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SUMMARY

The Port of San Francisco Embarcadero Historic District consists of over twenty piers and remnants of piers, a bulkhead wharf in twenty-one sections, a seawall, the Ferry Building, the Agriculture Building, and a collection of smaller buildings. These features are located along a three-mile stretch of San Francisco's waterfront in a discontiguous band broken into two parts separated by a water channel — China Basin. While most of the district lies north of China Basin, an area consisting of features associated with Pier 48 lies south of it. Within the boundaries of the district, the great majority of resources are eligible for the National Register of Historic Places, either individually or as contributors to the historic district.

In the descriptions below, the first structure to be described will be the seawall, which can be regarded as the foundation upon which the rest of the waterfront was constructed. The seawall description will be followed by descriptions of the bulkhead wharf and its sections, the piers, and assorted buildings. The seawall is counted as two structures — one in each of the two discontiguous parts of the district. The twenty-three sections of the bulkhead wharf are treated as twenty-three separate resources.

Maps and an aerial photograph of the district showing boundaries and contributing and non-contributing resources can be found after Section 11 at the end of this document.

For definitions of Port terminology and historic district resources refer to Section 8, Definitions, page 220.

Contributing resources are as follows:

Seawall:

from Pier 45 to China Basin– structure
at Pier 48 – structure

Bulkhead Wharf:

Pier 45 Section – structure
Section 2 – structure

Section 3 – structure
Section 4 – structure
Section 5 – structure
Section 6 – structure
Section 7 – structure
Section 8a – structure
Section 8b – structure
Section 8 – structure
Section 9 – structure
Section 10 – structure
Section 11a – structure
Section 11 – structure
Section 12 – structure
Pier 48 Section– structure

Piers and Buildings:

Pier 45 – building
Pier 43 (Car Ferry Headhouse) – structure
Pier 35 – building
Pier 33 – building
Pier 31 – building
Pier 29 – building
Pier 29 Annex (Belt Railroad) – building
Pier 23 Restaurant – building
Pier 23 – building
Pier 19 – building
Pier 17 – building
Pier 15 – building
Pier 9 – building
Pier 5 – building
Pier 3 (including Pier 1½) – building
Pier 1 – building
Ferry Building – building
Agriculture Building – building
Fire Station 35 (at Pier 22½) – building
Pier 24 Annex – building

Pier 26 – building
Pier 26 Annex – building
Pier 28 – building
Pier 28½ Restaurant – building
Pier 36 – building
Pier 38 – building
Pier 40 – building
Java House Restaurant, near Pier 40 – building
Pier 48 – building

Non-contributing resources are as follows:

Bulkhead wharf Section B – structure
Franciscan Restaurant, near Pier 43½ – building
Bulkhead wharf Section A – structure
Pier 41½ (portion on bulkhead wharf) – building
Bulkhead wharf Section 1 – structure
Pier 39 (portion on bulkhead wharf) – building
Pier 29 Office building – building
Pier 27 Terminal – building
Pier 15-17 Quay – structure
Terminal Office Building, Pier 15-17 – building
Pier 7 (Waterfront Restaurant) – building
Bulkhead wharf Section 13 – structure
Pier 46 Bulkhead Wharf Section - structure

Archeological resources are not addressed in this document.

ORGANIZATION OF SECTION 7

Individual resources are described in Section 7, below. These resources are organized by type — seawall, bulkhead wharf sections, pier and bulkhead connectors, and buildings — so that the types can be introduced separately. In addition, histories of these resources are included here, following the descriptions. These histories illuminate aspects of the descriptions, and they are

easier to use if they are presented here. These individual resource histories also supplement the thematic histories presented in Section 8.

Within the boundaries of the district there is a variety of types of buildings and structures. Many of these have complex interrelationships with one another that present difficulties in defining resources for the purposes of the National Register. For example, some complexes of features — notably the piers (each typically consisting of a transit shed, a bulkhead building, a pier substructure, and a section of the bulkhead wharf, all attached to the seawall) — are commonly known by a single name. This unified identity is often complicated by the histories of individual piers whose features may have been built under separate contracts at separate times. Moreover, while the seawall and the bulkhead wharf are essential to the construction of each pier, at the same time, they are linear features that are equally important to all piers.

For the purposes of this nomination, the seawall is considered as two contributing resources, separated by China Basin. The bulkhead wharf is considered as twenty-one separate resources, sixteen of which are contributing and five of which are non-contributing. Each pier is also considered as a single resource, consisting typically of a transit shed, a bulkhead building, and a pier substructure. Similarly, buildings on the bulkhead wharf (e.g., Pier 29 Annex, Fire Station 35, the Agriculture Building, and the Java House Restaurant) are each considered separate resources which are built over two other separate resources — the seawall and the bulkhead wharf.

Following the long-time practice at the port, the resources (sections of the bulkhead wharf, piers, and buildings) are presented from north to south.

CONTRIBUTING RESOURCES

SEAWALL

Figures illustrating the design of the seawall and the bulkhead wharf can be found after Section 11 at the end of this document.

Description

The 1878 – 1915 seawall is in two discontiguous pieces — from Pier 45 to China Basin, and for 500 feet at Pier 48 on the water bay front south of China Basin. The seawall on the north and south sides of China Basin inshore of the water bay front is not included in the district.

The seawall is a linear embankment of stone, concrete, and wood, which defines San Francisco's waterfront for over four miles along a curving line from the foot of Jones Street on the north to the mouth of China Basin on the east, and for an additional 500 feet south of China Basin. After fragments of a seawall were built in 1867-1869, a new realigned seawall was built from the foot of Taylor Street to China Basin over a period of 37 years, from 1878 to 1915, in twenty-one sections. This seawall was extended south of China Basin by 1910 (500 feet of this, corresponding to the 500 feet of the bulkhead wharf which was built for Pier 48, lies within the historic district) and one block west of Taylor Street to Jones Street by 1929. The 1878-1915 seawall is two contributing resources` in this historic district. The old 1867-1869 seawall is a potential archeological resource that was not considered in defining the district. It is assumed to lie largely if not entirely inshore of the district. Nevertheless, pieces of the old seawall may be incorporated in the new seawall.

The design of the sections of the 1878 – 1915 seawall varied depending in part on when they were built, and in part on soil conditions. The design of the original 1867 – 1869 seawall was illustrated by Lauren E. Crane, "expert on the construction of the seawall," in 1882 (Crane 1882). This design appears to have been followed in the construction of twelve sections of the seawall from 1878 to 1905 (in chronological order, sections A, 1, 2, 3, 4, 5, 6, 7, 8b, B, 8a, 13). This seawall consists of a pile of rocks, called a rock embankment, rising from a trench that was originally dug 20 feet deep and 100 feet wide. At mean high water, the embankment rises almost 40 feet above its base. The natural slopes of the embankment on either side rise to a flat top about ten feet wide. The outer toe of the sloping bay side of the embankment is located close to the water front line as defined by the U.S. Army Corps of Engineers. Wooden piles driven through the rock embankment from the toe to the inside edge of the flat top originally supported a wood wharf called a bulkhead wharf, generally ranging from 27 to 60 feet wide. By this means a useable surface was created over the sloping seawall to the edge of the water front line. Inland

of the rock pile lies earthen fill, described by Crane as an "earth embankment." In the earliest contracts, this embankment was built so that the bulkhead wharf and the earth embankment together provided a flat surface for a thoroughfare that was 200 feet wide at the level defined as the City Base. Between the earth embankment and the 1851 water front line were mud flats of varying widths that were subsequently filled.

With the availability of bond money in 1909, sections 8, 9, 10, 11, and 12 of the 1878 – 1915 seawall, south of the Ferry Building, were built to revised specifications, probably by H. J. Brunnier in the Board of State Harbor Commissioners' engineering department. An article in the *San Francisco Call* in 1910 described this as "a type of seawall construction entirely different from any heretofore constructed in this harbor" (Stafford 1910a), later described by the *San Francisco Examiner* as "especially strong" (*San Francisco Examiner* 1915b). While in some respects the general character of this seawall was similar, the structural supports for the bulkhead wharf, the materials, and the process of construction were different. In these sections, the trench was first partially filled with rock. Then, concrete piles were driven through the rock fill and more rock was added around the piles to a point 30 feet below City Base. From that point, a reinforced concrete wall was built along the crest of the pile and more rocks were filled around the wall. The wall and the caps of the concrete piles then formed a surface for a frame of steel beams to support the bulkhead wharf. (Newman 1915:326) Variations of this new design were built in sections 8, 9, and 10 (BSHC 1910:29-31, 34).

Although this revised system was designed in large part to counter the effects of settling, portions of the 1878 – 1915 seawall continued to settle. Sections 9a and 9b, the last to be built, were raised in 1917 and again in 1931-1932 after settling damaged the seawall, the wharves and piers, and the buildings on them (BSHC [1932]:21).

Studies showed that soil conditions ranged from hard surfaces to deep soft mud, situations that called for different design solutions. Among these was the use of creosoted wood piles in place of concrete in some situations (BSHC 1914:32). The seawall under the Agriculture Building (the Post Office at that time) settled unevenly, damaging the building. The building was jacked up and the seawall was raised in the mid-1920s (BSHC 1926:56-57).

The seawall is obscured from view by the bulkhead wharves and piers in all but two places. One of these places is near the foot of Folsom Street, a short distance north of Fire Station 35. Here, a promenade descends by means of a concrete staircase to the water, affording a view of the seawall. The other place the seawall is visible is between Piers 36 and 38. Here, the bulkhead wharf is only 10 feet in depth, and the seawall is easily visible from adjoining piers.

Although the seawall is mostly invisible, it remains intact at most places beneath the Embarcadero, and it continues to serve its original function of retaining landfill and acting as an abutment against which piers and wharves can be built. According to current (2003) Port Engineering, staff the 1878 – 1915 seawall has been little altered since it was completed in 1915 and portions were raised in 1932 due to settling — it has been repaired as needed over the years to maintain its original function.

Construction History

The need for a seawall in San Francisco was first recognized in 1851 (BSHC 1877-1878:9). A seawall was seen as a way to provide a fixed shoreline, to protect buildings along the shoreline, and to protect the value of waterfront property. As the early port was developed haphazardly by private interests under weak city control, it became increasingly clear that not only was a seawall needed but that neither the city nor private interests were capable of getting the job done. The takeover of the waterfront by the state of California and the creation of the Board of State Harbor Commissioners in 1863 was largely driven by the need for a seawall.

The first action of the Harbor Commissioners after acquiring the waterfront and settling title issues was to address the seawall question. Two local engineers, William J. Lewis and G. F. Allardt, proposed a plan for the seawall to be built following the water front line established by the Board of Tide Land Commissioners in 1851 (Dow 1973:17). This was a zigzag line defined by the edges of an extension of the city's grid over shallow tide lands along the existing shore. Lewis was hired as the Superintendent and Constructing Engineer for the seawall and presented the plan in the *First Annual Report of the Engineer of Sea Wall on the Water Front of San Francisco* of 1866 — a subsection of the Biennial Report of 1867. The plan and specifications for construction of the seawall were published in the Biennial Report of 1867. The first two

sections of the seawall were completed in 1869 and the third section was started in 1869 — these were the only sections of the first seawall to be built. The seawall appears to have been built in a simpler manner than was specified. (Newman 1915:326) It was an embankment of piled rocks with naturally sloping sides, 60 feet wide at its base in a trench dug for the purpose, and 13 feet across the top (City Base). It was built without a facing of large slabs on the water side and a masonry wall beginning at the mean low tide line. Behind this wall, sand and dirt were dumped, transforming the tide lands into solid ground whose streets were publicly owned and whose blocks were privately owned. As before, piers were built as extensions of streets projecting in a variety of angles to the waterfront.

In 1870, Thomas J. Arnold was placed in charge of the seawall and given the title "Engineer of Sea Wall" (BSHC 1871). In 1873, Arnold reported that construction on the seawall had stopped due to a lack of money. He stated that the seawall was a well-designed and well-built structure whose zigzag alignment appeared to be causing problems. The irregular waterfront line created pockets where mud and silt accumulated and the various angles of variously sized piers contributed to the problem. "The only remedy," according to Arnold was, "a modification of the line of the water front . . . and the enactment of such laws as would enable the Board to construct the wharves in such a manner, and upon such lines, that they would restrict the currents of the bay as little as possible" (BSHC 1873:13). The report included a map with a proposed waterfront line similar to that which was built and which survives today (2002).

In 1875, a federal Advisory Commission was appointed "for the purpose of determining proper harbor lines and considering any matter affecting harbor interests" (BSHC 1875) — "notably the issue of a new line for the seawall. The commission, consisting of Rear Admiral John Rodgers, U.S. Navy; Colonel George H. Mendel, U.S. Army Corps of Engineers; and Professor George Davidson, U.S. Coastal Survey, issued its report in March 1877. In the meantime, in February 1876, the state legislature required that a new waterfront line be established by the governor, the mayor of San Francisco, and the Harbor Commissioners following input from consulting engineers with the engineer of the Harbor Commission. Following the recommendations of the federal Advisory Commission and T. J. Arnold, a new waterfront line was established as presented in the *Report of the Board of State Harbor Commissioners on the New Water-Front*

Line of San Francisco to the Legislature of the State of California in December 1877. This was a gently curving line designed for economical construction and to facilitate the uninterrupted flow of tidal currents which would scour the surface of the harbor and minimize silting.

In addition, the line was placed so that the fill behind the seawall would be wide enough to allow "a thoroughfare two hundred feet in width along the whole city front" (BSHC 1877-1878:5). In addition to this thoroughfare, the fill between the new seawall on the new waterfront line and the old seawall on the 1851 line of the Tide Lands Commissioners, would provide a substantial amount of new land — called seawall lots — that would be owned by the Harbor Commissioners.

The new 1878 – 1915 seawall ran from Jones Street on the north side of the city to China Basin on the east, a distance of about four miles. It was to be built in sections because its funding was projected to come from the revenues of the port and would only be available in amounts sufficient to build sections of one thousand feet or less at a time. To accomplish this, the seawall was divided into twenty-one sections. The first contract was let 13 September 1878, followed by contracts with outside firms for the construction of each of the other sections. These were built in mixed order after starting on the north, due both to commercial considerations and to difficulties associated with soil conditions south of Market Street. By 1882, five sections were complete or underway. By 1894, eleven sections were complete. By 1906, twelve sections were complete. By 1910, a new section of the seawall, not originally planned, was built south of China Basin. This was built to the standards of the Harbor Commissioners, but paid for by the Santa Fe Railway Company which held a lease on the land behind it (BSHC 1910:28).

In 1909, a $9,000,000 bond issue was approved by the voters to hasten completion of the seawall, among other projects. The remaining sections of the original projected seawall were completed in May 1915 (*San Francisco Examiner* 1915b). Partly during the same period and partly afterward, the seawall was extended at both ends. Between 1908 and 1910, under a special agreement, the seawall was extended for 3000 feet south of China Basin to El Dorado Street by the Santa Fe Railway (BSHC 1910:28). It was also extended south of El Dorado Street to the Central Basin, Islais Creek, and Hunter's Point, mostly in the 1920s. By 1929, it was

extended one block west of Taylor Street to Jones Street, to accommodate the construction of Pier 45.

During its construction over a period of 37 years (1878 to 1915), the design of the original seawall was altered and the structure was repaired, as explained in the Description section, above. According to the Port's engineers, the seawall has been little altered since portions of it were raised in 1932 because of settling. Since that time, minor repairs have been made to maintain its original function.

In 1988, the 1878 - 1915 seawall was determined eligible for the National Register as part of the Section 106 process.

BULKHEAD WHARF

Figures illustrating the design of the seawall and the bulkhead wharf can be found after Section 11 at the end of this document together with a sketch map showing the sections of the bulkhead wharf.

Introduction

Description

The bulkhead wharf as it exists in 2004 can best be understood as a linear concept which was realized in many separately built structures which for the most part connect end to end and are the most visible expression of the underlying seawall to which they are attached. In concept, the bulkhead wharf is a linear feature parallel to the shoreline and on top of the seawall. Until about 1912, it was built in sections that corresponded to the twenty-one sections of the original seawall. Since that time it has been rebuilt in a changing pattern tied more closely to the construction of piers than to the sections of the extended 1878 – 1915 seawall. For purposes of the organization of the nomination, and following an abandoned but longtime practice of the past, the individual segments of bulkhead wharf which were rebuilt in as many as six parts within any given seawall section are identified by the corresponding seawall section in which they are located, and numbered from north to south. Although much of the bulkhead wharf was originally built of wood before 1909, by 1919 most of the wood sections were replaced with new sections built of

reinforced concrete and steel and by the 1930s all were replaced. Because the bulkhead wharf covers an area roughly corresponding to the space between the center of the seawall and the outer toe of the seawall (which is also the water front line), its design and dimensions depend on the design of the seawall below it.

Above those portions of the seawall built before 1909, the bulkhead wharf is generally narrower — as narrow as 27 feet according to one basic source (Newman 1915:326). (It is not clear why some existing sections measure 10 and 23 feet.) In that period, the seawall was a symmetrical structure with a flat top along its center. The concrete or concrete and steel deck of the bulkhead wharf spanned from the top of the seawall to the water front line, roughly above the toe of the seawall, supported by reinforced concrete piles.

Above those portions of the seawall built after 1909, the bulkhead wharf generally ranged from 51 to 60 feet in width. In that period, the seawall was built to a new design with a reinforced concrete wall, often called a retaining wall, on the western edge of the top of the seawall, so that the concrete or concrete and steel deck of the wharf, also supported by concrete piles, had a greater distance to span to the water front line.

Each wharf section has an asphalt surface. Most sections are furnished with mooring bitts — shown on the original plans and installed when the wharves were built — for the dockage of sea craft. In some places, buildings have been built on these wharves.

The following sections of the bulkhead wharf can be seen along the northeastern waterfront and appear to have been little altered:

- Section 4: Between Pier 23 and 27
- Section 5: Between Pier17 and Pier 19
- Section 5: In front of Pier 17
- Section 5: Between Pier 9 and Pier 15
- Section 6: Between Pier 5 and Pier 9
- Section 7: Between the Ferry Building and Pier 5
- Section 9: Between Pier 28 and Pier 30 (Here the wharf is about 27 feet in depth.)

- Sections 10 , 11a, 11: Between Pier 32 and Pier 36 (Here the wharf is about 23 feet in depth.)
- Section 12: Between Pier 36 and 38 (Here the wharf is about 10 feet in depth.)

The following sections of the bulkhead wharf have been completely or partially demolished:

- Section 9a: Between the foot of Folsom Street and the foot of Mission Street.

- Section 9 b: Between Pier 22½ and Pier 24 Annex at the inshore end of the former Pier 24, and between Pier 22½ and the foot of Folsom Street.

The depth of a few segments of the bulkhead wharf have been greatly increased in recent decades by connecting wharves. In such cases, the original structure still exists, but its original dimensions are no longer discernable due to enlargement. One example is the connecting wharf between Pier 15 and Pier 17, where all of the space between the piers was filled in 1956. The space between Pier 27 and Pier 29 was also filled, obscuring the outline of the bulkhead wharf, in 1967. The connecting wharf between Pier 31 and Pier 33 was increased in depth to about 160 feet at an unknown date. The wharf north of Pier 35 was widened in 1962.

In addition, other areas of the bulkhead wharf have been altered in character and function by surface changes to accommodate public access, open space, and recreational uses, such as between Pier 41 and Pier 35, in front of new Pier 7, and from Pier 40 to China Basin. The below deck or substructure portions of these wharves remain intact from the period of significance.

Except for portions of the bulkhead wharf built in association with the Ferry Building in 1895, the concrete bulkhead wharf was built between 1908 and 1936. During this period it was built according to various types of designs and the organization of its construction varied.

At first, the parts of the concrete bulkhead wharf were built according to the numbering system of the seawall sections. Beginning about 1912, they were usually built under the same contracts as the piers — sometimes the bulkhead wharf and the pier were constructed as a single structure. In the 1930s, several parts of the bulkhead wharf were built under separate contracts from the piers.

The earliest concrete bulkhead wharves, such as those in Sections 12, 11, and 7, were complicated designs. Sections of the bulkhead wharf adjacent to piers or proposed piers were built with heavier construction than between the piers. They were also a foot and a half higher in elevation at the piers than between them. These were built with a mix of poured-in-place concrete piles and timber piles encased in concrete. Their decks were steel I-beams encased in concrete. The decks were supported on alignments of piles from the top of the seawall to the water front line. At the piers, the decks rested on piles along the water front line itself. Between the piers, the decks were cantilevered to the water front line from an outermost row of piles that was a foot or more inshore of the water front line.

These complicated designs were succeeded briefly by simplified designs such as that for Section 11a. This was structurally consistent from one end to the other and from the top of the seawall to the water front line. In this case, the deck was cantilevered to the water front line for its entire length. The deck was a regular grid of beams.

These early types were succeeded by the predominant type represented by Piers 2, 19, 29, 39, and others. These were built on regular alignments of four or five precast concrete piles. The decks were poured in place reinforced concrete slabs that rested on piles at the water front line.

A few parts of the bulkhead wharf were more complicated versions of the predominant type with extra slab supports adjacent to the seawall and the outshore edge.

The section built for Pier 45 was unique because of the rock fill foundation of the pier. In this case, the bulkhead wharf was built largely through rock fill rather than over water. Also, the pattern of piles was not a series of straight alignments but the result of the collision of grids established by the line of the seawall and by the diagonal orientation of Pier 45.

In every case, additional supports were built into the decks for the alignments of rail spurs crossing the bulkhead wharf to the pier.

While the parts of the bulkhead wharf were built over the course of a 35 year period, under many different organizations (i.e., with a pier, without a pier, within a seawall section), and many different designs, they were tied together end to end and form a conceptually unified feature.

The individual parts of the bulkhead wharf are described by seawall section number from north to south, below (see Bulkhead Wharf map in Additional Documentation section at the end of this report).

Construction History

The bulkhead wharf was built along the top of the seawall in order to connect piers to the seawall and the Embarcadero and to provide berthing space for ships at the very outer edge of the seawall, which corresponded with the legally designated water front line. Because ships could not have come any closer to shore than the toe of the seawall, without the bulkhead wharf they would have remained as much as 60 feet away from the top of the seawall and the City Base. There would have been no way to load or unload ships along the seawall without the bulkhead wharf.

The design, dimensions, and materials of the bulkhead wharf are closely associated with the history of the seawall. The bulkhead wharf was built, repaired, and rebuilt in the same 21 sections as the seawall until about 1912. From 1878 to 1909, the bulkhead wharf was as narrow as 27 feet because the seawall was a symmetrical embankment and the inner edge of the bulkhead wharf rested on a 10-foot surface along the top of the center of the seawall (Newman 1915:326). Within that period, the bulkhead wharf was built of wood. The bulkhead wharf consisted of wood piles driven through the rock embankment of the seawall. These piles supported a wooden deck. At the outer edge of the wharf, at the water front line, were wood fender piles (Crane 1882:plate). Until 1909, a wood bulkhead wharf was included in each contract to build a section of the seawall.

In 1909, a program was established to replace wood sections of the bulkhead wharf with reinforced concrete and steel structures. According to the engineer in charge, the new concrete bulkhead wharves had the advantages of being “absolutely fireproof and they afford no opportunity for vermin to exist.” (BSHC 1910:23, 34) Shortly thereafter, the Harbor Commissioners announced that wood sections of the bulkhead wharf would normally be replaced by a concrete bulkhead wharf whenever a new pier was built in a section with an old bulkhead wharf structure. At the same time, “it was decided that the use of creosoted piling in certain cases would be preferable to the exclusive use of reinforced concrete.” (BSHC 1914:33) The

port experimented with poured-in-place reinforced concrete piles, precast concrete piles, and wood piles encased in concrete. Within a few years, most piles were precast but wood piles encased in concrete continued to be used at the edges and outer ends of piers because of their greater resiliency.

A by-product of the reconstruction of the bulkhead wharf in concrete was associated with the construction of a reinforced concrete "retaining wall" along the top of the loose seawall which provided a uniform surface in the right location for the inshore side of the bulkhead wharf: "The building of the new seawall and bulkhead in their true legally established locations has resulted in a very substantial and much-needed increase in the width of the Embarcadero, most of it from 15 to 45 feet, and over some notable stretches about 100 feet wider." (BSHC 1916: 23)

The wider sidewalk that this made possible, often built under the same contract as the bulkhead wharf, was labeled "esplanade" on port plans and Sanborn maps.

By mid-1918, all the sections of the bulkhead wharf between Pier 7 and the south side of Pier 19 were rebuilt in concrete. In addition, sections (9a and 9b) between Howard and Harrison streets, only recently constructed, were raised to compensate for settling of the seawall (BSHC 1919:38). As the bulkhead wharf was rebuilt, it appears to have generally conformed to the widths of the previous bulkhead wharf for the same reason — because the seawall sections underneath were designed differently.

The bulkhead wharf was reconstructed in phases that did not precisely correspond to the twenty-one sections of the seawall. In fact, by 1915 the port no longer used the seawall section numbers when referring to sections of the bulkhead wharf. For several years, new parts of the bulkhead wharf were built under the same contracts as piers and were referred to in association with the pier number. Some of the last parts of the bulkhead wharf were built under separate contracts but were still generally referred to by pier number.

Tables of information on all piers and wharves in the *Biennial Report* of 1922 listed only a few sections of the bulkhead wharf that had not been completely rebuilt at that time: at piers 5, 19, 25, and in Section B (BSHC 1923:table). In 1931, the *San Francisco Chronicle* reported that,

"One of the biggest and most difficult undertakings in the proposed replacement program of the Board will be the reconstruction of bulkhead sections between Piers 14 and 24. Some of these structures have sunk two feet or more . . ."(Roberts 1931).

Replacement of even those sections of the bulkhead wharf that were relatively simple to replace was time consuming and expensive. First, the wood piles of the old structure had to be removed. Then, reinforced concrete piles were driven through the rock embankment of the seawall.

While the term bulkhead wharf, strictly speaking, refers to the wharf above the seawall or the bulkhead, it was also sometimes used to refer to sections of the wharf that were parallel to the shoreline but that extended over the water beyond the edge of the seawall. Specifically, this was done between several pairs of piers — Piers 29 and 31, Piers 19 and 23, Piers 26 and 28, and Piers 30 and 32 (BSHC 1919:20; BSHC [1928]:map).

The bulkhead wharf was designed for the berthing of ships, as evidenced by mooring bitts or bollards on most sections of the wharf. Photographs show cargo ships alongside piers tied up by lines to the bulkhead wharf. In addition, smaller ships — lighters, barges, tugs, and others — were tied up at the bulkhead wharf. Trucks loaded with cargo also used the wharf, and cargo was piled on the wharf.

The wharf also supports buildings, notably the bulkhead buildings at the Embarcadero ends of most piers, housing offices, ticket agencies, and waiting rooms. On the old wood bulkhead wharf, Sanborn maps show many small one- and two-story wood buildings. These were generally located between the piers, with the wharf at the head of the pier unobstructed, allowing space for teams of horse to pull loads on and off the piers.

While there were some small buildings on the bulkhead wharf at the heads of the piers, none had a bulkhead building in the sense that it later came to be understood — a building on the bulkhead wharf at the inshore end of the pier that usually extended up and down the bulkhead wharf beyond the sides of the pier. The first new concrete bulkhead wharves were also built without bulkhead buildings. The 1913-1915 Sanborn maps show a pattern along most of the bulkhead wharf that was little changed from before. About that time, however, a new pattern emerged

with large bulkhead buildings at the heads of piers, often extending up and down the bulkhead wharf, and fewer small buildings on the bulkhead wharf. Those which were there were between the piers. Thus, the pattern was reversed. The pattern of buildings on the bulkhead wharf changed around the time the bulkhead wharves were rebuilt. However, the building pattern is related to other factors, such as expanded use of the Belt Railroad, evolving cargo handling methods, and security.

Freestanding structures for the chief wharfinger and assistant wharfingers, for shipping offices, for stevedoring companies, for offices, and for restaurants have all been built on the bulkhead wharf. Among these, only a few restaurants survive. Today, in addition to major structures like the Ferry Building, Agriculture Building, and bulkhead buildings, there are several freestanding buildings on the bulkhead wharf within the district in the traditional pattern — the Franciscan Restaurant near Pier 43½, Pier 29 Annex (Belt Railroad Office Building), the Pier 23 Restaurant, the Pier 28½ Restaurant, and Java House (near Pier 40). In 1978-1980, following a new pattern, buildings at Pier 41½ and Pier 39 were built partly on the bulkhead wharf.

Pier 45 Section

See also Pier 45 (Contributing Resource) and Section B of the bulkhead wharf (Non-Contributing Resource).

Description

Summary

The Pier 45 section of the bulkhead wharf is a reinforced concrete structure built in 1926-1929 along with Pier 45. It extends from east of the foot of Taylor Street to the foot of Jones Street. It measures 663 feet along the waterfront by 46 feet from the top of the seawall to the water front line. It is unusual in that it is built over solid rock fill rather than over water.

Visible changes to the Pier 45 Section of the bulkhead wharf are the paved asphalt surfaces and removal of the Belt Railroad tracks. In addition, the bulkhead wharf may have been altered along with Pier 45 when that structure was strengthened following the 1989 Loma Prieta earthquake (Port of San Francisco 2004).

Description

The Pier 45 section of the bulkhead wharf stretches 663 feet along the waterfront from east of the foot of Taylor Street to the foot of Jones Street. East of Taylor Street, it overlaps Section B. It is 46 feet wide. It was built in 1926-1929.

The Pier 45 bulkhead wharf is an unusual structure both in the design of its parts and in the fact that it is built through a solid rock fill rather than over water. Its parts are like other bulkhead wharves, consisting of a concrete deck that spans from the seawall to the water front line with intermediate support from concrete piles. However, instead of the usual straight alignments of piles between the seawall and the water front line, the piles are in a complex pattern created by the juxtaposition of three different patterns within the area of the bulkhead wharf. From the seawall, there are perpendicular alignments of piles. Other alignments of piles parallel to the axis of the pier, which is diagonal to the seawall, intersect with the first alignments of piles in an irregular pattern. Overlaid on these are three curving alignments of piles for rail spurs.

The buildings associated with Pier 45 are all on the piers so that the bulkhead wharf is open.

Visible changes to the Pier 45 Section of the bulkhead wharf are repaving of the asphalt surfaces and removal of the Belt Railroad tracks. In addition, the bulkhead wharf may have been altered along with Pier 45 when that structure was strengthened following the 1989 Loma Prieta earthquake (Port of San Francisco 2004).

Construction History

The bulkhead wharf at Pier 45 was built on a portion of the seawall that appeared on a map in the 1908-1910 biennial report. At that time there was no bulkhead wharf. The 1912-1914 biennial report showed a bulkhead wharf extending from the west end of Section B to Jones Street. The design and materials of this structure are unknown.

The modern bulkhead wharf appears to have been built in association with the construction of Pier 45, which was first studied in alternative designs during the biennium 1924-1926 (BSHC 1926: 59). Pier 45 was designed in a unique manner in relation to other San Francisco waterfront structures. “Three complete sets of plans were prepared, one for a open pile structure and the

other two for a solid fill structure, the difference being in the type of bulkhead retaining wall for enclosing the filled section . . . the contract was awarded for construction of a structure with a filled core enclosed by loose rock retaining walls" (BSHC 1928: 37). Because of this design, the bulkhead wharf as it is usually defined — as the structure that provides a flat surface between the top of the seawall and the water front line, and allows bay water to ebb and flow around the piles outshore of the seawall — does not apply. In this case, the solid rock fill under the pier extends from the seawall to the outer end of the pier so that no water flows under the bulkhead wharf against the seawall.

At the same time, the normal area of the bulkhead wharf between the top of the seawall and the water front line is bridged by a structure of concrete piles and a concrete deck, like other bulkhead wharves. Photographs of the "Pier 45 substructure under construction" in the 1928-1930 biennial report show a central core of earth fill extending outward from the water front. "Pier 45 and adjacent bulkhead wharf" were built under a contract dated 28 October 1926 and completed 30 January 1929. The work was done by Healy-Tibbitts Construction Company at a cost of $1,090,842.00 (BSHC 1931: 20, 75).

The Pier 45 sheds, built at the same time, are transit sheds that do not extend to the bulkhead wharf.

The history of the Pier 45 section of the bulkhead wharf is associated with the history of Pier 45.

Section 2

See also Pier 35 (Contributing Resource), Pier 33 (Contributing Resource), and Pier 35-37 Connecting Wharf Building Section 8 (Lost Feature).

Description

Summary

Section 2 of the bulkhead wharf is in two principal parts built in 1914-1916 and 1917-1919. These are reinforced concrete structures built from north to south in association with Piers 35 and 33 and their bulkhead buildings. In addition, a 1937 connecting wharf between Piers 35 and 37, part of which is in Section 2, is still standing, although the shed built on that wharf has been

removed. The Belt Railroad tracks have been removed and the outdoor asphalt surfaces of the bulkhead wharf have been repaved. The substructure of Section 2 appears little altered.

Description

Section 2 of the bulkhead wharf is in two parts built on Section 2 of the seawall. Section 2 of the seawall is 1,000 feet long and was built in 1878-1880. Section 2 stretches from the foot of North Point Street on the north, almost to the foot of Francisco Street on the south.

The northernmost of the two parts of Section 2 of the bulkhead wharf was built in 1914-1916 in association with Pier 35. The details of the construction of this part of the bulkhead wharf are not known. The floor framing plan is a consistent grid from one end to the other, except for additional support where the Belt Railroad crossed the bulkhead wharf from the Embarcadero to the aprons on each side of the pier. As this structure has been described as similar to the bulkhead wharf at Piers 19, 29, and 39, this part of the bulkhead wharf is probably supported on alignments of concrete piles from the seawall to the water front line.

The southernmost of the two parts of Section 2 of the bulkhead wharf was built in 1917-1919 in association with Pier 33. A plan of the inner end of the substructure of Pier 33, shows an irregular bulkhead wharf structure of varying widths — 44 feet at the north end and in front of the pier, nearly 50 feet at the south side of the pier, and 42 feet at the south end. For most of its length there appear to be alignments of three piles between the top of the seawall and the water front line. In some of the first and last bays of the grid of the deck between the seawall and the water front line, there are additional supports parallel to the water front line. There are also additional supports in two curving alignments of the Belt Railroad onto the pier and for “Globe Milling Co.’s Tunnel.”

Outshore of the bulkhead wharf between Piers 35 and 37 there is a connecting wharf, originally described as being:

> . . . irregular in shape but has an average length of 285 feet and an average width of 90 feet. The wharf, which was elevated truck height above the street, was constructed on timber piles with precast reinforced concrete jackets and the

timber deck was paved with asphalt. The building is a timber structure with continuous steel rolling doors along the Embarcadero. (BSHC [1938]: 51)

The building has been demolished, but the wharf remains.

Outshore of the bulkhead wharf between Piers 31 and 33 outside of the district boundaries, there is a connecting wharf, built in 1962, that expands the open space between the piers. Roughly half of this appears to be outshore of Section 2 and half outshore of Section 3 of the bulkhead wharf. There are mooring bitts and fenders at the outshore edge of this extended wharf.

In association with Section 2 of the bulkhead wharf, the wood shed on the connecting wharf between Piers 35 and 37, part of which stood in Section 2, has been removed and the surface of the wharf has been altered. Apart from this, the major structures associated with the Section 2 bulkhead wharf remain — Pier 35 and Pier 33 and the sections of the bulkhead wharf, the bulkhead buildings, and the piers and transit sheds. The Belt Railroad tracks have been removed and the paved asphalt surface has been repaved. The substructure of Section 2 appears little altered. The altered connecting wharf between Piers 35 and 37 post dates the district's period of significance and therefore is outside the district boundaries.

Construction History

Section 2 of the bulkhead wharf was built in two phases from 1914-1916 and from 1917-1919. It was built on top of section 2 of the seawall, built in 1879-1880. Section 2 of the seawall is 1,000 feet long. Until the old wood bulkhead wharf was demolished for these new reinforced concrete structures, Section 2 of the bulkhead wharf supported a large grain shed for most of its length, extending northward to Section 1. (BSHC 1913: map).

The first part of Section 2 of the bulkhead wharf was built under a contract dated 9 July 1914, together with Pier 35. The work was completed 15 June 1916 by Healy-Tibbitts Construction Company at a cost of $435,505.28. (BSHC 1916: 96-97). According to the biennial report of the Board of State Harbor Commissioners, "The contract for the pier included a section of reinforced concrete bulkhead wharf, 45 feet wide and 494 feet long" (BSHC 1916: 36). Its design was similar to Piers 19, 29, and 39. However, plans prepared by A.C. Griewank under the supervision of Jerome Newman, Assistant State Engineer dated 20 April 1914 show slight

differences from the text description — plans show that this part of the bulkhead wharf is 492 feet long and that while it is 45 feet wide at the ends, it is approximately 55 feet wide where the bulkhead wharf meets the north side of Pier 35. The same contract included a transit shed on the pier and a bulkhead building on the bulkhead wharf. The bulkhead building was designed to be 316 feet long by 33 feet wide and to cover a portion of the bulkhead wharf beginning at the south end. There were no buildings on the north end of this portion of the bulkhead wharf as it was first built.

In 1937, a connecting wharf (defined in Definitions – Section 8) was built between Pier 35 and Pier 37 extending from the outshore edges of Sections 1 and 2 of the bulkhead wharf, which formed a continuous line along the water front line, out into the bay. When the connecting wharf was completed, a shed was built that stood partly on the bulkhead wharf associated with Pier 35 in Section 2, partly on the bulkhead wharf associated with Pier 37 in Section 1, and partly on the new connecting wharf. This was described by the Board of State Harbor Commissioners at the time it was built:

> The need for adequate facilities for the handling of intercoastal package cargo has been definitely established and the adaptability of connecting bulkhead wharves and buildings at the shore ends of the piers has been satisfactorily demonstrated by the use of two such structures over a period of several years. During the biennium another facility of this type was constructed between Piers 35 and 37.. . . The wharf and building were completed and accepted by the Board on May 13, 1938. (BSHC [1938]: 51)

This was designed by H.B. Fisher under the supervision of Frank G. White, Chief Engineer 14 May 1937.

The second part of Section 2 of the bulkhead wharf was built under a contract dated 6 September 1917, together with Pier 33. The work was completed 6 February 1919 by Healy-Tibbitts Construction Company at a cost of $330,919.05. (BSHC 1921: 99) Plans for the bulkhead wharf and the pier substructure were prepared under the supervision of Frank G. White, Chief Engineer. No one was listed on the plans as being in charge of the design. However, G.A. Wood, AWN (Alfred W. Nordwell), S. (?) E. Evans, and William G. Winter all signed the plans

dated 4 June 1917. Pier 33 was designed so that "The bulkhead building connects with the one previously constructed in connection with Pier 35, making a continuous front 622 feet in length " (BSHC 1921: 40).

The 1949 Sanborn map showed that a small pier projecting into the bay from the bulkhead wharf behind the north wing of the Pier 33 bulkhead building supported a hose rack for the fireboat Dennis Sullivan.

In 1962, the bulkhead wharf was extended outshore between Pier 31 and Pier 33 with a new connecting wharf "supported on pre-stressed concrete piles." This was done to accommodate a new tenant in Piers 29, 31, and 33, the Pacific Far East Line. (*Portside News* 1962).

The history of Section 2 of the bulkhead wharf is associated with the histories of Pier 35, Pier 33, the connecting wharf between Pier 35 and Pier 37, the fireboat pier behind Pier 33, and the operation of the Belt Railroad. The Pier 35 and Pier 33 bulkhead buildings, with their piers and transit sheds, are still standing. The connecting wharf between Pier 35 and Pier 37 is still standing, but the shed on the connecting wharf has been removed. The fireboat pier has been removed.

Section 3

See also Pier 31 (Contributing Resource), Pier 29 (Contributing Resource), Pier 29 Office Building (Non-Contributing Resource), Pier 29 Annex (Belt Railroad Office Building) (Contributing Resource), Pier 27 Terminal (Non-Contributing Resource), and Pier 27 Section 8 (Lost Feature).

Description

Summary

Section 3 of the bulkhead wharf was built of reinforced concrete in three parts. The first part was built in association with Pier 29 in 1915-1916. The second part was built in association with Pier 31 in 1917-1918. The third part was built in association with Pier 27 in 1918-1919. Bulkhead buildings were built on each of these parts. The bulkhead building and connecting building (defined in Definitions – Section 8) that links Piers 31 and 29 is still standing. The

bulkhead building on the wharf at Pier 27 has been removed. Today, following the demolition of Pier 27 in 1948, the southern end of the Section 3 bulkhead wharf supports the Pier 29 Annex, moved to the site in 1918 for the Belt Railroad, and is adjacent to a connecting wharf between Pier 29 and modern Pier 27.

Section 3 of the bulkhead wharf appears to be little altered except for removal of the Belt Railroad tracks, repaving of its original asphalt surface, and construction of an office building on its surface between Pier 27 and Pier 29 in 1962.

Description

Section 3 of the bulkhead wharf was built in three reinforced concrete sections. It was built on Section 3 of the seawall, a 1,000 foot long structure built in 1879-1881. The three parts were built in association with Pier 29 in 1915-1916, Pier 31 in 1917-1918, and Pier 27 in 1918-1919. Section 3 stretches from the foot of Lombard Street to a point west of the foot of Francisco Street.

The portion of the bulkhead wharf built in association with Pier 29 was described at the time it was built as “a section of reinforced concrete bulkhead wharf, 44 feet wide and 608 feet long, extending each side of the pier. This bulkhead wharf is similar in type to that described in connection with Pier 39” (BSHC 1916: 35). This is a wharf that spans the distance from the top of a new concrete retaining wall on top of the rock seawall to the water front line on four concrete piles. These support “a reinforced concrete deck paved with asphalt.” (BSHC 1914: 45).

The portion of the bulkhead wharf built in association with Pier 31 is a reinforced concrete structure 256 feet long and 45 feet wide. Engineering drawings show this to be similar in construction to the bulkhead wharf at Pier 29, with the bulkhead wharf supported on alignments of four concrete piles between the top of the seawall and the water front line.

Outshore of the bulkhead wharf between Piers 29 and 31, there is a concrete connecting wharf on concrete piles measuring 150 feet wide and 245 feet long. Linking Piers 29 and 31 is a single bulkhead building that sits on the bulkhead wharf and the connecting wharf.

Outshore of the bulkhead wharf between Piers 31 and 33, there is a connecting wharf, built in 1962, that expands the open working area between the piers. Roughly half of this appears to be outshore of Section 2 and half outshore of Section 3 of the bulkhead wharf. There are mooring bitts and fenders at the outshore edge of this extended wharf. This connecting wharf is within the district boundary because it is an integral part of the Piers 31 and 33 resource complex.

The portion of the bulkhead wharf built in association with Pier 27 is "of typical reinforced concrete pile construction." It is 45 feet wide and, together with the adjoining wharf in section 4, is 303 feet long. (BSHC 1921: 37). Pier 27 itself has been demolished and the outshore area of the southern part of Section 3 of the bulkhead wharf is a connecting wharf between Pier 29 and the modern Pier 27 built in 1965.

Section 3 of the bulkhead wharf appears to be little altered except for removal of the Belt Railroad tracks, repaving of its original asphalt surface, and construction of an office building on its surface between Pier 27 and Pier 29 in 1962.

Construction History

Section 3 of the bulkhead wharf was built on Section 3 of the seawall (1,000 feet long), which was built in 1879-1881. It was built in association with three piers, Pier 27, Pier 29, and Pier 31 and a bulkhead connector between Piers 29 and 31. Prior to its reconstruction in concrete, there was a grain elevator, a two-story warehouse, car ferry slips, and cattle corrals on the wood bulkhead wharf in Section 3 (BSHC 1913: 10, map).

The first modern part of the bulkhead wharf in Section 3 was built in association with Pier 29. Pier 29 was built under a contract dated 18 November 1915 and completed 29 November 1916. It was built by Clinton Construction Company for $293,493.96. (BSHC 1919: 88-89) "In addition to the pier, the contract included the construction of a section of reinforced concrete bulkhead wharf, 44 feet wide and 608 feet long, extending each side of the pier. This bulkhead wharf is similar in type to that described in connection with Pier 39" (BSHC 1916: 35). The substructure of Pier 29 including the bulkhead wharf was designed under the supervision of Jerome Newman, Chief Engineer. Drawings dated 25 August 1915 were signed by Wood (G.A. Wood), A.C. Griewank, and L.T. Klein, without any indication of an engineer in charge. The

biennial report included a photograph of "Pier 29 During Construction" showing the outer edge of the new bulkhead wharf (BSHC 1916: between 24 and 25). When the pier was completed, before a bulkhead building was built, a photograph in the biennial report showed the inshore end of the transit shed with Chinese characters and the English words "China Mail S.S. Co." (BSHC 1919: 56)

The second part of the Section 3 bulkhead wharf was built in association with Pier 31. These structures were built under a contract dated 5 April 1917 and completed 8 August 1918. This work was carried out by Healy-Tibbitts Construction Company for $307,752.97. (BSHC 1921: 98) The Board of State Harbor Commissioners published a photograph in the biennial report of "Piers 31 and 33 During Construction" showing the completed deck of Pier 31 before it was paved (BSHC 1919: between 36 and 37).

The substructure for Pier 31 including the bulkhead wharf was designed under the supervision of Frank G. White, Chief Engineer, on drawings dated 1 February 1917. The drawings were signed by G.A. Wood, A.W.N. (A.W. Nordwell), and D.C. Hill, with no indication of who was in charge.

According to the Board of State Harbor Commissioners, Pier 31 was built in association with other features that linked Piers 29 and 31 together: "In conjunction with the pier there were constructed a section of bulkhead wharf 256 feet in length and 45 feet in width, and a wharf 150 feet in width and 245 feet in length connecting Piers 29 and 31. The bulkhead wharf and connecting wharf are also of reinforced concrete construction on concrete piles." (BSHC 1919: 34)

Following completion of Piers 29 and 31, the portions of the bulkhead wharf associated with them and a connecting wharf outshore of the bulkhead wharf between them, a single long bulkhead and connecting building was built in 1918-1919 linking Piers 29 and 31 (BSHC 1921: 102). This building stretched 610 feet along the Embarcadero. (BSHC 1919: 34) It enclosed 8,800 square feet of "additional cargo handling space" (BSHC 1921: 120).

The last piece of the Section 3 bulkhead wharf was built in association with Pier 27. Although Pier 27 straddles the line between Section 3 and Section 4, the bulkhead wharf for Pier 27 was built in two parts, one largely if not entirely in Section 3 and the other in Section 4. The Board of State Harbor Commissioners explained this as follows: "In order to permit of relocating the railroad track leading to the north side of Pier 27 a section of bulkhead wharf was constructed extending across approximately the northern half of the pier. A second section is now under construction from this first section to Pier 25." (BSHC 1921: 37) That portion of the Pier 27 bulkhead wharf built in section 3 was begun under a contract dated 1 August 1918 and completed 27 March 1919. It was built by J.D. Hannah for $13,845.33. (BSHC 1921: 104).

"Following the completion of the bulkhead wharf adjacent to Pier 27 . . . a bulkhead building was constructed in front of Pier 27 and over the wharf between Piers 27 and 25." This bulkhead wharf building was built in 1920-1921. A photograph of the completed Pier 27 bulkhead building appeared in the biennial report for 1920-1922 (BSHC 1923: 12, 31, 77). Pier 27, called the "potato wharf" was demolished in 1948 (Port of San Francisco 1948: 6).

In 1962, the bulkhead wharf between Pier 31 and Pier 33 was extended outshore with a new connecting wharf "supported on pre-stressed concrete piles." In the same year the old Pier 27 bulkhead building was remodeled as — or replaced by — the Pier 29 Office Building. All of this work was carried out to accommodate the Pacific Far East Line (*Portside News* 1962).

The history of Section 3 of the bulkhead wharf is associated with the history of the piers built out from it — Piers 27, 29, and 31, and with the operation of the Belt Railroad. In 1918, a small office building was moved from the bulkhead wharf in Section 7 to the bulkhead wharf just north of Pier 27 to serve as the Belt Railroad office. This is still standing. The 1949 Sanborn map showed a very small one-story wood office on the bulkhead wharf south of Pier 27. This has been removed.

Section 4

See also Pier 25 Section 8 (Lost Feature), Pier 23 (Contributing Resource), Pier 27 Section 8 (Lost Feature), Pier 27 Terminal (Non-Contributing Resource), Pier 23 Restaurant (Contributing Resource), and Pier 19 (Contributing Resource).

Description

Summary

Section 4 of the bulkhead wharf was built of reinforced concrete in two parts. These were built to serve old wood piers 21, 23, 25, and part of 27, all subsequently demolished. The bulkhead wharf between old Piers 25 and 27 was built in 1920. The bulkhead wharf between old Piers 21 and 25 was built in 1921-1922. New concrete Pier 23 replaced Piers 21 and 23 in 1930-1932. New concrete Pier 19 (largely in Section 4) replaced old wood Pier 19 (in Section 5) in 1936-1938. Part of Pier 27 Terminal occupies the site previously occupied by Piers 25 and 27. Pier 23 Restaurant was built on the Section 4 bulkhead wharf in 1937.

Since the period of significance, Piers 27 and 25 have been removed along with their bulkhead buildings. In addition, Pier 27 Terminal has been built including a connecting wharf, triangular in plan, outshore of the bulkhead wharf between Pier 27 and Pier 29. The bulkhead wharf itself appears to remain intact.

Description

Section 4 of the bulkhead wharf was built in two parts independently of the piers in Section 4. Originally built for old wood piers 21, 23, 25, and part of 27, today most of Pier 19, Pier 23, and part of Pier 27 Terminal are standing along Section 4 and the Pier 23 Restaurant sits on the bulkhead wharf for Section 4. Section 4 stretches 1,000 feet from a point between the foot of Union and the foot of Filbert streets to the foot of Lombard Street.

The part of the bulkhead wharf stretching from the north side of old Pier 25 to approximately the midpoint of old Pier 27 — an area largely abutting Pier 27 Terminal today — at the north end of Section 4, was built in 1920. Nothing is known about this except that it is of reinforced concrete construction.

The part of the bulkhead wharf at the southern end of Section 4, stretching from old Pier 21 to old Pier 25 — the area between Pier 19 and Pier 27 Terminal today — is of “reinforced concrete pile construction.” It is 46 feet wide and 745 feet long. (BSHC 1921: 53). It is “of standard design” (BSHC 1923: 31). No other details are known about this structure.

Since the period of significance, Piers 27 and 25 have been removed along with their bulkhead buildings. In addition, Pier 27 Terminal has been built. The bulkhead wharf substructure itself appears to remain intact.

Construction History

Section 4 of the bulkhead wharf was built on Section 4 of the 1878 – 1915 seawall,. Section 4 was built of reinforced concrete in association with old wood piers 21, 23, 25, and 27, with Pier 27 straddling the line between Section 4 and Section 3. Old Piers 21 and 23 were demolished for a new concrete Pier 23 in 1931-1932; Old Pier 27 was demolished in 1948; and old Pier 25 was demolished after the period of significance about 1965 to make way for Pier 27 Terminal.

The earliest indication of efforts to build a concrete bulkhead wharf in Section 4 was a brief statement in the biennial report for 1916-1918 that designs were underway for "Permanent bulkhead wharves to replace the existing wharves in front of Pier 19 and from Pier 21 to Pier 27." (BSHC 1919: 49) Pier 19 was in Section 5, and Pier 21 to the south side of Pier 27 was in Section 4.

According to the biennial report for 1918-1920, referring to Pier 19 to Pier 25, "The existing wharves at this location are in a very unstable condition and should be replaced with reinforced concrete structures in order to avoid heavy maintenance expense. Plans for this work have been prepared and approved." (BSHC 1921: 58).

According to the biennial report for 1920-1922, "Two sections were constructed, one across the end of Pier 19 and the other extending from the south side of Pier 21 to the north side of Pier 25" (BSHC 1923: 31). This work was begun under a contract dated 20 October 1921 and completed 18 July 1922. The work was done by Tibbitts Pacific Company for $73,961.73. (BSHC 1924: 40). Although built under one contract, these are always described as two separate parts. A photograph of the "Bulkhead wharf, Piers 19 to 25" under construction appeared in the 1920-1922 biennial report (BSHC 1923: 24).

Around the same time, another contract was signed for "constructing bulkhead wharf in front of Pier 27 connecting existing bulkhead wharves at Piers 25 and 29 and constructing creosote piles

connecting wharf between Piers 25 and 27" (BSHC 1923: 76). These structures were built under a contract dated 27 February 1920 and completed 2 December 1920 by Healy-Tibbitts Construction Company at a cost of $38,858.64. (BSHC 1923: 76).

With the completion of the bulkhead wharves in Section 4, bulkhead buildings were constructed on the bulkhead wharf for existing piers. A bulkhead building was built in this section of the bulkhead wharf for Pier 27 in 1920-1921 (BSHC 1923: 77).

According to the biennial report for 1924-1926, the engineering department was working on "Detail plans for a bulkhead building extending from the south side of Pier 23 to the north side of Pier 25 . . . The plans also include an extension of the wharf . . . of creosoted pile and timber construction." (BSHC 1926: 61). A plan for the "connecting wharf between Piers 23 and 25," dated 26 August 1926 was prepared under the supervision of Frank G. White, Chief Engineer. The name of the engineer in charge is not legible. "Covered bulkhead wharf space is continually being used to greater advantage, and in order to provide additional space of this sort a bulkhead building was constructed extending from the north side of Pier 25 to the south side of Pier 23 . . . The wharf extension was completed on December 23, 1926, and the building on May 5, 1927." (BSHC 1928: 41).

In 1930-1932, old wood Piers 21 and 23 including their bulkhead buildings were demolished and new concrete Pier 23 was built along Section 4 of the bulkhead wharf. In 1937, the Pier 23 Restaurant was built on the bulkhead wharf north of Pier 23. In 1948, Pier 27 and its bulkhead building were demolished, leaving the surface of the bulkhead wharf open. About 1965, Pier 25 and its bulkhead building were demolished for construction of new Pier 27 Terminal. Pier 27 Terminal included a new triangular connecting wharf between Pier 27 and Pier 29.

The history of Section 4 of the bulkhead wharf is associated with the history of old wood piers 21, 23, 25, and 27, with new concrete Pier 19, new concrete Pier 23, Pier 27 Terminal, Pier 23 Restaurant, and with the operation of the Belt Railroad.

Section 5

See also Pier 19 (Contributing Resource), Pier 17 (Contributing Resource), Pier 15 (Contributing Resource), Pier 15-17 Quay (Non-Contributing Resource), and Terminal Office Building, Pier 15-17 (Non-Contributing Resource).

Description

Summary

Section 5 of the bulkhead wharf is in four parts, built between 1912-1913 and 1921-1922. These are all reinforced concrete structures, built from north to south, in association with old Pier 19 in 1921-1922; with Pier 17 in 1912; with old wood Pier 15 (replaced by a new concrete Pier 15 in 1930-1931) in 1914-1915; and with Pier 11 (demolished prior to 1936) in 1916-1917.

Since the end of the period of significance, Section 5 of the bulkhead wharf has changed in the following ways: asphalt surfaces have been repaved, Belt Railroad tracks have been removed, and Piers 15 and 17 have been connected, generating truck traffic across the bulkhead wharf.

The structure of Section 5 appears little altered since the period of significance.

Description

Section 5 of the bulkhead wharf is in four parts, built on Section 5 of the seawall — 1,000 feet long — built in 1883-1884. The four parts were built between 1912-1913 and 1921-1922. Section 5 of the bulkhead wharf is described below from north to south.

The northernmost section was built in 1921-1922. According to an early description, it measures 745 feet along the waterfront and is 46 feet wide (BSHC 1921: 53). Plans of Pier 19 show it to be 60 feet wide at that point. A photograph of this portion of the bulkhead wharf under construction appeared in the biennial report for 1920-1922. (BSHC 1923: 24, 31). The south side of Pier 19 projects into the bay from the north end of Section 5 of the bulkhead wharf — the rest of Pier 19 is in Section 4.

The Board of State Harbor Commissioners described this part of the bulkhead wharf as “of reinforced concrete of standard design” (BSHC 1923:31). The only available detail about this

design is from a plan of the similarly designed Pier 23 prepared by the Board of State Harbor Commissioners, indicating that the deck of the bulkhead wharf is supported by alignments of five piles from the top of the seawall to a point just short of the water front line with a cantilever past the last pile to the water front line.

The next part of Section 5 of the bulkhead wharf to the south, measuring 324 feet along the waterfront, was completed in 1912 as part of Pier 17. The concrete deck of the bulkhead wharf rests on alignments of four concrete piles. Although described as sixty feet wide, drawings indicate that the distance from the top of the seawall to the water front line is only about 45 feet, a distance consistent with the use of four piles (BSHC 1913: 40).

The next part of Section 5 of the bulkhead wharf to the south was built in 1914-1915 in association with old Pier 15, a wood structure. This was replaced by a concrete Pier 15 in 1930-1931. The bulkhead wharf measures 101 feet along the waterfront and forty-one feet from the top of the seawall to the water front line. It is "supported on reinforced concrete piles driven through the old rock seawall. There is a concrete retaining wall at the inside, carried down to thirteen feet below city base and resting on wooden piles also driven through the seawall. The deck is of the usual girder, beam and slab type and is paved with asphalt" (BSHC 1914: 47).

The southernmost part of Section 5 of the bulkhead wharf was built in 1916-1917 adjacent to an existing wood pier, Pier 11 (demolished prior to 1936). The design of this part of the bulkhead wharf was described by the Board of State Harbor Commissioners as similar to Piers 29 and 39. Only Pier 39 has been described by the Board of State Harbor Commissioners: concrete piles were driven through the old rock seawall, "supporting a concrete deck paved with asphalt. The retaining wall is 16 inches thick and is carried down to nine feet below city base." From a plan of Pier 39, it appears that the bulkhead wharf was supported by four concrete piles between the seawall and the water front line. (BSHC 1914: 36, 45).

Today, there are mooring bitts and a mooring cleat (defined in Definitions – Section 8) along the edge of the bulkhead wharf between Pier 9 and Pier 15, and there are mooring bitts between Pier 17 and Pier 19.

Since the end of the period of significance, Section 5 of the bulkhead wharf has changed in the following ways: asphalt surfaces have been repaved, Belt Railroad tracks have been removed, and Piers 15 and 17 have been connected by the construction of a connecting wharf the entire length of the piers, referred to by Port's Engineers as a pier "Valley". The construction of this connecting wharf allowed the piers to be adapted to truck transportation, with truck traffic entering the complex across the bulkhead wharf.

Construction History

Section 5 of the bulkhead wharf was built in four phases from 1912 to 1922. It was built on top of Section 5 of the seawall, built in 1883-1884. Section 5 is 1,000 feet long.

The first part of Section 5 bulkhead wharf was built under a contract dated 22 January 1912, together with Pier 17. The work was completed 8 May 1913 by Healy-Tibbitts Construction Company at a cost of $243,049.69 (BSHC 1914: 109). The Board of State Harbor Commissioners described it at the time as "a length of 324 feet of bulkhead wharf and concrete seawall. This wall rests on timber piles driven through the old rock seawall, which has been in place twenty-eight years and is therefore well settled and compacted. The bulkhead wharf floor is of reinforced concrete resting on reinforced concrete piles driven through the old rock wall." (BSHC 1913: 43). The designer of Pier 17 had initials R.G.W. (or F.G.W.?) — perhaps Frank G. White, later Chief Engineer.

The history of this part of the bulkhead wharf is associated largely with the history of Pier 17, and with the operation of the Belt Railroad. It is also associated with Pier 15 beginning in 1955-1956, when Piers 15 and 17 were joined by a connecting wharf and adapted for truck transportation in addition to the Belt Railroad.

The second part of the Section 5 bulkhead wharf was built under a contract dated 4 June 1914 and completed 21 January 1915. The bulkhead wharf was built under the same contract as a new structure called Pier 15. The designer of this section of the bulkhead wharf is unknown. The work was done by the San Francisco Bridge Company at a cost of $71,602.68. (BSHC 1916: 92-93). According to the Board of State Harbor Commissioners when the work was beginning:

> The contract for this pier includes the building of a section of reinforced concrete bulkhead wharf back of the pier and 101 feet northerly, having a width of 41 feet and supported on reinforced concrete piles driven through the old rock seawall. There is a concrete retaining wall at the inside, carried down to thirteen feet below city base and resting on wooden piles also driven through the seawall. The deck is of the usual girder, beam and slab type and is paved with asphalt. (BSHC 1914: 47)

The Pier 15 built with Section 5 of the bulkhead wharf was built "to replace the old one at the same place, condemned on account of its dangerous condition . . . It is a creosoted pile pier with timber deck" (BSHC 1914: 47). This wood pier was itself replaced by a new concrete pier in 1930-1931.

The history of this portion of the Section 5 bulkhead wharf is associated with the history of the piers built adjacent to it. The wood pier built with the concrete bulkhead wharf in 1914-1915 was built for coal bunkers, the need for which declined substantially with the shift to fuel oil in the 1920s. For most of its history, this part of the bulkhead wharf was associated with the operation of the Belt Railroad. Beginning in 1955-1956, the history of this part of the bulkhead wharf was also connected to the history of Pier 17 and to the operation of trucking lines as well as the Belt Railroad.

The third part of the Section 5 bulkhead wharf was built under a contract dated 1 March 1916 and completed 29 March 1917. It was built by the Healy-Tibbitts Construction Company at a cost of $114,985.63. (BSHC 1918: 90-91). This portion of concrete bulkhead wharf was built under the same contract as repairs and additions to Pier 11, which was renumbered at that time from Pier 13. Pier 11 was a wood structure built at an unknown time. "The concrete bulkhead wharf is 44 feet wide and 363 feet deep and similar to the one at Pier 29" (BSHC 1916: 37). It was also similar in design to Pier 39. Pier 29 was built from 18 November 1915 to 29 November 1916 (BSHC 1919: 88-89) and Pier 39 was built from 20 February 1913 to 2 July 1914 (BSHC 1916: 83). The designer of this portion of the bulkhead wharf is unknown.

The history of this part of the bulkhead wharf is associated with Pier 11. Located at the south end of Section 5 of the bulkhead wharf, Pier 11 was demolished prior to the construction of Pier 9, at the north end of Section 4 of the bulkhead wharf, in 1936-1938.

The fourth part of Section 5 of the bulkhead wharf was built under a contract dated 20 October 1921 and completed 18 July 1922. It was built by Tibbitts Pacific Company for $73,961.73. This contract included "Furnishing materials and constructing a bulkhead wharf in front of Pier 19 and a concrete bulkhead wharf extending from the existing section in front of Pier 25 to the existing section in front of Pier 21" (BSHC 1924: 40). Although built under one contract, the Board of State Harbor Commissioners described them as "Two sections of bulkhead wharf . . ., one across the end of Pier 19 and the other extending from the south side of Pier 21 to the north side of Pier 25" (BSHC 1923: 31). The designer of this section of the bulkhead wharf is unknown.

Thus, under one contract, separate parts of the bulkhead wharf were built, one at Pier 19 which overlapped Sections 4 and 5 and whose south edge is in Section 5, and the other from Pier 21 to Pier 25 in Section 4. According to the Board of State Harbor Commissioners, "The construction of these two sections marks the completion of the permanent concrete bulkhead wharf and wall from the north side of Pier 44 to the west side of Pier 41, a distance of 2.6 miles." (BSHC 1923:31).

At the time this section of the bulkhead wharf was built, Pier 19 was a wood structure in Section 5. The old wood Pier 19 was demolished prior to 1936-1938 when a new, concrete Pier 19 was built. The exact relationship of the locations of the two Pier 19s is unclear. The old wood Pier 19 was at the north end of Section 5 of the bulkhead wharf. The new concrete Pier 19 was a much larger structure that is mostly at the south end of Section 4 of the bulkhead wharf. Because of its size, it appears to overlap the edge of Section 5 as well.

The history of this part of Section 5 of the bulkhead wharf is associated with the history of both Pier 19s and the operation of the Belt Railroad.

Section 6

See also Pier 9 (Contributing Resource), Pier 7 (Waterfront Restaurant) (Non-Contributing Resource), and Pier 5 (Contributing Resource).

Description

Summary

Section 6 of the bulkhead wharf was built of reinforced concrete in three parts. The first part, measuring 363 by 44 feet, was built in association with Pier 7 in 1915-1916. The second part, measuring 233 by 44 feet, was built where Pier 9 was later constructed, in 1917. The third part, measuring 311 by 45 feet, was built at Pier 5 in 1920, straddling the line between Section 6 and Section 7. Bulkhead buildings were built on each of these parts of the bulkhead wharf. In addition, a connecting wharf between piers 5 and 7 was built in 1921-1922. The Pier 5 and Pier 9 bulkhead buildings remain. Only a portion of the Pier 7 bulkhead building remains, following a fire in 1973.

The principal alterations to Section 6 of the bulkhead wharf since the end of the period of significance are the removal of the Belt Railroad tracks, repaving the asphalt surfaces, and establishment of a park on the surface between Pier 5 and Pier 7 (Waterfront Restaurant). A new structure called Pier 7 was built for fishing and pedestrian access to the waterfront in the 1990s — this is outside the district boundaries. In addition, portions of the old Pier 7 bulkhead building were removed after a fire in 1973.

The substructure of Section 6 appears little altered since the period of significance.

Description

Section 6 of the bulkhead wharf was built in three parts from south of the foot of Pacific Avenue to the foot of Vallejo Street. It is built on section 6 of the seawall which is 800 feet long.

The first part of this portion of the bulkhead wharf was built in association with Pier 7 in 1915-1916. This is a reinforced concrete structure measuring 363 feet along the waterfront and 44 feet from the top of the seawall to the water front line. A reinforced concrete deck spans this distance on alignments of five concrete piles. The deck rests on a new concrete retaining wall built on the

old rock seawall. While Pier 7 and its transit shed have been destroyed, a portion of the remodeled bulkhead building still stands on the bulkhead wharf.

The second part of this portion of the bulkhead wharf was built in 1917, measuring 233 feet along the water front line and 44 feet from the top of the seawall to the water front line. "It is the typical reinforced concrete bulkhead wharf construction on concrete piles" (BSHC 1919: 38).

Engineering plans show this as consisting of a reinforced concrete deck supported on alignments of four concrete piles outshore of the seawall. The deck is supported on a grid of beams with additional beams perpendicular to the seawall in many cells of the grid near the seawall and near the water front line. There are also additional supports in a curving alignment for a spur of the Belt Railroad. The Pier 9 bulkhead building sits on this portion of the bulkhead wharf.

The third part of the bulkhead wharf was built in 1920 at Pier 5 — this part overlaps the line between Section 6 and Section 7 of the bulkhead wharf. This is a "typical reinforced concrete pile structure" measuring 311 feet along the waterfront and 45 feet from the top of the seawall to the water front line. In addition, along the north end of this structure, there is "a creosoted pile addition" (BSHC 1921: 36-37) — a connecting wharf — measuring 15 or 16 feet wide and 154 feet long. The concrete deck rests on alignments of four concrete piles outshore of the seawall. The deck is framed in a continuous grid of reinforced concrete beams except for extra supports in a curving alignment for a spur of the Belt Railroad. The original asphalt paving of the deck has been replaced. This part of the bulkhead wharf supports the Pier 5 bulkhead building.

There are mooring bitts along the edge of the bulkhead wharf between Pier 7 (Waterfront Restaurant) and Pier 9.

The principal alterations to Section 6 of the bulkhead wharf since the end of the period of significance are the removal of the Belt Railroad tracks, repaving the asphalt surfaces, and establishment of a park on the surface between Pier 5 and Pier 7 (Waterfront Restaurant). A new structure called Pier 7 was built for fishing and pedestrian access to the waterfront in the 1990s — this is outside the district boundaries. In addition, portions of the old Pier 7 bulkhead building were removed after a fire in 1973.

The substructure of Section 6 appears little altered since the period of significance.

Construction History

Section 6 of the bulkhead wharf was built on Section 6 of the seawall, an 800-foot long structure built in 1885-1886. Section 6 of the bulkhead wharf was built in three parts associated with Piers 5, 7, and 9.

The first part of the Section 6 bulkhead wharf was built adjacent to a 1902 pier called Pier 9. The name of old Pier 9 was changed to Pier 7 at the time the bulkhead wharf was built. Pier 7 was largely destroyed by fire in 1973, leaving only its bulkhead building sitting on the bulkhead wharf. Subsequently, a narrow modern recreational pier north of Pier 5 was named Pier 7.

According to the Board of State Harbor Commissioners, referring to "Pier 7 (old number 9)": "In connection with the repairs to this pier, a new bulkhead wharf building . . . was constructed . . . A reinforced concrete bulkhead wharf . . . was built under the same contract as the bulkhead wharf building; this wharf is of the same type as the one at Pier 29." (BSHC 1916: 37) It was therefore also similar to Piers 2, 19, 39, and 41.

The bulkhead wharf associated with Pier 7, the bulkhead building, and repairs to Pier 7 were all built under the same contract dated 18 November 1915 and completed 24 August 1916. The work was done by Healy-Tibbitts Construction Company for $83,305.58. (BSHC 1919: 88)

The second part of Section 6 of the bulkhead wharf was built under a contract dated 2 March 1917. It was completed 15 November 1917 by the Clinton Construction Company at a cost of $15,657.62. According to the Board of State Harbor Commissioners at the time it was built, this section of the bulkhead wharf "connects the sections previously built adjacent to piers 7 and 11, and completes the permanent bulkhead wharf from the south side of Pier 7 to the south side of Pier 19." (BSHC 1919: 38, 98). The plans were labeled "Plans for bulkhead wharf at Pier No. 9" — the previous Pier 9. Plans were prepared by A.C. Griewank under the supervision of Frank G. White, Chief Engineer, approved 18 January 1917. In 1936-1938, a new reinforced concrete Pier 9 was built along this section of the bulkhead wharf together with a new transit shed and a bulkhead building.

The third part of the Section 6 bulkhead wharf was built "in front of Pier No. 5, connecting existing bulkhead wharves at Piers 3 and 5" in a contract dated 8 January 1920. The work was completed 2 December 1920 by Healy-Tibbitts Construction Company at a cost of $44,584.93. (BSHC 1923: 76) The bulkhead wharf was designed by A.W. Nordwell under the supervision of Frank G. White, Chief Engineer, on drawings dated 11 September 1919. According to the Board of State Harbor Commissioners at the time of construction, with the completion of this section of the bulkhead wharf, "the permanent bulkhead wharf will then be contiguous from Pier 42 to Pier 19." (BSHC 1921: 36).

In addition, the north end of this part of the bulkhead wharf was widened: "In conjunction with this wharf, a creosoted pile addition is being built in the slip between Piers 5 and 7. This addition will widen the wharf 16 feet and will permit of the construction of a bulkhead shed 49 feet in width. The slip is 174 feet in width, and this berth will furnish accommodations for one or more of the smaller bay and river lines." (BSHC 1921: 37). A drawing for a "connecting wharf between Piers 5 & 7" was "supplementary to plans for bulkhead wharf Pier 5," perhaps under an amended contract. This drawing was prepared 29 April 1920. It was signed by A.W. Nordwell, Oliver W. Jones, and H.B. Fisher. It was for a wood structure 15 feet wide and 154 feet long. It was designed with alignments of two wood piles supporting a deck that is cantilevered at the outshore edge which was protected by fender piles.

Pier 5 itself was a wood structure built in 1895. Following completion of the bulkhead wharf and its wood extension, the Pier 5 bulkhead building was built in 1921-1922. This building stretched 313 feet along the Embarcadero: "the southerly portion including the pier front is 164 feet in length by 33 feet in width, and the northerly portion is 149 feet in length by 49 feet in width" (BSHC 1923: 26). Pier 5 was demolished between 1990 and 1992, but the bulkhead wharf and bulkhead building remain.

The history of Section 6 of the bulkhead wharf is associated with the histories of Piers 5, 7, and 9 and with the operation of the Belt Railroad.

Section 7

See also Section 8a of the bulkhead wharf (Contributing Resource), Pier 5 (Contributing Resource), Pier 3 (including Pier 1½) (Contributing Resource), and Pier 1 (Contributing Resource).

Description

Summary

Section 7 of the bulkhead wharf is in six parts, stretching over 980 feet along the Embarcadero from the north end of the Ferry Building, identified from south to north. The first part was built in 1894-1895 as part of the foundation of the Ferry Building. The second part, designed in April 1909 lies underneath a portion of the third part, which was built for Pier 1 in 1929-1930 and extends northward. The fourth part was built for Pier 3 in 1917-1918. The fifth part was built for Pier 5 in 1920 overlapping the line between Section 6 and Section 7. Sixth, the Pier 1 bulkhead wharf replaced portions of the 1909 bulkhead wharf in 1929, or was constructed over it.

The designs of the second, third, and fourth parts are similar to each other and to earlier segments of the post 1909 bulkhead wharf, mixing concrete encased wood piles with steel I-beams that support reinforced concrete slabs. The fifth part utilizes pre-cast concrete piles and reinforced concrete slabs. Section 7 of the bulkhead wharf appears little altered except for replacement of the asphalt paving and removal of the Belt Railroad tracks.

Description

Following construction of Section 7 of the seawall in 1887-1889 (BSHC 1907: 58), Section 7 of the bulkhead wharf was built in six parts, described below from south to north. The first part, built in association with the Ferry Building, is described with Sections 8a and 8b of the bulkhead wharf.

The second part of the Section 7 bulkhead wharf, built in two phases in 1909 for Pier 1, stretches 274 feet north from the Ferry Building and then another 679 feet north of that. This is the most complicated section, because the third part, a 1930 structure is “constructed over” it. It is not

clear how much of the 1909 structure survives. The 1909 structure was built with an average distance of over twenty-six feet from the seawall to the water front line. This was accomplished in two spans of steel I-beams — almost fourteen feet from the seawall to a central line of piles and a second span to piles at the water front line. By 1924, this part of the bulkhead wharf was developed as an automobile ferry terminal with a large flat roofed shed extending from the north end of the Ferry Building. Automobiles drove through this shed to ferry slips A and 1 (Olmsted 1998: 104, 106, 133). This structure was removed by 1949 (Sanborn Map Company 1949), probably because of the changing transportation patterns associated with the Bay Bridge.

On top of this, the third part extends beyond it to the north. This 1930 structure also reaches from the seawall to the water front line in two spans. The distances of these spans are less than those of the 1909 structure. The outshore line of piles is inset from the water front line so the deck is cantilevered to the water front line. Except for rail spur supports, the details of the construction of this part of the bulkhead wharf are unknown. The Pier 1 bulkhead wharf is part of Pier 1. It supports the Pier 1 bulkhead building.

Fourth, the Pier 3 bulkhead wharf, built in 1917-1918, is 423 feet long. Although details of this structure are not clear, a section drawing shows that it reaches forty-four feet eight inches from the seawall to the water front line in four spans. The Pier 3 bulkhead wharf is part of Pier 3. It supports the Pier 3 bulkhead building.

Fifth, the Pier 5 bulkhead wharf, built in 1920, is 311 feet long and about 45 feet wide from the seawall to the water front line. The wharf spans the distance in four equal spans. The piles and deck are of reinforced concrete construction. The central area of this part of the bulkhead wharf was designed to connect with Pier 5. Except for supports in a diagonal path for a rail spur, there is no structural difference between the portion adjacent to the pier and those portions between piers. The outshore edges of the wharf between piers are fitted with car springs and wood pile fenders. The Pier 5 bulkhead wharf supports the Pier 5 bulkhead building.

Sixth, the Pier 1 bulkhead wharf replaced portions of the 1909 bulkhead wharf or was “constructed over” it. This is a reinforced concrete structure measuring 210 feet long and about 40 feet wide.

Changes to the Section 7 bulkhead wharf since the period of significance are replacement of the original asphalt surface, removal of the Belt Railroad tracks, and construction of a connecting wharf known as Pier 1/2 between the bulkhead wharf and the south apron of Pier 1 in 2002.

Construction History

The history of Section 7 of the bulkhead wharf is complicated and incomplete because of contradictions and gaps in the records.

Altogether, Section 7 is about 980 feet long north of the Ferry Building; it also includes a short stretch of unknown length under the Ferry Building, itself. The history of the bulkhead wharf under the Ferry Building is discussed with Sections 8a and 8b of the bulkhead wharf.

Drawings dated April 1909 show a new bulkhead wharf stretching 274 feet north of the Ferry Building. Drawings dated May 1909 show another portion of new bulkhead wharf stretching an additional 679 feet north of the first (April) portion. The April and May portions were both reinforced concrete structures, but were different designs. Contracts for these portions are unclear but a contract for asphalt paving on the Section 7 bulkhead wharf that was completed in October 1909 indicates that the structures were completed by that time (BSHC 1910: 85-87).

At the time these portions of bulkhead wharf were built, the April portion was inshore of sheds for Wells Fargo & Company and the Monticello Steamship Company, and several ferry slips behind them. The May portion provided access to Old Pier No. 3 and Old Pier No. 5.

In 1916, drawings were prepared for a new Pier 3 in the vicinity of Old Pier No. 5. This included a new 423-foot-long bulkhead wharf that replaced much of the May 1909 structure. This new bulkhead wharf was built under a contract dated 29 January 1917 and was completed 21 March 1918. It was built by J.D. Hannah for $243,500 (BSHC 1918: 97).

In 1919, drawings were prepared for a new Pier 5 bulkhead wharf stretching 311 feet along the waterfront. These drawings were prepared by A.W. Nordwell under the supervision of Frank G. White. The structure, “in front of Pier No. 5, connecting existing bulkhead wharves at Piers 3 and 5” was built by Healy-Tibbitts Construction Company under a contract dated 8 January 1920. It was completed 2 December 1920 at a cost of $44,584.93 (BSHC 1923: 76)

In 1929, drawings were prepared for a new Pier 1 in the vicinity of Old Pier No. 3. According to hand notes on the April 1909 and May 1909 drawings, the new Pier 1 included a new bulkhead wharf that replaced the remainder of the May 1909 bulkhead wharf and was "constructed over" the April 1909 bulkhead wharf. It is unclear what "constructed over" means — presumably parts or all of the old structure are still underneath. This portion of the bulkhead wharf was built by Healy-Tibbitts Construction Company for $248,126.95 under a contract dated 30 October 1929. It was completed 6 August 1930 (BSHC 1932: 76).

Thus, the Section 7 bulkhead wharf currently consists of six parts. At the south end, a portion of the bulkhead wharf is also the substructure for the Ferry Building. Next, 274 feet of bulkhead wharf designed in April 1909 lies underneath the south end of the 1929-1930 bulkhead wharf built for Pier 1. The Pier 1 bulkhead wharf extends north of the old April 1909 bulkhead wharf. North of the Pier 1 bulkhead wharf, the Pier 3 bulkhead wharf was built in 1916. Finally, the Pier 5 bulkhead wharf was built in 1920.

In 2002, a connecting wharf was built between the bulkhead wharf and the south apron of Pier 1 for pedestrian access to the waterfront (Port of San Francisco 2004). Pier 1, (which includes Pier 1 ½,) and 5 were rehabilited as tax credit projects in 2000 and 2005, respectively. These projects included repair and seismic improvements to the portions of Section 7 of the bulkhead wharf associated with these piers. The Ferry Building was converted from a transit terminal to an office building in the 1950's and rehabilitated as a tax credit project to a market hall and office complex in 2003.

The history of the Section 7 bulkhead wharf is associated in its early years with the chief wharfingers office, which was located inshore of the April 1909 bulkhead wharf itself in 1909, and with the two office buildings built at the foot of Clay Street, along the May 1909 bulkhead wharf, later in 1909. These buildings were built straddling the top of the seawall so that about one fourth of each building rested on the bulkhead wharf and about three-fourths rested inshore on filled land behind the seawall. These were built as office buildings for steamship companies. In 1918, one was moved to the bulkhead wharf between Pier 27 and Pier 29 (see Pier 29 Annex). The other office building and the Chief Wharfinger's Office remained until 1929 when construction began on Pier 1.

The histories of the later parts of Section 7 of the bulkhead wharf are associated with the histories of Piers 1, 3, and 5, with the shipping offices and port functions housed in the bulkhead buildings of those piers, and with the Belt Railroad spurs that crossed the bulkhead wharf to the piers.

Section 8a

See also Section 8b of the bulkhead wharf (Contributing Resource), Section 7 of the bulkhead wharf (Contributing Resource), the Ferry Building (Contributing Resource), and Ferry Slips Section 8 (Lost Feature).

Description

Summary

Section 8a of the bulkhead wharf which also functions as a portion of the foundation of the Ferry Building, is a massive reinforced concrete structure on a forest of 5,000 wood piles. Designed by A. Page Brown, architect, it was built under the supervision of Howard C. Holmes, Chief Engineer, in 1894-1895. It stretches 392 feet along the waterfront and is approximately 140 feet wide.

Section 8a appears little altered since the period of significance and it continues to perform its original function of supporting the Ferry Building. Changes are associated with changing uses of the Ferry Building.

Description

Section 8a of the bulkhead wharf — otherwise known as the foundation of the Ferry Building — is part of a continuous substructure for the Ferry Building that also includes portions of Section 8b and Section 7. The front wall of the Ferry Building appears to rest on the seawall while the projecting central pavilion sits slightly inshore of the seawall (*Engineering News* 1897: 67).

The entire structure was described at the time it was built by Howard C. Holmes, Chief Engineer:

> The foundation of the approaches to ferry slips Nos. 2, 3, 4, 5 and 6, which will also serve as foundation for the new union depot and ferry house, was completed

> Sept. 1, 1895. The same consists of 111 concrete piers of the dimensions of 16 × 28 ft. at the base and of 8½ × 28 ft. at the top, with a depth of 20 ft. below city base, and also portion of the concrete seawall in front of Section 8a and 8b. These are joined together by a series of groined concrete arches (2 ft. thick at the soffit) into one immense area of floor space, 160 ft. in width by 670 ft. in length. This enormous foundation rests on a sub-foundation of grillage supported by over 5,000 piles, each not less than 80 ft. in length; 28,000 cu. yds. of concrete with 36,000 bbls. of cement were required in the construction of the arches and floors. Assuming the weight of concrete to be 4,000 lbs. per cu. yd., the total weight of this structure would be 112,000,000 lbs., or 56,000 net tons. (*Engineering News* 1897: 66)

The structure itself appears to remain intact as it was built. The ferry slips behind it were removed after the period of significance, and replaced by a concrete platform associated with the BART tunnel under the bay. The Ferry Building has undergone two major conversions since the end of the period of significance — most recently (2003) as a market hall and office complex.

Construction History

The history of Section 8a of the bulkhead wharf is associated with the Ferry Building. The Ferry Building itself, which is larger than Section 8a, is built on Section 8a, and portions of Section 8b and Section 7.

The term “bulkhead wharf” does not apply to Section 8a in the usual sense of a wharf that spans the area between the top of the seawall and the toe of the seawall in order that ships might berth at the wharf in deep water. In Section 8a, the platform that is built from the top of the seawall into the bay functions as a foundation for the Ferry Building. This foundation extends 140 feet into the bay — far beyond the toe of the seawall. At the outshore edge of this foundation, wood ferry slips were built.

Thus, Section 8a of the bulkhead wharf is a bulkhead wharf largely in the sense that it forms a link in the continuous platform along the Embarcadero from the seawall into the bay for the purpose of supporting buildings and activities of the port.

It might also be seen as a part of a large wharf that includes both the inshore concrete foundation for the Ferry Building and the outshore wood ferry slips. Howard C. Holmes, Chief Engineer, described it as forming "approaches" to the ferry slips (*Engineering News* 1897: 66) — the presence of the Ferry Building between the seawall and the ferry slips was not an impediment but a permeable part of the approach to the ferries.

Part bulkhead wharf, part substructure for the Ferry Building, and part approach to the ferry slips, Section 8a was designed by the architect of the Ferry Building, A. Page Brown, in 1893-1894. Its design was modified and it was built under the supervision of Howard C. Holmes in 1894 and 1895. It was built by J.D. Spreckels for $96,424. (Olmsted 1998: 17, 19). The total cost was $247,887 (*Engineering News* 1897: 66).

According to *Engineering News*, "This piece of concrete, pile, and grillage work is undoubtedly one of the largest, if not the largest, of its kind in the world" (*Engineering News* 1897: 66).

The structure was also notable for the organization of its construction:

> In the course of its construction, some 30,000,000 people passed to and fro over the scene; on an average 150 men were employed continuously for over two years; there was not an accident of any kind whatsoever; and ferry boats made half-hourly trips from the locality and were not delayed one minute and did not lose a single trip during the whole time. (*Engineering News* 1897: 66).

During the course of construction, "after questions were raised regarding the strength of this foundation and its honesty of construction," its concrete was subjected to tests under the supervision of Professor Soule at the University of California and Professor Marx of Stanford which demonstrated that it was built substantially stronger than its anticipated loads.

Following completion of the substructure on 1 September 1895, the Ferry Building was under construction from 1896 to 1903. The ferry slips were completed and ferries were in operation behind Section 8a by 13 July 1898. Ferry slips 3 and 4 and part of ferry slip 2 were located outshore of Section 8a.

The relationship between Section 8a of the bulkhead wharf and Section 8a of the seawall is unclear. Section 8a of the seawall, 392 feet long, was built in 1891-1893 (BSHC 1907: 53). A 1912 drawing prepared by the Board of State Harbor Commissioners divides the seawall in the vicinity of the Ferry Building into sections A, B, C, and D. Section 8a lies entirely within Section C.

The severest test of the strength of the structure was the 1906 earthquake which left the Ferry Building "shaken but scarcely damaged" — due in large part to the foundation. "A committee of engineers inspected the building and found it structurally sound, vindicating the pioneering construction methods used." (Myers 1977: 6).

The history of Section 8a is associated with the history of the Ferry Building and with the operation of ferries on San Francisco Bay. Ferry service declined with completion of the Bay Bridge in 1936. Three ferry slips (6, 7, and 8) were removed by 1949. Most of the rest of the ferry slips, including those behind Section 8a were removed by 1975. Much of this was required by construction of the BART trans-bay tube and the subsequent construction of a concrete deck and restaurant. The Ferry Building was converted from a transit terminal to an office building in the 1950s and rehabilitated as a tax credit project to accommodate a market hall and office complex in 2003.

Section 8b

See also Section 8a of the bulkhead wharf (Contributing Resource), Section 7 of the bulkhead wharf (Contributing Resource), the Ferry Building (Contributing Resource), the Agriculture Building (Contributing Resource), and Ferry Slips Section 8 (Lost Feature).

Description

Summary

Section 8b of the bulkhead wharf is in three parts built, from south to north, in association with the Post Office (now Agriculture Building), the ferry building extension, and the Ferry Building. In each case Section 8b extends further into the bay than most bulkhead wharves. The southern and central parts of Section 8b are reinforced concrete structures built in 1915 whose details are

unknown. The northern part of Section 8b is a massive reinforced concrete structure on a forest of 5000 wood piles. The Ferry Building and Section 8b of the bulkhead wharf which supports the Ferry building and connects it to the Embarcadero were designed by A. Page Brown, architect, and built under the supervision of Howard C. Holmes, Chief Engineer, in 1894-1895. The Ferry Building was converted from a transit terminal to an office building in the 1950's and rehabilitated as a tax credit project to accommodate a market hall and office complex in 2003.

The north and south parts of Section 8b of the bulkhead wharf appear to be unaltered. The middle part has been partly demolished — that part beyond the water front line was removed in the 1960s and the Ferry Building extension for which the substructure was originally built was demolished at the same time. This was required by construction of the BART trans-bay tube and subsequent construction of a concrete deck and restaurant.

Description

Section 8b of the bulkhead wharf, stretching 350 feet along the waterfront is in three parts built from south to north in association with the Post Office (now Agriculture Building), the Ferry Building Extension, and the Ferry Building.

At the south end, Section 8b forms a small part of the substructure for the Agriculture Building, most of which sits on Section 8. The substructure for the Agriculture Building, built in 1915, appears to be a reinforced concrete structure. The details of the construction of this substructure are unknown. The Agriculture Building still stands on this portion of Section 8b of the bulkhead wharf.

In the middle, Section 8b appears to be a reinforced concrete portion of a larger structure built in 1915 and partly demolished in the 1960s, along with the Ferry Building extension on top of it. That portion of the structure that functions as a bulkhead wharf, extending from the top of the seawall to the toe of the seawall, appears to survive. Its original asphalt surface has been repaved.

At the north end, Section 8b of the bulkhead wharf — otherwise known as the foundation of the Ferry Building — is part of a continuous substructure for the Ferry Building that also includes

portions of Section 8a and Section 7. The front wall of the Ferry Building appears to rest on the seawall while the projecting central pavilion sits slightly inshore of the seawall (*Engineering News* 1897: 67).

The entire structure was described at the time it was built by Howard C. Holmes, Chief Engineer:

> The foundation of the approaches to ferry slips Nos. 2, 3, 4, 5 and 6, which will also serve as foundation for the new union depot and ferry house, was completed Sept. 1, 1895. The same consists of 111 concrete piers of the dimensions of 16 × 28 ft. at the base and of 8½ × 28 ft. at the top, with a depth of 20 ft. below city base, and also portion of the concrete seawall in front of Section 8a and 8b. These are joined together by a series of groined concrete arches (2 ft. thick at the soffit) into one immense area of floor space, 160 ft. in width by 670 ft. in length. This enormous foundation rests on a sub-foundation of grillage supported by over 5,000 piles, each not less than 80 ft. in length; 28,000 cu. yds. of concrete with 36,000 bbls. of cement were required in the construction of the arches and floors. Assuming the weight of concrete to be 4,000 lbs. per cu. yd., the total weight of this structure would be 112,000,000 lbs., or 56,000 net tons. (*Engineering News* 1897: 66)

The three parts of Section 8b have been altered by the loss of the ferry slips and associated structures behind Section 8b (all removed after the period of significance) and by the partial demolition of the middle section to accommodate BART.

Construction History

Section 8b of the bulkhead wharf stretches 450 feet along the waterfront from the north edge of the Agriculture Building to a point just south of the Ferry Building tower. It was built on Section 8b of the seawall which was built in 1888-1890 (BSHC 1907: 53). Its history is in three parts associated with the Agriculture Building, ferry slips 5, 6, and 7, and the Ferry Building. Because the Agriculture Building was built largely on Section 8 of the bulkhead wharf and the Ferry Building was built partly on Section 8a of the bulkhead wharf, the history of Section 8b of the bulkhead wharf is associated with the history of the adjoining sections of the bulkhead wharf.

The southern end of Section 8b of the bulkhead wharf was built in association with the new Post Office (now the Agriculture Building) in 1915. A contract for the construction of the new Post Office was signed 22 October 1914. The Post Office was completed 6 May 1915 by Healy-Tibbitts Construction Company at a cost of $31,981.50 (BSHC 1916: 99). According to a previous Biennial Report of the Board of State Harbor Commissioners, the structure was to be "carried by concrete piles and a concrete deck paved with asphalt" (BSHC 1914: 54). Lacking any other evidence and comparing this information with the appearance of Section 8, the Post Office, and the ferry slips on subsequent maps in the biennial reports, it appears that the Post Office was built largely on Section 8 and slightly on Section 8b of the bulkhead wharf. Because the post office has a reinforced concrete foundation, the south end of the Section 8b bulkhead wharf may have been rebuilt in reinforced concrete in 1915.

The middle portion of Section 8b of the bulkhead wharf was a single structure that extended from the seawall beyond the water front line. In that way it was both a bulkhead wharf and a wider wharf that served other purposes as well. It was built for a specific bulkhead building — the Ferry Building extension. "A foundation for the extension of the Ferry Building" — a bulkhead wharf — was built together with ferry slip no. 7 and reconstruction of ferry slip no. 6 under a contract dated 20 August 1914 by the San Francisco Bridge Company. It was completed 28 January 1915 at a cost of $58,440.44. (BSHC 1916: 97) The Ferry Building extension itself was built under a contract dated 19 November 1914 by the Construction and Engineering Company. It was completed 26 February 1915 at a cost of $49,618.55. (BSHC 1916: 101).

Following completion of the foundation (bulkhead wharf) and the building (bulkhead building) of the Ferry Building extension, additions were made at the rear to facilitate loading and unloading of ferry passengers. These were described as "four side aprons for upper deck landings of passenger ferry slips Nos. 6, 7, and 8," built under a contract dated 24 June 1915 by Healy-Tibbitts Construction Company. The work was completed 2 December 1915 at a cost of $13,317.25. (BSHC 1916: 104).

The Ferry Building extension appears to have been conceived to facilitate additional traffic generated by the P-P.I.E. After the close of the exposition, the Board of State Harbor Commissioners wrote, "The Ferry Building extension which contains baggage rooms used by the

Southern Pacific and the Western Pacific was very useful during the Exposition period in taking care of visitors." (BSHC 1916: 41).

A photograph of the Ferry Building extension taken within the biennium in which it was completed shows a one-story structure with a flat roof, a facade along the Embarcadero marked by nine arched openings, a covered loading area at the south end supported by steel lattice-truss columns and beams, and a two-story arch windowed passenger corridor at the rear. The passenger corridor was an extension of a corridor across the back wall of the Ferry Building which was connected to loading structures on the dolphins between the ferry slips (BSHC 1916: 26). The passenger corridor appears to have been built on a foundation associated with the ferry slips rather than on the bulkhead wharf. The buildings were all wood structures with walls of lath and plaster (Sanborn Map Company 1949).

The ferry building extension was still intact in 1959 (Olmsted 1998: 168). It was probably torn down in the 1960s when the BART tube was built. The foundation for the Ferry Building extension was also partly demolished at that time. A 1975 photograph suggests that the portion of the foundation that extended to the water front line — that portion of the foundation that covered an area typically covered by a bulkhead wharf — survived while the outshore portion was demolished (Cameron 1975: 62). Subsequently, the demolished portion was rebuilt, obscuring the view of remaining portions of the original structure.

The north portion of the bulkhead wharf for Section 8b was built in association with the Ferry Building. The Ferry Building itself is built on Section 8a, and portions of Section 8b and Section 7.

The term "bulkhead wharf" does not apply to Section 8b in the usual sense of a wharf that spans the area between the top of the seawall and the toe of the seawall in order that ships might berth at the wharf in deep water. In Section 8b, the platform that is built from the top of the seawall into the bay functions as a foundation for the Ferry Building. This foundation extends 140 feet into the bay — far beyond the toe of the seawall. At the outshore edge of this foundation, wood ferry slips were built.

Thus, Section 8b of the bulkhead wharf is a bulkhead wharf largely in the sense that it forms a link in the continuous platform along the Embarcadero from the seawall into the bay for the purpose of supporting buildings and activities of the port.

It might also be seen as a part of a large wharf that includes both the inshore concrete foundation for the Ferry Building and the outshore wood ferry slips. Howard C. Holmes, Chief Engineer, described it as forming "approaches" to the ferry slips (*Engineering News* 1897: 66) — the presence of the Ferry Building between the seawall and the ferry slips was not an impediment but a permeable part of the approach to the ferries.

Part bulkhead wharf, part substructure for the Ferry Building, and part approach to the ferry slips, Section 8b was designed by the architect of the Ferry Building, A. Page Brown, in 1893-1894. Its design was modified and it was built under the supervision of Howard C. Holmes in 1894 and 1895. It was built by J.D. Spreckels for $96,424. (Olmsted 1998: 17, 19). The total cost was $247,887 (*Engineering News* 1897: 66).

According to *Engineering News*, "This piece of concrete, pile, and grillage work is undoubtedly one of the largest, if not the largest, of its kind in the world" (*Engineering News* 1897: 66).

The structure was also notable for the organization of its construction:

> In the course of its construction, some 30,000,000 people passed to and fro over the scene; on an average 150 men were employed continuously for over two years; there was not an accident of any kind whatsoever; and ferry boats made half-hourly trips from the locality and were not delayed one minute and did not lose a single trip during the whole time. (*Engineering News* 1897: 66).

During the course of construction, "after questions were raised regarding the strength of this foundation and its honesty of construction," its concrete was subjected to tests under the supervision of Professor Soule at the University of California and Professor Marx of Stanford which demonstrated that it was built substantially stronger than its anticipated loads.

Following completion of the substructure on 1 September 1895, the Ferry Building was under construction from 1896 to 1903. The ferry slips were completed and ferries were in operation behind Section 8b by 13 July 1898. Ferry slips 5 and 6 were located outshore of Section 8b.

The relationship between Section 8b of the bulkhead wharf and Section 8b of the seawall is unclear. Section 8b of the seawall, 450 feet long, was built in 1891-1893 (BSHC 1907: 53). A 1912 drawing prepared by the Board of State Harbor Commissioners divides the seawall in the vicinity of the Ferry Building into sections A, B, C, and D. Section 8b lies in Section A, Section B, and part of Section C.

The severest test of the strength of the structure was the 1906 earthquake which left the Ferry Building "shaken but scarcely damaged" — due in large part to the foundation. "A committee of engineers inspected the building and found it structurally sound, vindicating the pioneering construction methods used." (Myers 1977: 6).

The history of Section 8b is associated with the history of the Ferry Building and with the operation of ferries on San Francisco Bay. Ferry service declined with completion of the Bay Bridge in 1936. Three ferry slips (6, 7, and 8) were removed by 1949. Most of the rest of the ferry slips, including those behind Section 8b were removed by 1975. Much of this was required by construction of the BART trans-bay tube and the subsequent construction of a concrete deck and restaurant. The Ferry Building was converted from a transit terminal to an office building in the 1950s and rehabilitated as a tax credit project to a market hall and office complex in 2003.

The history of the middle portion of Section 8b is also associated with the history of the Ferry Building and the operation of ferry boats on San Francisco Bay.

The history of the south end of Section 8b is associated with the history of the Post Office including its conversion for use by the Agriculture Department in 1925.

Section 8

See also Agriculture Building (Contributing Resource), Ferry Slips Section 8 (Lost Feature), and Railway Express Company Section 8 (Lost Feature).

Description

Summary and Description

Section 8 of the bulkhead wharf, located south of the Ferry Building, appears to be a reinforced concrete structure built in association with the Post Office (now Agriculture Building) in 1915. It is a four-sided structure measuring roughly 280 feet along the Embarcadero, 90 feet wide at its south end, and 125 feet wide at its north end. The Agriculture Building still stands, approximately, on the north half of the bulkhead wharf. The details of the construction of Section 8 of the bulkhead wharf are unknown.

Principle changes to the Section 8 bulkhead wharf since the period of significance are the demolition of the Railway Express Company buildings south of the Agriculture Building and the demolition of ferry slips and dolphin sheds outshore of the bulkhead wharf. In addition, the original asphalt surfaces have been replaced. From what is known, the structure of Section 8 appears little altered.

Construction History

The history of Section 8 of the bulkhead wharf is unclear due to a lack of available records. Section 8 is located between the foot of Mission Street on the north to a point almost half way to the foot of Howard Street on the south.

According to the 1912-1914 Biennial Report of the Board of State Harbor Commissioners, “A creosoted pile bulkhead wharf 290 feet long with an average width of 110 feet was built in front of Section 8 of the seawall and was completed January 2, 1913. This was designed for temporary use during the construction of the seawall south of Mission Street.” (BSHC 1914: 48) In fact, a contract dated two days after the wood bulkhead wharf was completed — 4 January 1913 — was signed for construction of seawall section 9A, from Mission Street south. Section 9A was completed 27 November 1914. (BSHC 1916: 82)

Before the Section 8 wood bulkhead wharf was built, the Board of State Harbor Commissioners reported on the need for new ferry slips behind the Ferry Building and sections 8, 8a, and 8b of the bulkhead wharf: "The transbay passenger traffic has increased so enormously during the past six years that the present seven ferry slips at the foot of Market Street are inadequate to meet the demands put upon them. Consequently, five new slips have been planned, three to the south, and two to the north of the present system." (BSHC 1913: 21). The first of these, ferry slip no. 8, outshore from the Section 8 bulkhead wharf, was begun 12 March 1914 and was completed 2 July 1914 (BSHC 1916: 86-87). This was followed by ferry slips no. 9 and no. 10, also outshore from Section 8. They were begun 9 July 1914 and completed 28 January 1915 (BSHC 1916: 96). A plan published of slips 7, 8, 9, and 10 shows them outshore of the wood Section 8 bulkhead wharf (BSHC 1914: 44). The wharf was a four-sided structure in plan, roughly 280 feet along the Embarcadero, 90 feet wide at the south end and 125 feet wide at the north end.

While the ferry slips were under construction, on 22 October 1914, a contract was signed for construction of the foundation for the new Post Office (now Agriculture Building). This was completed 6 May 1915 by Healy-Tibbitts Construction Company at a cost of $31,981.50 (BSHC 1916: 99). According to a previous Biennial Report of the Board of State Harbor Commissioners, the structure was to be "carried by concrete piles and a concrete deck paved with asphalt" (BSHC 1914: 54). Lacking any other evidence and comparing this information with the appearance of Section 8, the Post Office, and the ferry slips on subsequent maps in the biennial reports, it appears that the Post Office was built largely on the north half of Section 8 and slightly on the south edge of Section 8b of the bulkhead wharf. Because the post office has a reinforced concrete foundation, the Section 8 bulkhead wharf may have been rebuilt in reinforced concrete in 1915.

By 1924, the south half of Section 8 of the bulkhead wharf was developed as an automobile ferry terminal. Near the Embarcadero at the center of the area between the Post Office and Pier 14, there was a small gable-roofed building. On either side was an open paved area for automobiles, "eight motorcar driveways, four for slip 9, and four for slip 10" leading to a long shed across the head of the slips. (Olmsted 1998: 108, 133) By 1949, this automobile ferry terminal was

replaced by a large one-story wood warehouse for the Railway Express Agency (Sanborn Map Company 1949).

Because of "very unstable subsoil" and continued settling of the seawall, substantial foundation work was necessary under the Post Office building in 1925: "In order that the results might be as effective as possible it was necessary to drive additional foundation piles and build reinforced concrete footings to jack against and to assist in carrying the weight of the building after the raising was completed. Considerable reconstruction was necessary in the building itself in connection with the raising in the way of repairs to cracked walls and ceilings and to overstressed structural steel connections" (BSHC 1926: 57) This work was begun 17 September 1925 and completed 18 November 1925 at a cost of $19,219.76. The contractor was M.B. McGowan (BSHC 1926: 46).

The history of the Section 8 bulkhead wharf is associated with the history of ferry traffic at the Ferry Building and the history of the Post Office including its conversion to the Agriculture Building in 1925.

Over the years, the dolphins between the ferry slips were covered in sheds. By 1924, a shed on the dolphin between slips 9 and 10 was occupied by the Railway Express Company while car ferries loaded in Slip 9 and Slip 10. With the decline in ferry traffic after opening of the Bay Bridge in 1936, ferry slips were less used and the Railway Express Company extended forward across the bulkhead wharf with an office building. By 1949, Sanborn maps show slips 7 and 8 removed and slips 9 and 10 still in place. These remained until at least 1958. By 1975, slips 9 and 10 remained without any buildings except the Agriculture Building left — the Railway Express Company structure has been demolished. Slips 9 and 10 have since been removed.

Section 9

See also Pier 24 Annex (Contributing Resource), Pier 26 (Contributing Resource), Pier 26 Annex (Contributing Resource), Pier 28 (Contributing Resource), and Pier 28½ Restaurant (Contributing Resource).

Description

Summary

Section 9 of the bulkhead wharf, stretching 999 feet along the Embarcadero in three straight legs that form a wide "U," was built in 1909-1910. It is of reinforced concrete construction whose details are not clearly known. It appears to follow the example of other bulkhead wharf sections whose design varies according to location and purpose, with heavier structures designed to meet piers, and lighter structures with cantilevered outshore ends between the piers. Built to accommodate Piers 26 and 28, Pier 24 Annex and Pier 26 Annex were later built on connecting wharves. None of these structures was built on the bulkhead wharf. By 1935, the first part of the Pier 28½ Restaurant was built on the bulkhead wharf south of Pier 28. Section 9 of the bulkhead wharf appears little altered except for replacement of the asphalt paving with concrete and removal of the Belt Railroad tracks.

Description

Section 9 of the bulkhead wharf stretches 999 feet along the Embarcadero in three legs in the form of a wide "U." The southernmost leg, beginning south of the intersection of Bryant and Spear streets, is 210 feet long. This leg forms an obtuse angle with the central leg, 539 feet long. The central leg forms an obtuse angle with the northernmost leg, 250 feet long, which terminates at the foot of Harrison Street. The entire structure was built in 1909-1910.

This is a reinforced concrete structure whose details are little known due to a lack of documentation. Extrapolating from a superceded plan for the wharf (designed to accommodate three piers, it was reconfigured for two piers), and from section drawings of Pier 26 and Pier 28, the design appears to follow the example of other early bulkhead wharves which were built as one structure with two types of construction according to location and original purpose. For those sections of the bulkhead wharf that adjoin the piers, the bulkhead wharf appears to consist of a single twenty-seven foot span from the seawall to a row of heavy piles at the water front line. These areas are crossed by reinforced paths for rail spurs.

For those sections of the bulkhead wharf between the piers, the bulkhead wharf appears to consist of a span from the seawall that cantilevers beyond an inset row of piles. the outshore edge of the cantilevered deck is outfitted with wood fender piles.

Between Pier 32 and Pier 28 there are mooring bitts along the edge of the bulkhead wharf at the water front line. The only known changes to Section 9 of the bulkhead wharf since the period of significance appear to be replacement of the original asphalt paving with concrete and removal of the Belt Railroad tracks.

Construction History

Section 9 of the bulkhead wharf was built as part of the construction of Section 9 of the seawall. The seawall and bulkhead wharf were built by the Associated Contracting Company for $257,213.99. The contract for the work was dated 17 June 1909; the work was completed 13 October 1910. (BSHC 1913: 90)

Section 9 stretches from the foot of Harrison Street on the north to a point south of the intersection of Spear Street and Bryant Street on the south. It can also be described as stretching from the south side of Pier 24 on the north to the north side of Pier 30 on the south. After an initial design to accommodate Piers 24, 26, and 28, according to a drawing dated 15 April 1909, it was changed to accommodate only Piers 26 and 28. The initial design was made by H.J. Brunnier under the supervision of Ralph Barker, Assistant State Engineer.

Two years after it was completed, Pier 26 and Pier 28 were built (in 1912-1913) projecting from the Section 9 bulkhead wharf. The piers were built without bulkhead buildings and do not sit on the bulkhead wharf. In 1928, Pier 26 Annex was built on a new connecting wharf between Pier 26 and 28, located alongside and outshore of the Section 9 bulkhead wharf. Similarly, in 1935 Pier 24 Annex was built on a new connecting wharf between Pier 24 and Pier 26, located alongside and outshore of the Section 9 bulkhead wharf.

None of these buildings were built on the Section 9 bulkhead wharf. However, the history of the wharf is associated with the histories of Pier 24 Annex, Pier 26, Pier 26 Annex, and Pier 28. All four of these buildings are still standing.

In addition, by 1935, the first part of the Pier 28½ Restaurant was built on a connecting wharf just outshore of Section 9 of the bulkhead wharf south of Pier 28. This building was enlarged to its current size by 1949. It is still standing.

Section 10

See also Pier 30-32 Section 8 (Lost Feature) and Red's Java House Section 8 (Lost Feature and Pier 30-32 Section 8 (Lost Feature).

Description

Summary

Section 10 of the bulkhead wharf, stretching 537 feet along the Embarcadero, was built in 1910-1911. It is of reinforced concrete construction with paved asphalt surfaces. Like other early portions of the bulkhead wharf it was a single structure whose design varied according to its location and original purpose. These differences were rendered largely irrelevant when, shortly after it was completed, Pier 30-32 was built outshore of the Section 10 and Section 11a bulkhead wharves. The entire length of Section 10 abutted Pier 30-32 — all but its southern portion. Section 10 of the bulkhead wharf never had a bulkhead building or other building on it. It appears little altered except for replacement of the asphalt paving and removal of the Belt Railroad tracks. The setting has changed with the construction of a connecting wharf between Pier 30 and Pier 32 in 1952, and with the loss of the Pier 30-32 sheds by fire in 1984.

Description

Section 10 of the bulkhead wharf stretches 537 feet along the Embarcadero from a point between the foot of Beale Street and the foot of Main Street on the south to the foot of Spear Street on the north. Built in 1910-1911 for Piers 30 and 32, it runs from the mid point of Pier 32 on the south to the north edge of Pier 30 on the north.

Section 10 of the bulkhead wharf is a rectangular structure measuring 537 feet along the waterfront by 27 feet from the seawall to the water front line. Although a single structure, its design varies according to its location and original purpose. For 108 feet on the north side of its junction with Pier 32 and for 218 feet at its junction with Pier 30, it is designed to carry loads associated with transit sheds and rail spurs and built to an elevation of 1.5 feet above City Base. For 206 feet between the piers, it is designed for lighter loads and is built to an elevation of City Base.

For those portions designed to meet the piers, Section 10 of the bulkhead wharf consists of twenty-six to thirty inch steel I-beams that span the twenty-seven feet from the seawall (labeled "retaining wall" on the drawings) to a heavy reinforced concrete pile at the water front line. Supports for three rail spurs cross Pier 30.

For those portions designed for the area between the piers, twenty-inch I-beams are cantilevered over piles inset from the water front line.

The outshore edge of the Section 10 bulkhead wharf abuts the piers and connecting wharf of Pier 30-32.

The only changes to Section 10 of the bulkhead wharf since the period of significance appear to be replacement of the original asphalt paving and removal of the Belt Railroad tracks. The setting has changed with the construction of a connecting wharf between Pier 30 and Pier 32 in 1952, and with the loss by fire of the Pier 30-32 sheds in 1984.

Construction History

Section 10 of the bulkhead wharf was designed and built just prior to construction of Piers 30 and 32, and was modified almost immediately as a consequence of revisions in the design of the piers.

"General Plans of Section No. 10 Seawall" including the bulkhead wharf, were prepared by the Board of State Harbor Commissioners, H.J. Brunnier in charge, under the supervision of Ralph Barker, Assistant State Engineer. The plans were submitted 11 April 1910, approved 19 May 1910, and revised 2 November 1910. The contract for construction was dated 17 July 1910. The structure was completed 2 August 1911 at a cost of $109,361.20. The contractor was Mercer-Fraser Company. (BSHC 1913: 94)

The plans for this structure, stretching from the middle of Pier 32 on the south to the north edge of Pier 30 on the north, were similar to previously built portions of the bulkhead wharf in structurally accommodating areas between piers in one way and areas that would join piers in a different way. The decks of the portions of the structure between the piers were cantilevered to the water front line which was outfitted with fenders.

In the development of Piers 30 and 32 the 1912-1914 biennial report of the Board of State Harbor Commissioners stated that "A deviation from former plans consists in making use of a portion of the space between the two piers outside of the water front line and extending the sheds over this space. The berthing spaces between the two piers are therefore shorter that those outside" (BSHC 1913:46). In making this plan, the just-completed portion of the Section 10 bulkhead wharf between Piers 30 and 32 was joined to a wharf that extended further into the water. The fenders at the water front line were removed and the reason for the cantilevered design of that portion of the bulkhead wharf was rendered obsolete.

In 1952, the slip between Pier 30 and Pier 32 was filled up by a connecting wharf. In 1984, the Pier 30-32 transit sheds were destroyed by fire.

The history of Section 10 of the bulkhead wharf is associated with Pier 30-32, with the operation of Belt Railroad spurs across the bulkhead wharf into Pier 30, and with the operation of horse-drawn conveyances and motor vehicles across the bulkhead wharf.

Pier 30-32 was built without a bulkhead building — the inshore ends of the transit sheds and the connecting shed between them were decorated like bulkhead buildings on other piers. Thus, no Pier 30-32 buildings or other known buildings were located on the bulkhead wharf.

In addition to its association with Pier 30-32, the Section 10 bulkhead wharf was depicted in a scene of rioting in a 1950's lithograph by Victor Arnautoff called "1934 Strike" (Hamlin 2002: D3). In the lithograph, representatives of shipping companies standing on the bulkhead wharf in front of Pier 32 are facing striking laborers in the Embarcadero.

Section 11a

See also Pier 30-32 Section 8 (Lost Feature) and Section 11 of the bulkhead wharf (Contributing Resource).

Description

Summary

Section 11a of the bulkhead wharf, stretching 281 feet along the Embarcadero, was built in 1912-1914 together with Piers 30-32. It is of reinforced concrete construction with piles and decks of reinforced concrete and paved surfaces of asphalt. Built in part for access to Pier 32, Section 11a never had a bulkhead building or other structure on it. The transit sheds on Pier 30-32 were destroyed by fire in 1984. Apart from this, Section 11a of the bulkhead wharf appears little altered except for replacement of the asphalt paving and removal of Belt Railroad tracks.

Description

Section 11a of the bulkhead wharf stretches 281 feet along the Embarcadero from the foot of Beale Street near its intersection with Brannan Street to the midpoint of Pier 32.

Section 11a of the bulkhead wharf was built in 1912-1914 together with Piers 30-32, most of which lie to the north of Section 11a. The structure is 281 feet long and 51 feet wide from the seawall to the water front — the "true water front line" is up to seven feet outshore of the edge of the bulkhead wharf. The south end of the structure, 177 feet long, runs between the north side of the site of Pier 34 on the south and Pier 32 on the north at an elevation of the City Base. The north end, 104 feet long, meets Pier 32 at an elevation of 1.5 feet above City Base.

Although the Section 11a bulkhead wharf serves two functions (it is between piers and it meets a pier), it is structurally consistent from one end to the other. The bulkhead wharf is generally supported on a grid of concrete piles so that there are rows of five piles between the seawall and the water front line. The outermost piles are inset from the edge of the reinforced concrete deck so that it is cantilevered to the water front line. The grid of beams on the deck is interrupted by supports for a rail spur in a gently curving alignment.

At either end of the Section 11a bulkhead wharf, there are concrete retaining walls similar in design but perpendicular to the seawall. They are concrete structures two feet wide at the top and seven feet wide at the bottom. Elements labeled "the old seawall" on Port drawings contribute to the support of the deck, sometimes in place of the concrete piles.

Changes to the Section 11a bulkhead wharf since the period of significance include replacement of the original asphalt surfaces and removal of the Belt Railroad tracks.

Construction History

Section 11a of the bulkhead wharf appears to have been built under unusual conditions — perhaps the reason why it was built separately from Section 11. According to a drawing prepared 17 January 1912 by the Board of State Harbor Commissioners, Charles Newton Young in charge under the supervision of A.V. Saph, it was built over and its design incorporates elements of "the old sea wall." It is not clear what the term "old sea wall" refers to, as the first seawall of 1867 to 1869, was built only in two segments further north, and earlier phases of the second seawall were built along the water front line rather than perpendicular to it, as is at least partly the case here. The nature and history of this feature remains unclear.

Section 11a of the bulkhead wharf was built as part of a larger effort to build Piers 30 and 32: "The contract for these piers includes a section 280 feet 8 5/8 inches long of seawall and bulkhead wharf closing the gap hitherto existing north of Pier 34;" the outshore edge of the deck is fitted with "a type of suspended fender in the effort to decrease the heavy maintenance cost" (BSHC 1913: 46). Section 11a of the bulkhead wharf stretches from near the corner of Beale and Brannan streets only to the midpoint of Pier 32 so that most of Section 11a lies south of Pier 30-32. The rest of the bulkhead wharf for Pier 30-32 was already in place (described in Section 10).

Section 11a of the bulkhead wharf was built with Piers 30 and 32 under a single contract. It was described as the "bulkhead wharf and retaining wall on Section 11a, seawall." The contract was dated 16 May 1912; it was completed 2 January 1914 at a cost of $1,002,054.53. The contract was won by Robert Wakefield and transferred to Pacific Wakefield Company (BSHC 1914: 107). A photograph of the bulkhead wharf under construction appeared in the biennial report for 1910-1912 (BSHC 1913: 16).

The history of Section 11a of the bulkhead wharf is associated with Pier 30-32 and with the operation of Belt Railroad spurs across the bulkhead wharf. Pier 30-32 was built without a bulkhead building — the inshore end of the transit shed was decorated like bulkhead buildings

on other piers. Thus, no Pier 30-32 buildings were located on the bulkhead wharf. The Pier 30-32 transit sheds were destroyed by fire in 1984, but the piers remain.

Section 11

See also Pier 34 Section 8 (Lost Feature) and Section 11a of the bulkhead wharf (Contributing Resource).

Description

Summary

Section 11 of the bulkhead wharf, stretching 353 feet along the Embarcadero, was built in 1909-1910. It is of reinforced concrete construction with piles of reinforced concrete and wood encased in reinforced concrete, decks of concrete and steel, and paving of asphalt. Section 11 was built for Pier 34 which was demolished in 2001. It appears little altered except for replacement of the asphalt paving and removal of Belt Railroad tracks.

Description

Section 11 of the bulkhead wharf stretches 353 feet along the waterfront from a point north of the foot of Fremont Street to the foot of Beale Street near its intersection with Brannan Street. The south end of this portion of the bulkhead wharf is about 44 feet north of Pier 36.

Section 11 of the bulkhead wharf was built in 1909-1910. The contract for construction covered an area 353 feet long and 60 feet wide. The bulkhead wharf itself is 25 feet wide from the water front line to the seawall. From the seawall to the curb of the Embarcadero is 35 feet.

Section 11 of the bulkhead wharf is a single structure with two types of construction. Unlike Section 12, these are not given different names but are described on the drawings simply by their locations: for example, “section at pier” and “section between piers.” The section at the pier is of heavier construction that the sections between piers. The section at the pier is built to an elevation of 1.5 feet above City Base while the sections between piers are built to City Base.

The bulkhead wharf at the point where it previously met with Pier 34 is 121 feet across. In that area, the upper portion of the seawall appears to be part of the new structure — the rock base of

the seawall was built in 1908-1909 (BSHC 1910: 84, 86). This portion of the seawall consists of a concrete block on top of a rock base. The concrete block is twenty feet high, three feet wide at the top and seven feet wide at the bottom with a straight wall on the inshore side and a battered wall on the outshore side. The twenty-five foot distance between the seawall and piles at the water front line is spanned by twenty-four-inch steel I-beams encased in concrete. The reinforced concrete piles at the water front line are three feet six inches in diameter.

The lengths of the bulkhead wharf on either side of the former site of Pier 34 are built with eighteen-inch steel I-beams encased in concrete spanning twenty feet from the seawall to wood piles (two foot diameters) with reinforced concrete casings. These I-beams are cantilevered an additional five feet to the water front line.

Both portions of the bulkhead wharf are covered by a deck of steel I-beams encased in concrete supporting a six-inch reinforced concrete slab that extends inshore to a curb at the Embarcadero. Built into the deck adjacent to the former location of Pier 34 are supports for a rail line.

The only changes to the bulkhead wharf in Section 11 since the period of significance appear to be replacement of the original asphalt surfaces and removal of the Belt Railroad tracks.

Construction History

Section 11 of the bulkhead wharf, described in drawings labeled for "Bulkhead Wharf on Section 11 of Seawall," was designed by H.J. Brunnier under the supervision of Ralph Barker, Assistant State Engineer. Drawings were dated 5 October 1909 and approved 17 October 1909. The structure was built by the Associated Contracting Company under a contract dated 11 November 1909. It was completed 19 May 1910 at a cost of $46,943 (BSHC 1910: 87).

According to the engineering drawings for this portion of the bulkhead wharf, Section 11 of the seawall stretched nearly 600 feet along the waterfront, from a point north of the foot of Fremont Street on the south to a point in the middle of the future Pier 32 on the north. This contract applied only to the bulkhead wharf over the southern 353 feet of seawall Section 11. This part of the bulkhead wharf has subsequently been referred to as Section 11 of the bulkhead wharf, and the remaining part on the north, built in 1912, is referred to on engineering drawings as Section

11A of the bulkhead wharf. While these drawings are the definitive source, the naming and locations of Sections 11 and 11A of the bulkhead wharf are confused by the Map of the Waterfront which appears at the end of every biennial report. This map shows Section 11 extending to the mid point of Pier 36 on the south.

Section 11 of the bulkhead wharf was built in part for Pier 34 which was under construction at the same time. The history of Section 11 of the bulkhead wharf is associated with the history of Pier 34 from 1909 until it was demolished in 2001 (Port of San Francisco 2004). Pier 34 was covered by a transit shed only — no bulkhead building was ever built on the bulkhead wharf. The Belt Railroad operated lines across the bulkhead wharf from the Embarcadero to Pier 34 from 1910 until the pier was demolished. There is no evidence that other buildings were built on Section 11 of the bulkhead wharf.

Section 12

See also Pier 36 (Contributing Resource), Pier 38 (Contributing Resource), Pier 40 (Contributing Resource), and Java House near Pier 40 (Contributing Resource).

Description

Summary

Section 12 of the bulkhead wharf, stretching 1,167 feet along the Embarcadero, consists of two legs — two separate structures — each completed in 1909. The two legs are of similar design and construction in steel and reinforced concrete, with piles of both reinforced concrete and also wood encased in reinforced concrete, decks of concrete and steel, and surfaces paved in asphalt. The north leg was built for Piers 36 and 38; the south leg was built for Pier 40. They have been altered by replacement of the asphalt surfaces with new treatments for public access, removal of Belt Railroad tracks, and removal of the Pier 40 bulkhead building. While the surface and deck have been altered the structure of the bulkhead wharf in Section 12 appears to be little altered since the period of significance.

Description

Section 12 of the bulkhead wharf stretches 1,167 feet along the waterfront from the foot of King Street to the foot of Fremont Street. In plan, it consists of two straight legs that meet near the intersection of Townsend and First streets in an obtuse angle. These legs were built about the same time — both were completed in 1909 — to somewhat different designs under different contracts by different construction companies.

The northern leg was built in 1908-1909. Drawings for the structure show that the contract covered an area that measured 600 feet along the Embarcadero by 60 feet wide from the water front line to the street curb on the Embarcadero. The bulkhead wharf itself is twenty-four feet wide from the water front line to the top of the seawall. It appears that the seawall was provided with a new concrete top section as part of the construction of the bulkhead wharf.

The north leg of the bulkhead wharf is a single structure with two types of construction corresponding on the one hand to those areas which would meet Piers 36 and 38, and on the other hand to the areas between the piers. Those areas adjacent to the piers, which the drawings called “pier approaches,” are of more massive construction and rise to an elevation of 1.5 feet above City Base — in contrast to the connecting wharves between the piers, called “bulkheads,” which are at the same elevation as the City Base.

For the pier approaches, twenty-six-inch steel I-beams encased in concrete span the area from the top of the seawall to reinforced concrete piles at the water front line. The piles are 3.5 feet in diameter. For the connecting wharves, eighteen-inch steel I-beams encased in concrete span the area from the top of the seawall to a line of wood piles “protected with reinforced concrete” (two feet in diameter). These are set back five feet from the water front line so that the deck of the wharf cantilevers to the water front line. The deck itself is outfitted with mooring bitts. Both the pier approaches and the connecting wharves are covered by a deck of steel I-beams encased in concrete supporting a six-inch reinforced concrete slab that extends inshore to a granite curb at the Embarcadero. The concrete slab was originally topped with two inches of asphalt paving.

Crossing portions of both types of construction on the north leg, there is a diagonal path of supports in the deck for one rail spur into Pier 36.

The southern leg of the Section 12 bulkhead wharf is less completely documented than the northern leg. While it was built under a single contract, drawings are available only for the pier approach to Pier 40 — there are no drawings of the connecting wharves on either side of Pier 40.

The pier approach to Pier 40 measures 130 feet along the Embarcadero, twenty-six feet across from the water front line to the seawall, and sixty feet from the water front line to the curb of the Embarcadero. The design is different from the northern leg in two respects. This section of the bulkhead wharf is tied into the seawall and the fill behind it by reinforced concrete wing walls at either end, each measuring twenty feet long, four feet across, and thirteen feet high. While the wharf also spans the area between the seawall and the water front line on a twenty-six-inch steel I-beam, here each beam is supported at its outshore end by two piles each about two feet in diameter. One of these is inset four feet from the water front line and one is at the water front line. The inner pile is a “wood pile protected by concrete casing” beneath a reinforced concrete pile. The outer pile is reinforced concrete. The deck structure and paving are similar in design to those for the northern leg.

Changes to the bulkhead wharf in all of Section 12 since the period of significance are replacement of the original asphalt surface, removal of Belt Railroad tracks, and removal of the Pier 40 bulkhead building. In addition, the setting has been altered by the development of South Beach Harbor marina and a park south of Pier 40 in Section 13.

Construction History

Board of State Harbor Commissioner’s drawings dated 1900 and 1908 show Section 12 of the bulkhead wharf in two straight legs meeting in a shallow obtuse angle near the intersection of Townsend and First streets. The southern leg was 500 feet long and the northern leg was 627 feet long. In 1908, 127 feet at the southern end of Section 12 of the seawall had not yet been completed, the seawall lots had not yet been filled behind portions of the Section 12 seawall, and remnants of old wharves along First, Fremont, and Brannan streets behind the seawall were not yet removed.

On 16 January 1908, plans were approved for a new bulkhead wharf along the southern leg of Section 12. This measured 500 by 60 feet and was to be built with creosoted wood piles and a

wood deck. The design of the wharf was shown as structurally uniform from one end to the other, except for the absence of fender piles and chocks along the water front line where the site was indicated for "proposed Pier 40." This wood bulkhead wharf was constructed later that year (BSHC 1910: 80).

When the southern leg of the Section 12 bulkhead wharf was only a few months old, the Board of State Harbor Commissioners adopted a new policy "to replace failing wooden bulkhead wharves with reinforced concrete protected steel girder construction" (BSHC 1910: 23). A drawing dated 1 September 1908 proposed a new reinforced concrete bulkhead wharf in the northern leg of Section 12, providing approaches to Pier 36 and Pier 38. The name of the engineer in charge is illegible on the drawing, but revisions were made 19 November 1908 by H.J. Brunnier, under the supervision of Ralph Barker, Assistant State Engineer. Construction was begun by the Pacific Construction Company before 25 November 1908 when the first payment was made. This leg was completed 18 March 1909 at a cost of $71,375. (BSHC 1910: 83).

The southern leg of the Section 12 bulkhead wharf, described as "an approach to Pier 40 and a bulkhead wharf between Piers 38 and 40," was begun under a contract dated 5 August 1909. Following demolition of the recently built wood wharf, the new concrete wharf was completed 18 November 1909 by the Western Bridge and Construction Company at a cost of $27,563 (BSHC 1910: 87). Drawings for this leg were prepared by H.J. Brunnier under the supervision of Ralph Barker, Assistant State Engineer.

The southern leg of the bulkhead wharf for Section 12 was built in part for Pier 40, which was also begun in November 1908. The history of this portion of the bulkhead wharf is associated with the history of Pier 40, including construction of the bulkhead building in 1934-1935 and its demolition between 1975 and 1983. It is also associated with operation of the Belt Railroad to and from Pier 40 from 1909 to the 1980s. South of Pier 40 on this leg of the Section 12 bulkhead wharf, there has been a small restaurant (Java House) since an unknown date before 1949 (in that year it appeared on a Sanborn map).

The northern leg of the bulkhead wharf for Section 12 was built in part for Piers 36 and 38. The history of this portion of the bulkhead wharf is associated with the histories of those two piers. For Pier 36, it is associated with the car ferry operation from 1909 to the 1980s. In 1913, the Sanborn map showed a small rectangular wood office building on the bulkhead wharf in front of Pier 36. This was moved or demolished in 1917 when the Pier 36 transit shed was extended across the bulkhead wharf. For Pier 38, it is associated with the history of that pier beginning in 1909, including construction of a bulkhead building on the bulkhead wharf in 1934-1935.

Pier 48 Section

See also Pier 48 (Contributing Resource).

Description

Summary

The Pier 48 bulkhead wharf is a reinforced concrete structure built in 1928-1929 from the north side of Pier 50 on the south to the south side of China Basin. The structure is 500 feet long and 53 feet wide. The only alteration to the bulkhead wharf at Pier 48 appears to be repaving of the asphalt surface. North of Pier 48, the surface of the bulkhead wharf is obscured by features of China Basin Park.

Description

The Pier 48 bulkhead wharf is a reinforced concrete structure built in 1928-1929 from the north side of Pier 50 on the south to the south side of China Basin. The structure is 500 feet long and 53 feet wide.

Details of the design are not clear. The structure referred to as the bulkhead wharf extends further outshore than most bulkhead wharves — 38 feet beyond the water front line. From the seawall (described here only as a retaining wall) to the outshore edge of the bulkhead wharf, the deck is supported on alignments of six piles — the inner four are concrete jacketed wood piles, the outer two are concrete piles. Like some of the earliest concrete bulkhead wharves, the deck is cantilevered at the outshore edges. Additional supports are provided in three curving

alignments for rail spurs. The inshore ends of the transit sheds extend partly across the bulkhead wharf.

The only alteration to the bulkhead wharf at Pier 48 appears to be repaving of the asphalt surface. That portion of the bulkhead wharf that extends north to China Basin underlies a portion of China Basin Park that includes "Barry Bonds Junior Giants Field" and a statue of Willie McCovey cast in 2003. These surface changes obscure the visible presence of the bulkhead wharf.

Construction History

The bulkhead wharf at Pier 48 was first proposed as a much larger structure, "Extending from the entrance to Channel Street to Pier 54; reinforced concrete structure 47 feet in width and 2,145 feet in length." Detailed drawings of this proposed structure were published in the biennial report for 1916-1918. (BSHC 1919: 48-49) The biennial report for 1922-1924 reported on preliminary studies for Piers 48, 50 and 52, including a site plan (BSHC 1924: 52, 55-56).

Instead of building this all at once, however, the Board of State Harbor Commissioners broke it into parts. From 1924 to 1926, the Harbor Commissioners built 806 feet of bulkhead wharf from the north side of Pier 50 southward to a portion of the proposed site of Pier 52 (BSHC 1926: 43, 53). This portion of the bulkhead wharf is outside the boundaries of the historic district.

At that time, the Board of State Harbor Commissioners reported on the area of the future Pier 48 bulkhead wharf between Pier 50 and the southeast corner of China Basin:

> The bulkhead wharf between the section which was to be constructed in connection with Pier 50 and the Santa Fe car ferry slip is an old timber structure. It is in need of extensive repair and it was the intention to replace it with a reinforced concrete structure, at the time of the construction of Pier 48. As this work has been indefinitely postponed it is recommended that the wharf be constructed independently, with provisions for connecting Pier 48 whenever it is built. (BSHC 1926: 62).

Although construction was delayed, development of plans was underway on Pier 48, "with a section of bulkhead wharf 53 feet in width by 500 feet in length." The Pier 48 bulkhead wharf,

the pier, and the sheds on the pier and the bulkhead wharf were built under a contract dated 7 March 1928. These structures were built by Healy-Tibbitts Construction Company for $586,322.98 and completed on 17 July 1929. (BSHC 1931: 75). A "pile plan and general floor plan" of Pier 48 was prepared by Oliver W. Jones under the supervision of Frank G. White, Chief Engineer, dated 1 April 1926. This shows that the 1916-1918 plan was abandoned, although it does not provide much detail.

The history of the Pier 48 bulkhead wharf is associated with the history of Pier 48.

PIERS AND BUILDINGS

Introduction

The piers are described below in the order in which they are found facing the Embarcadero, from north to south. This is the order in which the Board of State Harbor Commissioners has traditionally listed the piers.

For definitions of Port terminology and historic district resources refer to Section 8 - Definitions.

General Character of Piers

Piers are generally perpendicular to the seawall, and extend from the seawall and bulkhead wharf into the bay to distances of 700 feet or more. Most piers consist of three component elements. One is the pier *substructure*, which consists of *pilings*, *caps* that span the pilings, and a *deck* that rests upon the caps. Another element is the *transit shed*, an enclosed space that rests upon, and covers most of the pier deck. The transit shed is a short-term warehouse for goods in transit — shipped goods that recently arrived in port, or goods that are about to be shipped. The third part is the *bulkhead building*, which is also an enclosed space resting on the bulkhead wharf. The bulkhead building is located in front of the transit shed, near the Embarcadero. It was usually built one to three years after the transit shed was completed, although in one case, at Pier 38, it was built more than two decades later. It is usually different from the transit shed in materials, dimensions, and architectural treatment, and it houses offices and passenger facilities.

Two piers, 17 and 36, have no bulkhead building and have very plain fronts. Four other piers, 26, 28, 45, and 48, have elaborate architectural fronts, but these fronts are structurally integral with their transit sheds. These piers have no separate bulkhead buildings, although they also incorporate offices at the inshore end of the pier.

Pier Substructures

The substructures of piers consist of concrete or wooden piles that have been sunk into the bay mud; concrete, wooden, or steel caps that span these piles; and a concrete or wooden deck that rests upon these caps. The portion of the substructure that is under the transit shed is nearly always made of reinforced concrete; i.e., a concrete deck laid over concrete caps which rest upon concrete piles. The apron of the pier substructure — that is, the portion that skirts the transit shed — generally measures 20 feet in width on each side. It is sometimes made of wood and sometimes made of concrete. When it is made of concrete, the apron is structurally identical with the rest of the substructure. When it is made of wood, the apron consists of a wooden deck laid over wooden stringers that span wood timber caps which span wooden piles. Although wooden aprons have short lives, and need to be replaced periodically, they can absorb the shock of contact with docking ships, and serve as a protective shock absorber to the rest of the pier substructure.

The deck is the top surface of the pier substructure. Most of the pier deck is covered by a transit shed, and serves as its floor. That portion of the deck which is located outside of the transit shed is known as the apron. The apron was used as a space for transferring goods from ship to pier, or vice versa. The deck of nearly every pier is now covered with asphalt, although some aprons originally had surfaces of wooden planks or blocks. Asphalt or other smooth paving materials (including bituminous paving, bituminous concrete, and Topeka) were used to create smooth surfaces on portions of piers and the bulkhead wharf as early as 1908, as can be seen on engineering drawings at the Port of San Francisco. Biennial reports from the 1910s through the 1930s show that smooth paving was common in those years.

Rail spurs were laid along the long sides of pier aprons. As a general rule, the rail spurs were “flush” with the deck of the pier on one apron, and were “depressed” to a level three or four feet below the deck on the other apron. A depressed rail spur formed a loading dock so that goods

could be easily transferred from a rail car into the transit shed, or vice versa. Rail spurs joined with the Belt Railroad on the Embarcadero by passing through, or running along the side of, the bulkhead building. Since World War II some of the depressed rail spurs have been rebuilt as flush rail spurs. Since the 1960s or 1970s some of the flush rail spurs have been covered with asphalt, so that only their outlines are visible. Although the rail spurs have been removed from most sections of the bulkhead wharf they are still present on many pier aprons.

Appurtenances such as fender piles, mooring bitts, and mooring cleats can be found on the aprons. Fender piles are logs that are attached to the outside perimeter of the aprons and serve to protect the structure of the pier against impact from ships. Mooring bitts are large, cast iron bollards made for wrapping ropes around, in order to secure ships to the pier. Mooring cleats are smaller cast iron devices made for the same purpose. Both bitts and cleats are mounted on the outer perimeter of the deck. Frequently they possess foundry marks identifying the iron foundry that made them — Phoenix Iron Works, Vulcan Iron Works, and Enterprise Foundry.

Transit Sheds

Transit sheds are buildings constructed upon the deck of pier substructures. They serve as warehouses for the storage of goods that have just been unloaded from ships, or that are about to be loaded onto ships. They are usually, but not always, located behind an ornamental bulkhead building at the front of the pier. Their interiors are generally raw and unfinished, and the contrast with the more finished public face of the bulkhead buildings is an expression of their role as a workplace.

Structurally, there is great variety among the transit sheds of the waterfront. The majority of transit sheds have steel frames and walls of reinforced concrete. Of these, the older transit sheds may have concrete walls that were poured in place. The more recently built sheds — i.e., those from the late 1920s and the 1930s — have walls of pre-fabricated concrete panels that were lifted onto their frames by cranes. One shed, at Pier 9, has both pre-cast and poured-in-place concrete walls. Two sheds, at Piers 31 and 33, have timber frames and walls of concrete. Two sheds, at Piers 17 and 35, have timber frames and walls of wood; and one, at Pier 26, has a steel frame and walls of metal and wood. Other piers also had transit sheds that were made of wood, but these

have often been destroyed by fire (e.g., at Piers 24, 30 and 32) or simply demolished (e.g., at Pier 3).

The roof of a transit shed generally has an extremely shallow pitch, and is almost flat. There are three exceptions to this pattern: Pier 17 has a gabled roof with a steep pitch, and Piers 29 and 35 each have roofs with three steeply pitched gables, one over each aisle. Roofs are composed of wood planks that rest upon trusses (see below). Exceptions are at Piers 28, 36, 38, and 40 which have concrete roofs. All transit shed roofs have monitors that admit light. Most of these monitors run continuously from the front of the transit shed to the rear wall; but two transit sheds, at Piers 29 and 33, have roofs with series of square monitors that run intermittently along the ridgeline.

In all cases, transit shed roofs are supported by systems of trusses. Trusses run both longitudinally, for the full length of the transit shed, and transversely, from side wall to side wall. In most transit sheds trusses are steel and are supported by steel I-beams. Piers 17, 31, 33, and 35, however, have transit sheds with wood roof trusses, and Pier 29 has trusses of wood and of steel. Wooden roof trusses are supported variously by steel I-beams and wood posts. These rows of supporting I-beams or posts divide the interior of the transit shed into three aisles. The exception to this pattern is in Pier 26, where a single row of I-beams divides the interior space into two aisles.

Most transit sheds have fire baffles affixed to several of the roof trusses. These baffles are meant to calm the flow of air through the shed in the event of fire. Most fire baffles are made of corrugated metal, but at Piers 31, 33, and 35 they are made of wood planks.

The exterior rear walls of transit sheds always have a restrained architectural treatment, compared to the elaborate treatment of bulkhead buildings, but the treatment is seldom plain. Arched window and door openings, molded piers, and simple cornice moldings convey a sense of style, generally of restrained classicism.

Large, metal roll-up doors can be found in the long sides of all transit sheds and in the rear walls of some transit sheds. Only Pier 17 has wood sliding doors on its long sides. These cargo doors

permit the movement of goods between the deck apron and the interior of the transit shed. Windows in the transit shed walls and monitors usually have steel sashes but are occasionally wood. Glass is variously wire glass and plate glass.

A few transit sheds still have painted wooden “No Smoking” signs that appear to date from the 1940s or earlier and that are suspended from roof trusses. One or two piers still have locker rooms and rest rooms from the same period.

Bulkhead Buildings and Decorated Fronts

Bulkhead buildings are so called because they are located at the fronts of piers, on a line with the city’s seawall (also called the bulkhead), and on top of the bulkhead wharf. As a rule the bulkhead building is wider than the transit shed that is located directly behind it. No wall separates the bulkhead building from the transit shed, but because the two are different in dimensions, architectural treatment, use, and often materials, and were usually designed and built separately, it is useful to consider them separately. Generally, the bulkhead building was built from one to three years after the transit shed was completed, although the two may have been designed simultaneously.

Bulkhead buildings are made of wood and are clad in stucco. Open stud framing is usually visible on the interior. Sheet metal is generally employed to form elaborate cornice moldings in the Classical Revival bulkhead buildings. The central parapet rises to a peak and is topped off by a flagpole.

Bulkhead buildings have elaborate decorated fronts. All of the bulkhead buildings from Pier 1 through Pier 35 are Classical Revival in style. Pier 38 has a bulkhead building that is Mediterranean Revival in style. Piers 26, 28, 45, and 48 have no bulkhead building but have fronts that are variously Mission Revival and Gothic in style.

A rail spur once passed through the monumental arched portal in the center of most bulkhead buildings. In some bulkhead buildings the rail spur survives, though in all instances the rail has been cut and removed from the sidewalk and the street. In some piers, a secondary portal exists through which another rail spur passed. These portals have metal roll-up doors. Wheel guards

made of cast iron can be found at the base of each portal. Hinged doors for pedestrians can be found to the right or left of the large central portal. These doors are wood, are often clad in sheet metal for durability, and usually have lower panels and upper lights.

Windows are always divided into many lights, usually by wood muntins.

Raised metal letters reading “Pier 1,” “Pier 3,” and so forth, can be found in the gable area above the arched opening of each bulkhead building. In 1932, sheet metal signs with back lighting were affixed to the exterior of nearly every bulkhead building. These signs stated the pier number and pointed the way to the pedestrian entrance. A rope motif forms the perimeter of each of these signs.

Piers 26, 28, 45, and 48, which have no separate bulkhead buildings, have transit sheds that extend to the front of the pier and have elaborate architectural fronts. Piers 17 and 36 also lack bulkhead buildings. They each have plain fronts of wood and stucco. Although not separate structures, offices are located at the bulkhead end of these structures as well.

In a few cases bulkhead buildings are very wide relative to the piers they front. At Piers 1 through 5, for example, bulkhead buildings form a nearly continuous front along the waterfront — the Piers 3 and 5 bulkhead buildings are separated by a few feet. These buildings contain offices that were used by shipping companies.

Bulkhead Connectors

Bulkhead connectors are buildings on the bulkhead wharf that augment the capacity of adjacent transit sheds. They generally appear to continue the wings of the bulkhead buildings. Sometimes they are extensions of existing bulkhead buildings. Sometimes they are freestanding structures. Structurally they are similar to the bulkhead buildings. In ornamentation, they are compatible with adjacent bulkhead buildings. Bulkhead connectors were built to accommodate trucks. More of them were built as truck transport increased in the 1920s and 1930s. Sometimes bulkhead connector buildings were referred to as pier annexes, such as Pier 24 Annex and Pier 26 Annex. Pier 24 Annex was actually built on a connecting wharf outshore of the bulkhead wharf.

Waterfront Restaurants

Small wood sheds were built on the bulkhead wharf for a variety of purposes, including wharfingers, pier security, and restaurants. Before the reconstruction of the port beginning in 1909, one- and two-story wood buildings were also built as offices for shipping companies. With the construction of big bulkhead buildings at the ends of piers from the 1910s to the 1930s, most types of activities previously housed in sheds were moved into the bulkhead buildings. An exception to this development was an increase in small wood buildings on the bulkhead wharf for restaurants, especially after 1934. These were plain wood structures built by the Board of State Harbor Commissioner's staff. They were decorated by painted signs and advertisements.

The 1949 Sanborn maps showed eight small buildings up and down the bulkhead wharf labeled either "restaurant" or "lunch room," and one across the Embarcadero on port property — the Eagle Cafe. In that year, two of these (Red's Java House at Pier 30 and the Pier 28½ Restaurant) were shown with additions. By 2001 there were five of these restaurants left, one of which — the Eagle Cafe, had been relocated to the second floor of the tourist Pier 39. The Waterfront Restaurant — see Pier 7 (Waterfront Restaurant), a Non-Contributing Resource — is in a structure that is a portion of the old Pier 7 bulkhead building and is associated with the history of the old Pier 7 rather than with restaurants on the bulkhead wharf. Red's Java House at Pier 30 is part of the Pier 30-32 complex which is not included in the district due to its lack of integrity (See Section 8 – Lost Feature. The following three cafes are contributing resources within the district: Pier 23 Café, Pier 28 ½ Restaurant and Java House at Pier 40.

Pier 45

See also Pier 45 Section of the bulkhead wharf (Contributing Resource) and bulkhead wharf Section B (Non-Contributing Resource).

Description

Summary

Pier 45 is the largest pier in the Embarcadero Historic District. It consists of a pier substructure on which four transit sheds are built. The substructure was built during 1926-1927 along with

the Pier 45 Section of the bulkhead wharf, and the transit sheds, complete with their architectural fronts, were built in 1928-1929.

Changes to Pier 45 since the period of significance include removal of rail spurs and demolition of the hoisting tower. The most substantial changes were made following the 1989 Loma Prieta earthquake, when the substructure was strengthened and walls were repaired.

Substructure

The Pier 45 substructure was built in 1926-1927. The reinforced concrete deck of Pier 45 is 662 feet long on its south end (at the Embarcadero), 1,204 feet long on its west side, and 1,428 feet long on its east side. At its north end the deck is notched to form a docking slip. The pier is at an angle to the seawall in order to fit its extraordinary length within the pier head line.

The deck rests on solid landfill in the middle and reinforced concrete piles elsewhere beneath the transit sheds. The outer aprons are wood, and rest on wood stringers and caps supported by creosoted wood piles.

Rail spurs once ran along the outer aprons and down the central driveway between the sheds to a slip and hoisting tower for a car ferry. The hoisting tower was moved to this location in 1929. None of the rails are readily evident today; some have been covered with asphalt, and others may have been removed. The car ferry hoisting tower and slip were removed after 1949 (Sanborn Map Company 1949: volume 1, p. 112). The central driveway is depressed relative to the floor of the sheds, creating loading docks. Mooring bitts and mooring cleats can be found mounted to the perimeter of the outer aprons, and fender piles are attached to the sides of the aprons. Changes were made to the substructure in the 1990s as part of a seismic retrofit following the 1989 Loma Prieta earthquake. Floors of the sheds were demolished in order to inject grout to halt liquefaction and stabilize the sand based foundation.

Transit Sheds

There are four transit sheds on Pier 45 built in 1928-1929. Sheds A and B are located side-by-side facing the Embarcadero, while sheds C and D are placed behind A and B, respectively. Sheds A and B have ornamental fronts, while C and D have plain fronts. Sheds A and C have

aprons along the water on their east sides, while B and D have aprons along the water on their west sides. A depressed driveway provides loading dock access to each shed along the interior of Pier 45. Shed D was built with a lookout station on the roof at its outshore end.

Each shed is constructed with a steel frame and pre-cast reinforced concrete walls. The long (east and west) walls of each shed are scored on the exterior and form inset panels on the interior. The rear walls of sheds A and B and the front walls of sheds C and D are plain in treatment. The rear walls of sheds C and D, which face the water, have very restrained architectural treatments which reflect the Gothic fronts of sheds A and B.

The wood roof is laid on steel rafters supported by steel trusses and I-beams, and rises to a central, gabled monitor that runs the length of each shed. Windows in the walls and monitors have fixed steel sash, and all windows (except in the fronts of sheds A and B) are glazed with wire glass. Roll-up metal doors were originally placed in every wall of all four transit sheds. They remain in place, except in the long (east and west) walls of shed A, where nearly all of the roll-up doors were removed (in 1995) and replaced with plywood. In addition, the transom window in the front has been covered over or removed.

The interiors of sheds A and C remain open as large spaces, while the interiors of sheds B and D have been subdivided by partitions into many small spaces. The lookout station on the roof of the outshore end of Shed D was expanded in 1958 and remodeled in 1959 and 1961. Walls were repaired after the 1989 Loma Prieta earthquake.

Architectural Fronts

Unlike most piers on the San Francisco waterfront, the transit sheds on Pier 45 are not fronted by bulkhead buildings. Sheds A and B, however, do possess ornamental fronts that are similar in treatment and level of detail to the bulkhead buildings in front of other piers. The style of these fronts is derived from Gothic Revival sources. In style, it is similar to one other pier in San Francisco, Pier 48.

Sheds A and B have nearly identical fronts. Each has a central pavilion with a monumental Gothic arch bordered by pairs of monumental piers. The central pavilion is flanked by flat

roofed bays, with three bays to the west and three to the east. The front is covered with stucco, and plaster panels with Gothic arches can be found at the tops of each pier and across the top of the arch. The central pavilion is topped by a flagpole.

The arch is filled by a pair of steel roll-up doors separated by a steel I-beam, a sheet metal transom bar, and a transom window. The window in shed B is filled with steel sash, but that in shed A is now covered over. Wooden, metal-clad doors with upper lights can be found to either side of the monumental arch. Windows of steel sash fill each of the flanking bays.

Construction History

In the Biennial Report of 1924-1926, the Board of State Harbor Commissioners announced plans for Piers 45 and 48:

> Plans have been adopted for two modern piers of mammoth size which will be built as soon as possible to meet fast-growing commerce and accommodate the largest freighters. One of the great piers, which will be built at the foot of Taylor street on the north bay front, will be 1200 feet long and 382 feet wide and will be No. 45. The other new pier will be on the south front 610 feet long and 376 feet wide. This pier will extend into very deep water near Mission Rock and will be No. 48. (BSHC 1926:12-13)

In the same Biennial Report, the Chief Wharfinger was optimistic about the impact of these new piers:

> The present Board of State Harbor Commissioners, through vision of the future development of this great harbor of ours, has heralded a new era of adequate facilities which, naturally, means quick dispatch of cargoes and added pier space, which in turn avoids the expense of piling and affords the possibility of many other necessary eliminations. The construction of Pier 45 alone verifies my statement as to the building program of this Board. In that pier we will have length, which is the vital point in all new construction of the future. (BSHC 1926:48)

The Pier 45 substructure was designed with H. Baldwin in charge under the supervision of Frank G. White, Chief Engineer, in plans dated 26 August 1926. The sheds were designed by H. B.

Fisher on 10 July 1928. The two principal contractors were Healy-Tibbitts Construction Company for the substructure and MacDonald & Kahn for the sheds. The project was completed in the summer of 1929 at a cost of about $2,000,000.

While it was under construction, it was described as follows:

> Three complete sets of plans were prepared, one for an open pile structure and the other two for a solid fill structure, the difference being in the type of bulkhead retaining wall for enclosing the filled section. Bids were received on September 23, but were rejected as unsatisfactory and the work was readvertised. On October 13 bids were again received and the contract was awarded for construction of a structure with a filled core enclosed by loose rock retaining walls.
>
> The pier as designed is 382 feet in width, 1200 feet in length on the westerly side and 1313 feet in length on the easterly side. It extends into the bay between Taylor and Jones streets, and the length is secured by projecting the axis at an angle of 37° 30′ with the water front line. In the center of the structure is a depressed section 75 feet in width in which are located four railroad tracks and two driveways. Two tracks will serve the transit sheds on either side, and the other two will lead to the car ferry slip which is to be constructed in the center of the outer end of the pier. In addition two tracks are provided on each side of the pier for direct cargo movements between ship and car. There will be four transit sheds, the outer pair being accessible to trucks from the depressed driveways by means of ramps.
>
> The filled core of the pier is 210 feet in width at the top and the rock wall slopes extend to the sides of the pier, provision being made to permit of dredging of slips to a depth of 35 feet. For a width of 56 feet the deck over the rock slope is of reinforced concrete on concrete piles, this construction extending to the outside of the transit shed. The two shipside tracks on either side are carried on a creosoted pile and timber apron 30 feet in width. The core fill was made by depositing sand excavated by a suction dredge from the slips alongside.
>
> The four transit sheds are to be of steel frame construction with concrete walls, galvanized steel sash and steel rolling doors. The shed fronts will be of reinforced concrete cast in place and the remainder of the walls will be constructed of precast reinforced concrete slabs. (BSHC [1928]:37, 39)

A unique feature of this pier was its lookout station:

> On the roof at the outer end of the outer shed on the westerly side of the pier a lookout station was provided for the Marine Department of the Chamber of Commerce. From this point there is an unobstructed view out through the Golden Gate and around the waterfront for a considerable distance to the east and southeast. (BSHC 1931:18-19)

The car ferry slip equipment was moved to the site:

> The ferry apron, hoisting machinery and the head frame from one of the slips at Powell Street were moved to the new location and a new fender system and head house were constructed. (BSHC 1931:18)

The lookout station on the roof of shed D was expanded in 1958, and the expansion was modified in 1959 and 1961.

Unlike most other piers which were occupied by a single primary tenant, Pier 45 is so large that it has been used by a number of shipping companies at one time. In 1933, Dimond & Company and Matsui & Company were the principal occupants. In 1935, Williams-Dimond Company and Pacific-Atlantic Steamship Company were the principal occupants. After World War II it was the first location of Foreign Trade Zone No. 3. In 1960, it was occupied by Matson Terminals.

Pier 43 (Car Ferry Headhouse)

See also Section B of the bulkhead wharf (Non-Contributing Resource) and Pier 43½ Section 8 (Lost Feature).

Description

Summary

Car ferry facilities at Pier 43 — a pier with a slip and a headhouse — (a decorated hoisting tower comprised of machinery and equipment used to operate a hinged ramp to load and unload rail cars on and off of ferries) were built in 1914 to serve the Belt Railroad. The wood pier was replaced in 1996 after the period of significance. The headhouse was rehabilitated in 2002-2003 to the Secretary of the Interior's Standards after a fire in 1998.

Pier

Pier 43, at the foot of Powell Street, is built outshore of Section B of the bulkhead wharf. It forms an angle with the bulkhead wharf and is oriented northwest–southeast

Pier 43 is a wood structure with wood piles and a wood deck, built in 1996 around the Pier 43 Car Ferry Headhouse, a contributing resource built in 1914.

Headhouse

Pier 43 originally consisted of two principal parts built in 1914 — a portion of a pier or dolphin that was built as part of a car ferry slip and a headhouse whose mechanism once lifted a hinged ramp for the loading and unloading of rail cars. The pier originally had a car slip formed by two dolphins (these look like two prongs of a pier but they consist of an arrangement of piles for mooring rather than for supporting freight). The east dolphin has been demolished and rebuilt as a stub, and the west dolphin has been rebuilt — both were rebuilt after the period of significance. Of its original features, only the headhouse remains on the rebuilt stub of the east dolphin, known as Pier 43. The architectural features of the headhouse were rehabilitated according to the Secretary of the Interior's Standards in 2002-2003 after being damaged by fire 1998.

The headhouse is a heavy timber structure that houses mechanical hoisting equipment. The structure consists of two towers spanned by a truss over a hinged ramp. On either side of the frame of the headhouse are small engine houses. By means of cables and wheels inside, the engines originally provided power to raise and lower the hinged ramp so that the ramp could be aligned with the deck of an incoming car ferry at varying tides. During renovation work on the structure in 2002, the machinery inside appeared to be in place.

The structure is clad in stucco and decorated as a Neoclassical gateway. At the center is a round arched opening with a coved molding. The structure is articulated by a classical order with pilasters of quoins at the corners supporting an entablature with a dentilled cornice. The entablature is angled in a shallow gable over the center of the arch.

Construction History

Car ferry facilities were planned for this location during the biennium 1912-1914. According to the Biennial Report:

> The present car ferries at the foot of Lombard Street are to be torn out to make room for piers and two new ones are being built between the foot of Powell Street and the foot of Taylor Street. They are of creosoted piles carrying a timber deck planked with Oregon pine, which on the eastern dolphin is covered with a wearing surface of cedar to permit of teaming when this dolphin is used for berthing vessels. The construction follows the plan of the present car ferry slips in general, but with steel aprons and wider dolphins supplied with more tracks, there being two of these on the easterly dolphin, four in the middle one and two on the westerly dolphin. (BSHC 1914:53)

As originally built, this facility consisted of two car ferry slips formed by three dolphins, as shown on the plans. The plans were prepared in charge of Charles Newton Young under the supervision of Jerome Newman, Chief Engineer (BSHC 1914:38). A contract for constructing this facility was awarded on 26 March 1914 to Healy-Tibbitts Construction Company for $110,600 (BSHC 1914:122). The work was completed 10 December 1914 at a total cost of $144,593.50.

At the time the project was completed, the port was actively improving and extending the Belt Railroad. The Board of State Harbor Commissioners pointed to these achievements with pride, and included a full page photograph of the headhouse at Pier 43 as the lead illustration in the Biennial Report of 1914-1916. The headhouse was the only feature of the Belt Railroad with architectural embellishments and as such it was a prominent representative of the Belt Railroad to the public.

Pier 43 was rebuilt around the headhouse in 1996. The headhouse was damaged by fire in 1998 and was rehabilitated to the Secretary of the Interior's Standards in 2002-2003.

Along with a wide apron for staging rail cars at Pier 36 this is the last vestige of the car ferry operations — an important aspect of the port's history — within the district. (See Section 8: Criterion A, Transportation, Belt Railroad for more detail on car ferry operations and facilities.)

Pier 35

See also Section 2 of the bulkhead wharf (Contributing Resource).

Description

Summary

The bulkhead wharf and pier substructure of Pier 35 were built in 1914, and the bulkhead building and transit shed were built in 1915-1916. The bulkhead building was connected to the Pier 33 bulkhead building when that structure was completed in 1919. In 1933 the pier was lengthened by 78 feet, an elevated passenger gallery was added to the interior, and the walls were largely rebuilt. New staircases were added to the interior in 1957. In 1981 major changes were made to the east aisle of the interior of the transit shed. These changes included the addition of new offices, waiting rooms, an escalator, and a staircase, and alterations to the mezzanine gallery. These additions and alterations occupy about half of the east aisle. The cornice was removed from the facade of the bulkhead building, also in 1981.

Substructure

The substructure of Pier 35, built in 1914, includes a bulkhead wharf (see Bulkhead Wharf Section 2 – Contributing Resource) that measures 607 feet in width by 45 feet in depth; and a substructure to the transit shed that measures 200 feet in width. This substructure originally was 817 feet long on the west side and 975 feet long on the east (the different lengths are due to the fact that the substructure meets the bulkhead wharf at an angle), but in 1933 the pier was lengthened by 78 feet, to its present length. Structurally, the entire substructure is made of reinforced concrete piles, caps, and deck.

Mooring bitts are mounted on the perimeter of the apron, and fender piles are attached to the outside edge. There are no rail spurs. From the available plans, it appears that the rail spurs of 1914 were removed when the pier was partially rebuilt in 1933. No known changes have occurred to the substructure since 1933.

In 1937, a connecting wharf and building were designed linking the bulkhead buildings of Pier 35 and Pier 37 (BSHC [1938]:51). This was demolished by 1973.

Transit Shed

The transit shed, built in 1915-1916, is made of wood, with wood walls, a wood roof, wood roof trusses, and wood posts that support the trusses. The roof rises to a gable over each of the three aisles of the shed, and the gable over the middle aisle rises to a monitor that runs continuously along the length of the shed.

According to *the Report of Board of State Harbor Commissioners* (1914-1916) the walls were originally covered with asbestos-treated metal for fire resistance. This covering was removed in 1933 when major changes were made to the transit shed.

The long (east and west) walls of the transit shed are divided into bays by roll-up metal doors with narrow sidelights. Bands of windows run across the tops of each wall. The original configuration of windows and doors can be found in the inner (southern) two-thirds of the elevation of the west wall. Here, the doors are higher and wider, the sidelights are placed higher, and the band of windows across the top runs almost continuously. The balance of the west wall, and all of the east wall, were rebuilt in 1933, when the pier was extended. Here the doors are smaller, the sidelights are placed lower, and the windows across the top are paired rather than continuous.

One bay in the west wall and two in the east wall rise to a second story. Each of these bays date to 1933 and features a steel roll-up door in the second story. The upper doors lead to elevated passenger galleries inside the shed, and were intended for the disembarkation of passengers from ships.

The rear (north) wall of the transit shed was rebuilt for the extension of 1933. Its roofline has three gables, with the middle gable higher than the outer ones. Roll-up metal doors can be found in the outer bays, and a wood-paneled door with upper lights is in the middle of the elevation. A sign reading “Pier 35” is made of wood and can be found in the upper level of the middle gable.

Two kinds of wood siding can be found on the transit shed walls. The original portion of the west wall, dating to 1915-1916, is clad in channel rustic siding, while the newer north wall and the rebuilt walls, all from 1933, are clad in v-groove siding.

All of the sidelights in the east and west walls have steel sash with six lights. Windows in the monitor and the upper level of the 1915-1916 and 1933 walls have wood frames and muntins. Those in the 1915-1916 wall are covered with a band of fiberglass. In the rear (north) wall, the lower windows are fixed, with wood frames and muntins, while the upper windows have replacement steel sash. All of the 1933 windows have plain wood casings and sills.

The rear (north) elevation, besides suffering the loss of its upper window sash, has been altered by the removal of its thin cornice molding and flagpole.

The 1933 reconstruction of the east wall and the northern third of the west wall resulted in the construction of an interior passenger gallery that runs along those walls at a mezzanine level. This elevated gallery has vertical wood siding and a wood floor and ceiling. It is supported by posts and beams of heavy timber, with diagonal bracing, and is open beneath. A transverse corridor crosses the shed, connecting the two galleries; it is supported by wood trusses.

In 1950, improvements were made to the second floor passenger waiting room for Matson Navigation Company. In 1957 a new galley opening was cut through the west side of the shed. In 1957, a new passenger galley ramp was built. In 1981, modifications were made to the exterior and interior for passenger terminal improvements.

Major changes were made to the eastern aisle in 1981. About half of this aisle was filled with new offices, waiting rooms, an escalator. Much of the mezzanine-level passenger gallery was also altered at this time, although much of it remains intact.

Bulkhead Building

The bulkhead building was built in 1915-1916. The front wall of the bulkhead building is a timber-framed structure and is clad with a coat of stucco. It features a monumental central pavilion with a gabled parapet that is flanked by flat-roofed wings, each two stories in height. To the west are four bays — one narrow and three wide — and to the east the arrangement is the same.

The detailing is classical. In the main pavilion, the monumental arch is lined with voussoirs topped by a keystone, and is flanked by monumental tapering piers. The cornice has been

removed. The gabled parapet rises to a flagpole. The stucco surface is lightly scored to resemble ashlar masonry. On the flanking bays, rusticated pilasters divide the facade into bays, which are also coated in scored stucco.

The monumental arch is filled with two roll-up steel doors bisected by a vertical steel beam, a broad transom bar covered in sheet metal, and windows formed by wood mullions. Windows are for the most part wood, with muntins covered by sheet metal; while six of the second-story windows have conventional steel sash. Large, rectangular portals with roll-up steel doors, originally built for rail spurs but apparently no longer used for that purpose after 1933, can be found in the third bay east and west of the central pavilion. Wood doors that are clad in sheet metal can be found in three of the bays. One of these is a set of paired doors with a wood transom.

Offices can be found inside the bulkhead building to the east and west of the arched entry. That to the west is two stories in height, with channel rustic siding, double-hung wood sash windows, and an exterior staircase of wood. It measures about 30 feet by 40 feet and has two main rooms. The office and storage structure to the east is two stories in height; is 125 feet in depth (extending into the transit shed); is irregular in appearance, with a variety of siding; and is largely open in the first story, though there are wooden rolling doors at two places. These structures are of uncertain date.

Also of uncertain date, but probably dating to 1916 or 1933, is a locker and change room with an adjacent toilet in the east side of the bulkhead building. The toilet has wood stalls and a circular terrazzo urinal that is 4 feet in diameter. These facilities have walls of vertical wood siding.

This bulkhead building was connected to the Pier 33 bulkhead building in 1919 when that structure was completed.

Construction History

Pier 35 was first proposed as one of a group of new piers on the northern waterfront in the biennium 1910-1912. At that time, plans were being prepared for

> seven additional piers, to be numbered from 29 to 41, and two new freight ferry slips, together with the connecting bulkhead-wharves and seawall, in the long neglected North Beach district, extending from Lombard street to Powell street. These are in a forward state of preparation and it is expected that contracts on the same will all be let within the next three months. The designs have already been approved, and introduce a new feature by inclining the piers at an angle to the seawall. Four of these intended for freighters, will be 200 feet wide, and three intended for passenger ships, will be 140 feet wide. (BSHC 1913:19)

The longest piers in the group would be angled in order to fit within the pierhead line distance of 800 feet. "All of the seven new piers to be located between Lombard and Powell streets, will be completed, it is estimated, by the end of 1914" (BSHC 1913:21). Work on those piers was undertaken in the following order (with the starting dates in parentheses): Pier 39 (1913), Pier 41 (1914), Pier 37 (1914), Pier 35 (1914), Pier 29 (1915), Pier 31 (1917), and Pier 33 (1917).

Each of these piers was provided with a Neoclassical facade, following the policy of the Board of State Harbor Commissioners for the northern waterfront announced in 1914 (BSHC 1914:45).

The Pier 35 substructure was designed with A. C. Griewank in charge under the supervision of Jerome Newman in drawings dated 20 April 1914. Designs for the shed, also designed by Griewank, were dated 29 July 1915. The bulkhead building was designed by A. A. Pyle and dated 9 August 1915. The completed project was described in the Biennial Report as follows:

> This pier is 200 feet wide, with an average length of 896 feet. The substructure is reinforced concrete piles, carrying a reinforced concrete deck covered with asphalt, except in the driveway, which is paved with wood blocks. The northerly one of the two tracks is depressed, the southerly one flush. The fender line is similar in construction to that on Pier 29.
>
> The construction of piers 35 and 29 presented some interesting problems in casting and driving reinforced concrete piles. The plans as originally prepared, called for 92-foot piles at the outer end, but before reaching this point, it was found that the unfavorable foundation required the use of longer piles and it was decided to substitute piles 106 feet long, 20 inches square and reinforced with eight one-inch bars. These very long and heavy piles, weighing 23 tons each,

> were successfully handled and driven and are believed to be the longest piles of this kind ever used.
>
> The shed is timber, 160 feet wide and 900 feet long, covered with asbestos-protected metal, which material was selected on account of its fire-resisting qualities, and is fitted with steel rolling doors. There is a bulkhead building in front of the shed, 33 feet deep and 316 feet long, constructed of timber covered with cement plaster.
>
> The contract for the pier included a section of reinforced concrete bulkhead wharf, 45 feet wide and 494 feet long, similar in type to that built at Pier 29.
>
> Pier 35 was completed in June, 1916. (BSHC 1916:35-36)

The same volume of the Biennial Report included several photographs of Pier 35 under construction and after it was completed, including a view of the completed interior on 8 January 1917.

In 1932-1933, Pier 35 was extended; “Plans for Additions and Betterments to Pier 35” prepared in charge of G. A. Wood, H. B. Fisher, and A. W. Nordwell under the supervision of Frank G. White, Chief Engineer, were dated 1932 and 1933. This work was described in the Biennial Report. The purpose was

> to provide improved passenger and cargo accommodations for the new steamships of the Grace Lines . . .
>
> In accordance with this program, Pier 35 was extended by the construction of an addition 78 feet in length and 200 feet in width. The substructure is of reinforced concrete on precast concrete piles and the shed is a timber structure. At the inshore end of the pier modern passenger accommodations were provided by the construction of a first floor lobby and baggage room and second floor waiting rooms and baggage inspection gallery. A reversible belt conveyor was installed for transferring baggage between the inspection gallery and the first floor and an elevator was provided for the use of passengers.
>
> The pier as extended has a length of 1,053 feet on the east side and 895 feet on the west side. As most of the passenger ships will berth on the east side, an elevated

> gallery was constructed extending from the waiting rooms to the outer end of the pier, across the end and back on the west side a distance of 324 feet. Two adjustable passenger aprons were installed and continuous windows extend the entire length of the gallery.
>
> To permit of transferring cargo to and from the between decks compartments of the ships, four adjustable cargo aprons and two fixed chutes were constructed. Incidental facilities provided consist of additional offices, commissary, linen and stationary rooms, etc. These facilities together with the waiting rooms and baggage rooms were constructed by the board's employees, the remainder of the work being done by contract.
>
> The last contract for the extension and additions to Pier 35 was completed and the work was finally accepted on November 20, 1933. (BSHC [1934]:13, 15)

The early occupants of Pier 35 are not known. By 1934, it had been modified for use by the Grace Lines for passenger service. From 1930 to 1960, it was occupied by Matson Navigation Company. In 1967 it was occupied by States Steamship Lines.

Pier 33

See also Section 2 of the bulkhead wharf (Contributing Resource).

Description

Summary

Pier 33 was designed in 1916 and was constructed in 1917-1919. It consists of a bulkhead wharf, a substructure to the transit shed, a transit shed, and a bulkhead building. The bulkhead building was designed to connect with the bulkhead building for Pier 35. Since the 1930s, several new doors have been inserted into the facade, a few windows have been altered, and the interior offices have been generally remodeled, but major changes have not occurred.

Substructure

The original substructure for Pier 33, built in 1917-1918, consists of a bulkhead wharf that measures 440 feet in width by 45 feet in depth; and a substructure beneath the transit shed that is 150 feet in width by about 800 feet in length.

The entire substructure is made of reinforced concrete piles, caps, and deck, with a surface of asphalt. The rail spur on the north apron is depressed relative to the deck, and that on the south apron is flush with the deck, but has been covered with asphalt and is barely visible. It is not known when the original concrete deck was covered in asphalt. However, a 1961 drawing for new doors in the transit sheds includes the requirement: "replace asphalt," showing that the asphalt was in place at that time. From a cursory inspection of engineering drawings at the Port of San Francisco, asphalt was commonly used to pave wharves and piers as early as 1908. Mooring bitts are mounted on all sides of the apron. There is also a narrow apron behind the 1927 addition to the bulkhead building to the north. A functional cast iron monitor is mounted to this apron. Its function is to accept bay water by hose connections from fireboats for emergency fire-fighting purposes.

Transit Shed

The transit shed, built in 1918-1919, has a timber frame and walls of reinforced concrete. On the exterior surface the long (north and south) walls have slightly projecting cornices, window sills, and bases, all of concrete. The gabled eastern wall at the end of the transit shed is restrained classical revival in style, with a cornice molding of many layers and a blank frieze at the top of the elevation. Wide piers divide the elevation into three bays. Segmental arched windows can be found in each bay.

The roof is wood and is supported by a structural system of wood trusses supported by wood posts. These posts divide the transit shed interior into three aisles. From the roof over the central aisle, eight monitors that are square in plan and made of wood rise at periodic intervals. Fire baffles made of vertical wood planks are attached to several of the roof trusses.

Windows in the concrete walls and in the monitors have steel sash with wire glass. The door openings onto the apron have roll-up steel doors. Four new doors were cut into the south wall of the transit shed in 1961.

Bulkhead Building

The bulkhead building was built in 1918-1919. The front wall of the bulkhead building is a timber-framed structure and is clad with a coat of stucco. It features a monumental central

pavilion with a gabled parapet that is flanked by flat-roofed wings, each two stories in height, to the north and south. To the north there are six bays — one narrow and five wide. To the south of the central pavilion are four bays — one narrow and three wide. At the north end Pier 33's bulkhead building meets Pier 35's; and at the south end Pier 33's bulkhead building has an elevation finished in a manner similar to the main facade.

The detailing is classical. In the main pavilion, the monumental arch is lined with voussoirs topped by a keystone, and is flanked by monumental tapering piers. The gabled parapet has a curved front and rises to a flagpole. The stucco surface is lightly scored to resemble ashlar masonry. On the flanking bays, rusticated pilasters divide the facade into bays, which are also coated in scored stucco.

In the monumental arch of the central pavilion, the roll-up metal door has been replaced by a chain-link fence. The corrugated metal curtain in the transom position, however, remains in place. Several doors for pedestrians, variously of wood or metal, have been inserted into the facade or have replaced old doors. Windows have wood sash and are divided into multiple lights by wood muntins. Those in the first story are fixed, with hopper transoms; while those in the second story are double-hung. All windows appear to be original, save in the south elevation, where two first-story windows have replacement aluminum sash.

Signage includes raised metal letters reading "Pier 33" above the monumental arch and "Pier 33 North" in the northernmost bays, and back-lit sheet-metal signs reading "Pier 33" and "Entrance" located lower on the facade.

In recent years a storefront has been inserted into the rail spur portal in the third bay south of the central pavilion. This storefront does not disturb the rusticated piers flanking this opening, nor the stucco molding above it.

Most offices in the bulkhead building appear to have been remodeled. In the northernmost bays, however, a staircase to the second floor remains intact. This staircase has wood treads, risers, newel posts, rails, pickets and siding. A shower for marine firemen, part of a 1922 remodeling,

also remains intact in the second story. The rear elevation of these two bays, with stucco surface, wood sash windows, and paired wood panel doors, also remains intact.

Construction History

Pier 33 was first proposed as one of a group of new piers on the northern waterfront in the biennium 1910-1912. At that time, plans were being prepared for

> seven additional piers, to be numbered from 29 to 41, and two new freight ferry slips, together with the connecting bulkhead-wharves and seawall, in the long neglected North Beach district, extending from Lombard street to Powell street. These are in a forward state of preparation and it is expected that contracts on the same will all be let within the next three months. The designs have already been approved, and introduce a new feature by inclining the piers at an angle to the seawall. Four of these intended for freighters, will be 200 feet wide, and three intended for passenger ships, will be 140 feet wide. (BSHC 1913:19)

The longest piers in the group would be angled to fit within the pierhead line distance of 800 feet. "All of the seven new piers to be located between Lombard and Powell streets, will be completed, it is estimated, by the end of 1914" (BSHC 1913:21). Work on those piers was undertaken in the following order (with the starting dates in parentheses): Pier 39 (1913), Pier 41 (1914), Pier 37 (1914), Pier 35 (1914), Pier 29 (1915), Pier 31 (1917), and Pier 33 (1917).

Each of these piers was provided with a Neo-classical facade, following the policy of the Board of State Harbor Commissioners for the northern waterfront announced in 1914 (BSHC 1914:45).

The Pier 33 substructure, dated 4 June 1917, was designed by G. A. Wood, in charge, under the supervision of Frank G. White, Chief Engineer. The contract for construction was awarded to Healy-Tibbitts Construction Company on 6 September 1917. The project was completed 6 February 1919 at a cost of $330,919.05 (BSHC 1921:99).

The shed and bulkhead buildings were designed by Oliver W. Jones on drawings dated 6 September 1918. The bulkhead building facade was designed by A. A. Pyle on drawings dated 6 September 1918. These plans provided for a bulkhead building that belonged only to Pier 33 and did not connect to other bulkhead buildings. Apparently the original plans were modified before

construction began to extend the bulkhead building northward to connect with the Pier 35 bulkhead building. The contract for construction of the Pier 33 shed and bulkhead wharf building was signed 27 December 1918. The work was completed 4 September 1919 by J.L. McLaughlin at a cost of $87,449.41. When it was completed, the Board of State Harbor Commissioners noted: "The bulkhead building connects with the one previously constructed in connection with Pier 35, making a continuous front 622 feet in length." (BSHC 1921: 40, 105).

When the project was nearly completed, the Biennial Report described it:

> This pier is 803 feet in length and 150 feet in width. Except for the fact that the entire structure is built on concrete piles, the construction is the same as Pier 31, with the same track arrangement, fender line and paving.
>
> The contract for Pier 33 included the construction of a section of reinforced concrete bulkhead wharf 45 feet in width and 440 feet in length. This connects the sections which were built in conjunction with Piers 31 and 35, and completes the permanent bulkhead wharf from the north side of Pier 27 at Lombard street to the north side of Pier 41 at Powell street. (BSHC 1919:35)

An innovative feature of both Pier 31 and Pier 33 was described as follows:

> An important feature of the sheds on Piers 31 and 33 and of all sheds of recent construction is the use of a series of separate monitors or pent houses on the center section of the roof, with windows on four sides. This construction permits the entrance of light from every direction, and the result is exceptionally well-lighted pier sheds. (BSHC 1921:40)

In 1922, alterations were made for firemen's quarters on the second floor of the bulkhead building. In 1961, new doors were cut into the southeast wall of the shed, creating almost continuous openings on that side.

An unusual event took place in 1926-1927 when the U.S. battleships *Colorado* and *New Mexico* docked at Pier 33: "The docking of the *Colorado* was the first instance of a vessel of this type being berthed alongside a pier in any port on the Pacific. During their stay, the wharf area was used by the personnel of the vessels for athletic sports and dancing." (BSHC [1928]:46).

The early occupants of the pier are unknown. In 1930, it was occupied by Furness-Withy Company, Ltd. In 1959, it was occupied by West Coast Terminals.

Pier 31

See also Section 3 of the bulkhead wharf (Contributing Resource).

Description

Summary

Pier 31 consists of a bulkhead wharf and a substructure for the transit shed, built in 1917; plus a transit shed and bulkhead building, built in 1918. The bulkhead building is exceptionally wide, and connects on its south end with the bulkhead building of Pier 29. Alterations to Pier 31 appear to have been minor.

Substructure

The substructure of Pier 31, built in 1917, consists of a bulkhead wharf that is roughly 330 feet wide and which varies in depth from 45 feet to 190 feet; and of a substructure to the transit shed which is 150 feet wide by 800 feet deep. Both of these structures are made of reinforced concrete piles, caps, and decks. The deck is paved with asphalt.

Rail spurs can be found on both the north and south aprons of the substructure. The rail spur on the north apron is depressed relative to the deck and passes through the monumental arch in the bulkhead building, while the rail spur on the south apron is flush with the deck, and passes through a portal six bays south of the monumental arch. A concrete barrier terminates the latter rail spur at its east end.

Mooring bitts are mounted on, and fender piles can be found attached to, all three sides of the apron around the transit shed. The apron behind the bulkhead building between Piers 29 and 31 has one mooring bitt and one mooring cleat.

Transit Shed

The transit shed, built in 1918, has a timber frame and walls of reinforced concrete. On the exterior surface the long (north and south) walls have slightly projecting cornices, window sills,

and bases, all of concrete. The gabled eastern wall at the outshore end of the transit shed is embellished with restrained classical details, with a cornice molding of many layers and a blank frieze at the top of the elevation. Wide piers divide the elevation into three bays. Segmental arched windows can be found in each bay, while three doors for pedestrians can be found beneath the windows. These doors are variously boarded over or filled in with concrete.

The roof is supported by a structural system of wood trusses supported by wood posts. These posts divide the transit shed interior into three aisles. From the roof over the central aisle, eight monitors that are square in plan and made of wood rise at periodic intervals. Fire baffles made of vertical wood planks are attached to several of the roof trusses. Painted wood signs reading "No Smoking" — one old and one from more recent decades — are suspended from two of the roof trusses.

Windows in the concrete walls and in the monitors have steel sash. The door openings onto the apron have roll-up steel doors. Three doors in the south wall of the transit shed have been enlarged.

Bulkhead Building

The bulkhead building, built in 1918, is timber-framed in construction and is clad with a coat of stucco. A long structure that links Piers 29 and 31, it features a monumental pier-entry pavilion with a gabled parapet at the head of each pier that is flanked by flat-roofed wings, each two stories in height, to the north and south. To the north there are eleven bays between the entry pavilions of the two piers, while to the south there are three bays. At the ends the building terminates in elevations two bays deep.

The detailing is classical. In the entry pavilions, monumental arches are lined with voussoirs topped by a keystone, and are flanked by monumental tapering piers. A course of dentils runs along the base of the gabled parapet, which has a curved front and rises to a flagpole. According to one source (Ver Planck 1998:20) these dentils were omitted in a 1980s reconstruction of the cornice. The stucco surface is lightly scored to resemble ashlar masonry. On the flanking bays, rusticated pilasters divide the facade into bays, which are also coated in scored stucco.

Roll-up metal doors fill the monumental arches in the entry pavilions. Two metal-clad wood doors for pedestrians, each located in the bays adjoining the entry pavilions, have lower panels and upper glazing. The door to the north of the north entry pavilion has a plywood replacement. Windows have wood sash and are divided into multiple lights by wood muntins. Those in the first story are fixed, with hopper transoms; those in the second stories are double-hung. All windows and doors appear to be original. That portion of the long bulkhead building in front of Pier 31 appears little altered. All of the ornamentation, windows, and doors remain intact. However, the bulkhead building has been altered in the modification of two bays for truck portals. The sixth bay south of the north entry pavilion originally had a large, rectangular portal through which a rail spur passed. This portal has been widened for trucking by removing the flanking rusticated pilasters. The bay to the south of this had windows set in wall openings; these have been removed and another truck portal was created in their place.

Offices occupy the interior space of the bulkhead building between the entry pavilions. These offices have outer walls (visible from within the bulkhead building) of flush wood siding, with double-hung wood sash windows. Behind these offices is a storage shed approximately 150 feet in depth. This shed (not to be confused with the transit shed on the pier substructure) was originally used to store cargo that awaited shipping. It has a roof of wood that is supported by wood trusses and wood posts. This roof rises to a monitor.

Signage includes raised metal letters reading “Pier 31” above the monumental arch; and a back-lit sheet-metal sign reading the same located lower on the facade.

Construction History

Pier 31 was first proposed as one of a group of new piers on the northern waterfront in the biennium 1910-1912. At that time, plans were being prepared for

> seven additional piers, to be numbered from 29 to 41, and two new freight ferry slips, together with the connecting bulkhead-wharves and seawall, in the long neglected North Beach district, extending from Lombard street to Powell street. These are in a forward state of preparation and it is expected that contracts on the same will all be let within the next three months. The designs have already been approved, and introduce a new feature by inclining the piers at an angle to the

> seawall. Four of these intended for freighters, will be 200 feet wide, and three intended for passenger ships, will be 140 feet wide. (BSHC 1913:19)

The longest piers in the group would be angled to fit within the pierhead line distance of 800 feet. "All of the seven new piers to be located between Lombard and Powell streets, will be completed, it is estimated, by the end of 1914" (BSHC 1913:21). Work on those piers was undertaken in the following order (with the starting dates in parentheses): Pier 39 (1913), Pier 41 (1914), Pier 37 (1914), Pier 35 (1914), Pier 29 (1915), Pier 31 (1917), and Pier 33 (1917).

Each of these piers was provided with a Neoclassical facade, following the policy of the Board of State Harbor Commissioners for the northern waterfront announced in 1914 (BSHC 1914:45).

Pier 31 was built in two phases, a substructure followed by a transit shed and bulkhead building at the same time. Plans dated 1 February 1917 for the substructure, including the pier and adjacent bulkhead wharf, were signed by G. A. Wood and B. G. Hill under the supervision of Frank G. White, Chief Engineer. A contract for this project was awarded 5 April 1917 to Healy-Tibbitts Construction Company for $305,836.82. The pier was described as follows:

> This pier is 150 feet in width and 800 feet in length. The type of construction is similar to that of Pier 29, adjoining it, the inner 590 feet being supported on reinforced concrete piles and the outer 210 feet on concrete cylinders which in turn have a foundation of timber piles. The deck of reinforced concrete and the fender line and pavement are the same as on Pier 3. There is a flush track on one side and a depressed track on the other.
>
> In conjunction with the pier there were constructed a section of bulkhead wharf 256 feet in length and 45 feet in width, and a wharf 150 feet in width and 245 feet in length connecting Piers 29 and 31. The bulkhead wharf and connecting wharf are also of reinforced concrete construction on concrete piles. (BSHC 1919:34)

A photograph of Piers 31 and 33 under construction appeared in the Biennial Report of 1916-1918.

A design dated February 1918 was prepared by A. A. Pyle under the supervision of Frank G. White, Chief Engineer, for the ornamented facade of a single bulkhead building linking Pier 29

and Pier 31. The bulkhead building and the transit shed for Pier 31 were designed by Oliver W. Jones on 7 February 1918. A contract for constructing this entire building was awarded 13 June 1918 to J. J. McHugh (BSHC 1919:104). A photograph of the completed structure appeared in the Biennial Report of 1918-1920.

An innovative feature of both Pier 31 and Pier 33 was described as follows:

> An important feature of the sheds on Piers 31 and 33 and of all sheds of recent construction is the use of a series of separate monitors or pent houses on the center section of the roof, with windows on four sides. This construction permits the entrance of light from every direction, and the result is exceptionally well-lighted pier sheds. (BSHC 1921:40)

After the China Mail Steamship Company in 1918, the occupants of the pier are unknown until 1935. Between 1935 and 1960, it was occupied by Luckenbach Gulf Steamship Company. In 1967, it was occupied by Matson Navigation Company.

In 1962, two bays at the center of the facade of the Pier 29-31 bulkhead buildings were altered. The northernmost of these bays, which was originally a large rectangular opening for a rail spur, was enlarged further, removing most of two flanking decorative pilasters. The wall, fenestration, and pilasters of the adjacent bay on the south were replaced by a similarly large rectangular opening.

Pier 29

See also Section 3 of the bulkhead wharf (Contributing Resource), Office Building (Pier 29) (Non-Contributing Resource), and Pier 27 Terminal (Non-Contributing Resource).

Description

Summary

Pier 29 was built in 1915-1918. The substructure was constructed beginning in 1915, the transit shed was built during 1917, and the bulkhead building was built in conjunction with Pier 31's bulkhead building in 1918.

At an unknown date the north apron was widened, and the depressed rail spur was made flush. In 1965, when Pier 27 was built, and the end of the new pier was joined to the end of Pier 29, several bays were removed from the south wall of Pier 29's transit shed, its substructure and transit shed were extended to the east, and the bay was filled on its south side.

Substructure

The original substructure of Pier 29, built in 1915-1916, includes a bulkhead wharf that is 608 feet wide by 45 feet deep, and a substructure beneath the transit shed that measures 161 feet wide by 800 feet long. In the 1960s, when Pier 29 was joined to Pier 27, the substructure was substantially increased in length, the north apron was widened, and the new wharf abutting Pier 29 on the south was provided with a substructure of fill.

The substructure is made principally of reinforced concrete piles, caps, and deck. The Report of Board of State Harbor Commissioners, states:

> The construction of piers 35 and 29 presented some interesting problems in casting and driving reinforced concrete piles. The plans as originally prepared, called for 92-foot piles at the outer end, but before reaching this point, it was found that the unfavorable foundation required the use of longer piles and it was decided to substitute piles 106 feet long, 20 inches square and reinforced with eight one-inch bars. These very long and heavy piles, weighing 23 tons each, were successfully handled and driven and are believed to be the longest piles of this kind ever used. (BSHC 1916:36)

Rail spurs were built on both the north and south aprons of the substructure. Those on the south apron are flush with the deck, have been paved over, and are barely visible. The rails on the north apron were depressed relative to the deck and were replaced with two sets of flush rails when that apron was widened. These rails have been about half covered with asphalt.

Mooring bitts are mounted onto the north and east aprons of the substructure. Fender piles can be found attached to the side of the north apron.

Transit Shed

The transit shed, built in 1917, has a steel frame and walls of reinforced concrete. On the exterior surface the long (north and south) walls have slightly projecting cornices, window sills, and bases, all of concrete. On the interior, the transit shed is divided into three aisles, with the roof over each aisle rising to a gable. Eight gabled monitors that are square in plan rise from the gabled roof over the central aisle at periodic intervals. The roof material is wood and is supported by a mixed structural system of wood and steel trusses. The transverse trusses are wood, and are supported by square wooden posts; while the longitudinal trusses are steel. Corrugated sheet metal fire baffles are attached to every third transverse roof truss. A painted wood sign reading "No Smoking" is suspended from one of the roof trusses. This interior strongly evokes the period of significance.

Windows in the concrete walls of the shed have steel sash, while those in the monitors are wood. The door openings onto the apron measure 16 feet in width by 18 feet in height and have roll-up steel doors. Three doors in the north wall and three in the south wall were enlarged, mostly in 1965, to 25 feet in width.

At about the same time, the east wall and several bays at the east end of the south wall were removed so that the transit shed would open into the new Pier 27, which intersects Pier 29. At the same time, Pier 29's transit shed was lengthened by approximately 75 feet to meet the end of Pier 27.

A photograph in the biennial report for 1918-1920 showed a series of giant cargo masts along the south side of the transit shed. These were part of one of a series of mechanized systems for handling cargo at the port (BSHC 1921:96). The cargo masts were removed at an unknown date.

Bulkhead Building

The bulkhead building, built in 1918, is timber-framed in construction and is clad with stucco. A long structure that links Piers 29 and 31, it features a monumental pier-entry pavilion with a gabled parapet at the head of each pier that is flanked by flat-roofed wings, each two stories in height, to the north and south. To the north there are eleven bays between the entry pavilions of

the two piers, while to the south there are three bays. At the ends the building terminates in elevations two bays deep.

The detailing is classical. In the entry pavilions, monumental arches are lined with voussoirs topped by a keystone, and are flanked by monumental tapering piers. A course of dentils runs along the base of the gabled parapet, which has a curved front and rises to a flagpole. According to one source (Ver Planck 1998:20) these dentils were omitted in a 1980s reconstruction of the cornice. The stucco surface is lightly scored to resemble ashlar masonry. On the flanking bays, rusticated pilasters divide the facade into bays, which are also coated in scored stucco.

Roll-up metal doors fill the monumental arches in the pier-entry pavilions. Two metal-clad wood doors for pedestrians, each located in the bays adjoining the pier-entry pavilions, have lower panels and upper glazing except the door to the north of the north entry pavilion, which is a plywood replacement. Windows have wood sash and are divided into multiple lights by wood muntins. Those in the first story are fixed, with hopper transoms; while those in the second stories are double-hung. In addition, two bays have been altered for truck portals. The sixth bay south of the north entry pavilion originally had a large, rectangular portal through which a rail spur passed. This portal has been widened for trucking by removing the flanking rusticated pilasters. The bay to the south of this had windows set in wall openings; these have been removed and another truck portal was created in their place.

Offices occupy the interior space of the bulkhead building between the entry pavilions. These offices have outer walls (visible from within the bulkhead building) of flush wood siding, with double-hung wood sash windows. Behind these offices is a storage shed approximately 150 feet in depth. This shed (not to be confused with the transit shed on the pier substructure) was originally used to store cargo that awaited shipping. It has a roof of wood that is supported by wood trusses and wood posts. This roof rises to a monitor.

Signage includes raised metal letters reading “Pier 31” above the monumental arch; and a back-lit sheet-metal sign reading the same located lower on the facade.

Construction History

Pier 29 was first proposed as one of a group of new piers on the northern waterfront in the biennium 1910-1912. At that time, plans were being prepared for

> seven additional piers, to be numbered from 29 to 41, and two new freight ferry slips, together with the connecting bulkhead-wharves and seawall, in the long neglected North Beach district, extending from Lombard street to Powell street. These are in a forward state of preparation and it is expected that contracts on the same will all be let within the next three months. The designs have already been approved, and introduce a new feature by inclining the piers at an angle to the seawall. Four of these intended for freighters, will be 200 feet wide, and three intended for passenger ships, will be 140 feet wide. (BSHC 1913:19)

The longest piers in the group would be angled in order to fit within the pierhead line distance of 800 feet. "All of the seven new piers to be located between Lombard and Powell streets, will be completed, it is estimated, by the end of 1914" (BSHC 1913:21). Work on those piers was undertaken in the following order (with the starting dates in parentheses): Pier 39 (1913), Pier 41 (1914), Pier 37 (1914), Pier 35 (1914), Pier 29 (1915), Pier 31 (1917), and Pier 33 (1917).

Each of these piers was provided with a Neoclassical facade, following the policy of the Board of State Harbor Commissioners for the northern waterfront announced in 1914 (BSHC 1914:45).

The substructure, transit shed, and bulkhead building for Pier 29 were all designed and built separately. The pier itself was designed on drawings dated 25 August 1915 under the supervision of Jerome Newman, Chief Engineer. Drawings were signed by L. Alden, G. A. Wood, and A. C. Griewank. The contract was awarded to Clinton Construction Company 18 November 1915 and the pier was completed 29 November 1916 at a cost of $293,493.96. The Biennial Report included a photograph of the pier under construction (BSHC 1916:25, 109). When complete, it was described as follows:

> This pier is 200 feet wide by 800 feet long. The inner 600 feet is supported on reinforced concrete piles, the outer 200 feet on account of the depth of mud, on concrete cylinders resting on timber piles. The deck is of the usual transverse girder, longitudinal beam and slab type, covered with asphalt, except in the

driveway, which is paved with wood blocks. There are two tracks, one on each side, the northerly one being depressed and the southerly one flush. The fender line is creosoted pile with untreated Oregon pine sheathing.

In addition to the pier, the contract included the construction of a section of reinforced concrete bulkhead wharf, 44 feet wide and 608 feet long, extending each side of the pier. (BSHC 1916:35)

Three months after the pier was completed on 1 February 1917, a contract was awarded to Clinton Construction Company for construction of a transit shed on Pier 29. The shed was completed 30 July 1917 at a cost of $109,440.62 (BSHC 1919:97-98). “This building is a combination timber and steel frame structure with concrete walls, steel rolling doors, and a corrugated iron roof. As constructed, it is 160 feet in width and 762 feet in length” (BSHC 1919:41). Photographs of the shed under construction and just after it was completed were published in the Biennial Report for 1916-1918 (BSHC 1919: between pages 50 and 51, 53, and 56). On the blank wall of the inshore end of the building were painted the words “China Mail S.S. Co. Ltd.” in English and Chinese.

A design dated February 1918 was prepared by A. A. Pyle under the supervision of Frank G. White, Chief Engineer, for the ornamented facade of a single bulkhead building linking Pier 29 and Pier 31. The bulkhead building and the transit shed for Pier 31 were designed by Oliver W. Jones (dated 7 February 1918). A contract for constructing this entire building together was awarded 13 June 1918 to J. J. McHugh (BSHC 1919:104). A photograph of the completed structure appeared in the Biennial Report of 1918-1920.

After the China Mail Steamship Company in 1918, the occupants of the pier are unknown. By 1935, it was occupied by the Luckenbach Gulf Steamship Company who remained until 1960.

In 1962, two bays at the center of the facade of the Pier 29-31 bulkhead buildings were altered. The northernmost of these bays, which was originally a large rectangular opening for a rail spur, was enlarged further, removing most of two flanking decorative pilasters. The wall, fenestration, and pilasters of the adjacent bay on the south were replaced by a similarly large rectangular opening.

In 1965, when Pier 27 (a Non-Contributing Resource) was built, and the end of the new pier was joined to the end of Pier 29, several bays were removed from the south wall of Pier 29's transit shed, its substructure and transit shed were extended to the east, and the bay was filled on its south side.

Pier 29 Annex (Belt Railroad Office Building)

See also Section 3 of the bulkhead wharf (Contributing Resource) and Section 7 of the bulkhead wharf (Contributing Resource).

Description

This small office building was built next to Pier 3 in 1909, turned ninety degrees and moved to its present location in 1918, and altered for its new use in 1919. Built of reinforced concrete, it is two stories in height and measures roughly 35 feet in width by 30 feet in depth. It has a hipped roof that is covered with Spanish clay tiles, overhanging eaves, and carved wooden rafter tails. The building is clad in stucco. Ornament includes overscaled wooden colonnettes that frame the second-story windows, brick diamond patterns between the first and second stories, inlaid green tile, and pointed arch window and door openings on the north and south sides of the first story. Windows are wood casements in the second story and have double-hung wood sash in the first story. The first story has some original interior features, including wood wainscoting, wood panel doors, and a terrazzo staircase. There is a rear addition of concrete built in 1914, according to port records. The design mixes elements of the Mission Revival and Prairie styles.

Construction History

The building now called Pier 29 Annex was built in 1909 as one of a pair of buildings on the bulkhead wharf near the inshore end of what was called the Washington Street Pier (Pier 3 was later built at or near this location). According to the Biennial Report, "on each side of the entrance [to the pier] office buildings have been constructed for the use of the concerns docking vessels there. These buildings are two stories in height. The lower floors provide waiting rooms for passengers, and are equipped with modern lavatories for men and women. The upper floors provide offices for the steamboat companies. These buildings are of reinforced concrete throughout and are sanitary and fireproof" (BSHC 1910:34). The buildings were designed under

the supervision of Nathaniel Ellery, State Engineer. The contract for construction was awarded to M. M. Finlayson and Herman R. Stettin, Jr. on 22 July 1909 for $16,600. The buildings were completed on 2 December 1909 for a total cost of $15,226.25. The two buildings are shown in a photograph of Pier 3 dated 25 April 1916 (Port of San Francisco n.d.:binder).

This building was built at a time before bulkhead buildings were provided at the inshore ends of piers, in large part to provide offices for the shipping companies that used those piers. When this building was built, small offices for shipping companies were commonly built on the bulkhead wharf. This building and its twin were unusual among freestanding bulkhead office buildings of the time in that they were built of permanent materials and were given a decorative architectural treatment. At its original location, this building served bay and river traffic.

As shown in a photograph dated 10 April 1919 (Port of San Francisco n.d.a:Binder):

> The two-story reinforced concrete office building formerly occupied by the California Transportation Company, near the foot of Washington street, was moved to the bulkhead wharf between Piers 27 and 29 and rearranged for use by the Belt Railroad. The superintendent's office, business office and record room are on the second floor, while the first floor is used for the dispatcher's office and locker rooms for the switching crews. The alterations in this building were completed in December, 1919. (BSHC 1921:41)

G. A. Wood was in charge of the move. The reason for the move is suggested by a plan approved on 2 May 1918 under the supervision of Frank G. White, Chief Engineer. In its new location, the building would be directly across the Embarcadero from the Belt Railroad's Round House complex. The twin to this building remained on its original site probably until construction began on Pier 1 in 1929. The twin is shown in a 1927 photograph of the waterfront from the top of the Southern Pacific Building (Olmsted 1998:104).

By 1983, the Belt Railroad had left this building, and it was serving as an office called Pier 29 Annex.

Pier 23 Restaurant

See also Section 4 of the bulkhead wharf (Contributing Resource).

Description

This is a one-story, rectangular, wood-framed restaurant building with a hipped roof. It was built in this location on the bulkhead wharf just north of Pier 23 in 1937. The front of the building is clad in flush wood siding and the rear is clad in v-groove siding. Windows have double-hung wood sash, plain board trim, and wood sills. The front door is metal-clad wood, with glazing. A cantilevered, round sheet metal neon sign reads "Pier 23." The style of the lettering and a three-banded motif at the edge of the sign are characteristic of the Streamlined Moderne style of the 1930s. The interior is finished in plaster. There is a wood frame addition at the north end of the building. The simplicity of this building and its finishes are characteristic of the working-class restaurants on the waterfront in the 1930s to 1950s.

Construction History

According to the Final Construction Report (White 1938), the Pier 23 Restaurant was built "on the Bulkhead Wharf between Pier 23 and 25, to be used as a Restaurant." It was described as a "one story frame building — 14' × 48'." It was not contracted out but was built by employees of the Board of State Harbor Commissioners between April and July 1937. Labor for the building cost $1,188.77 and materials cost $665.92 for a total of $1,854.69.

This restaurant was built at a time when restaurant life was flourishing on the waterfront. After the 1934 strike resulted in establishment of the hiring hall, waterfront workers gathered in restaurants like this in the morning instead of waiting for work at the shape up.

Pier 23

See also Section 4 of the bulkhead wharf (Contributing Resource).

Description

Summary

Pier 23 was constructed in 1931-1932, including the pier substructure, the transit shed, and the bulkhead building. The bulkhead wharf had been built previously in the 1920s. In 1961 a connecting structure consisting of a wharf and shed was constructed between Piers 19 and 23, linking the two bulkhead buildings into a continuous functioning space. This resulted in the obscuring of the south elevation of the Pier 23 bulkhead building, and in the removal of a portion of the south wall of the transit shed. In 1970 the north apron was widened, and the depressed rail spur on that apron was relocated and made flush with the deck.

Substructure

The bulkhead wharf was built in 1922 and measures 745 feet along the waterfront by 46 feet from the top to the toe of the seawall (BSHC 1921: 53). The substructure of the transit shed was built in 1931-1932 and measures roughly 150 feet in width by 800 feet in depth. It consists of wood pilings that are jacketed in concrete, reinforced concrete caps, and a reinforced concrete deck. In 1970 the north apron was widened by 10 feet, to a new width of 30 feet.

A flush rail spur can be found on the south apron of the transit shed; this spur passes through the connecting shed between Piers 19 and 23. The rail spur on the north apron was originally depressed relative to the deck, but in 1970, when the apron was widened, the rail spur was relocated and was made flush with the deck. This rail spur enters the pier through the central arch and passes through the bulkhead building to the north apron.

Mooring cleats can be found mounted onto the south apron, and mooring bitts are located on the widened north apron and on the east apron. Fender piles can be found attached to all three sides of the transit shed substructure.

Transit Shed

The transit shed, built in 1931-1932, has a steel frame and walls of pre-cast reinforced concrete. The long (north and south) sides are scored on the exterior and have inset panels on the interior. The rear (eastern) elevation is faintly Art Deco in style, with six profiled piers rising to peaks slightly above the roofline, and a gabled central pavilion.

The roof is wood and rests upon longitudinal and transverse steel trusses that are supported by steel I-beams. These rows of I-beams divide the transit shed interior into three aisles. The roof rises to a monitor that runs continuously along the full length of the transit shed. Windows in the walls of the shed and in the monitor have steel sash with wire glass. Most windows in the south wall have been covered with steel plates. Doors in all three walls of the shed are roll-up metal doors. Three of the doors in the south wall and four in the north wall were enlarged in 1970. Fire baffles of corrugated sheet metal are mounted on several of the transverse roof trusses.

In 1961, when a connecting shed was built between Piers 19 and 23, the westernmost 100 feet of the south wall of the transit shed in Pier 23 was removed. Seven of the roll-up metal doors were enlarged in 1970. These alterations are minor in the context of the surviving fabric.

Bulkhead Building

The bulkhead building at Pier 23, built in 1931-1932, is 160 feet wide by 33 feet deep. It is timber-framed in construction and is clad in stucco on the exterior. Detailing is classical. The composition is dominated by a broad central pavilion with a monumental arched entry, monumental piers that flank the arch, and a gabled parapet. This entrance is filled with a steel roll-up door. The central pavilion is flanked by two flat-roofed bays of unequal width to the north, and matching bays to the south. The north and south elevations of the bulkhead building are each one bay in width, and match the main elevation in materials and detailing. The south elevation remains intact, but was obscured in 1961 by the construction of the connecting shed between Piers 19 and 23. This elevation can be viewed from within the connecting shed.

Windows have steel sashes, with fixed lower lights and hopper upper lights. In three windows, some of the lights in the hopper have aluminum replacement sashes. Paneled wood doors for pedestrians can be found to the right and left of the monumental arched entry. The one to the left is clad in metal. The central arch is protected by cast iron wheel guards. Signage reading “Pier 23” can be found in raised metal letters over the arch. Lower on the facade are two back-lit sheet metal signs that read “pier 23” and “Entrance.” A flagpole tops the composition.

Within, modern offices fill the bulkhead building on the south side.

Pier 19-23 Bulkhead Connector

Designs for a new wharf and shed connecting Piers 19 and 23 were prepared in 1961 under the supervision of S.S. Gorman, Chief Engineer. The connecting shed is an extension of both Piers 19 and 23. Built after the period of significance, it is not part of the contributing resource. It is part of what contributing resource? 19 or 23?

Construction History

The earliest construction of what later became Pier 23 was a section of the reinforced concrete bulkhead wharf, shown under construction in a photograph in the Biennial Report of 1920-1922 (BSHC 1923:24). At that time, old wood Piers 21, 23, 25, and 27 were still standing along this section of the waterfront. Following completion of this wharf, a bulkhead building was designed from old Pier 23 to old Pier 25 in the biennium 1926 to 1928. Drawings dated 26 August 1926 were prepared by H. B. Fisher, in charge, under the supervision of Frank G. White, Chief Engineer. According to the Board of State Harbor Commissioners:

> Covered bulkhead wharf space is continually being used to greater advantage, and in order to provide additional space of this sort a bulkhead building was constructed extending from the north side of Pier 25 to the south side of Pier 23. The length is 402 feet, and in order to secure a width of 72 feet in the building between the piers, the bulkhead wharf was widened 38 feet. The wharf is timber construction on creosoted piles and the building is timber frame, the front being finished in cement plaster on metal lath. The wharf extension was completed on December 23, 1926, and the building on May 5, 1927. (BSHC [1928]:41)

Although the Biennial Report stated that this bulkhead building was built, it appears that it was demolished a few years later.

Within the biennium 1930-1932, after completion of the bulkhead building, Pier 23 was demolished and a new Pier 23 and bulkhead building were built. Plans for the new pier substructure, bulkhead building, and shed, dated 10 September 1931, were prepared by H. B. Fisher under the supervision of Frank G. White, Chief Engineer. The designs of both bulkhead buildings were identical except that the earlier building was extended to Pier 25.

> The construction of Pier 23 was a part of the program of the elimination of obsolete piers and their replacement with modern structures. The location selected for the new pier necessitated the removal of the old piers numbered 21 and 23, in order to provide sufficient width for the pier and the adjacent slips.
>
> Pier 23 as constructed is 150 feet in width and 800 feet in length. It is of reinforced concrete throughout, being supported on timber piles encased in precast concrete jackets, with a flat slab deck. There is a depressed railroad track on the north side and a flush track on the south side, both connecting with the Belt Railroad on the Embarcadero.
>
> The contract for the construction of the substructure of Pier 23 included the removal of the old pier, but a separate contract was awarded for the removal of Pier 21. Following the removal of these two piers our dredges pulled the old piles and concrete cylinders which remained and dredged the slips to a minimum depth of 32 feet at low tide. (BSHC [1932]:17)

The substructure was built by Healy-Tibbitts Construction Company at a cost of $344,116.91. Work began by Barrett & Hilp on the "shed and bulkhead building for Pier 23" on 5 October 1931. The work was completed 2 June 1932 at a cost of $93,119.24. A photograph of the completed building at the time showed no evidence of a longer bulkhead building extending to Pier 25 (BSHC [1932]:26, 77).

From 1933 to at least 1962, Pier 23 was operated by Pacific Oriental Terminal Company, Ltd.

Pier 19

See also Section 4 of the bulkhead wharf (Contributing Resource), Section 5 of the bulkhead wharf (Contributing Resource), and Pier 23 (Contributing Resource).

Description

Summary

Pier 19 was constructed in 1936-1938, except for the substructure of the bulkhead building, which was built in 1922. It is similar to Pier 9, which was built at the same time and to very nearly the same design. In 1961 the north facade of the bulkhead building was somewhat

obscured, and a portion of the north wall of the transit shed was removed, when a connecting shed between Piers 19 and 23 was constructed.

Substructure

The substructure of Pier 19 consists of a bulkhead wharf, built in 1922, and a substructure to the transit shed, built in 1936-1938. The former is 60 feet in depth at the pier and is made of reinforced concrete pilings, caps, and deck. The latter is composed of two structural types. The area directly beneath the transit shed is made of reinforced concrete piles, caps, and deck, while the apron is made of wood piles, caps, stringers, and deck, with an asphalt surface. When constructed, this structure measured 155 feet in width by 800 feet in length.

The rail spur on the south apron is flush with the deck, and that on the north apron is depressed relative to the deck. As the depressed rail spur approaches the Embarcadero it gradually rises in elevation, and passes into the connector shed between Piers 19 and 23.

Mooring bitts are mounted on the apron at the end of the pier, and mooring cleats can be found along the side aprons. Fender piles can be found mounted on the perimeter of the apron.

Transit Shed

The transit shed, built in 1936-1938, has a steel frame and pre-cast reinforced concrete walls that are scored on the exterior and have depressed panels on the inside surface. The rear (east) elevation is faintly Art Deco in style, with six profiled piers rising to peaks just slightly above the roofline and a gabled central pavilion. The roof is wood and rests upon longitudinal and transverse steel trusses that are supported by steel I-beams. These rows of I-beams divide the transit shed interior into three aisles. The roof rises to a monitor that runs continuously along the full length of the transit shed. Windows in the walls of the shed and in the monitor have steel sash. Most of the windows in the south wall have been covered with steel plates. Doors are roll-up metal doors that can be found in all three walls of the shed. Three of the doors, all in the south wall, have been enlarged. Fire baffles of corrugated sheet metal are mounted on several of the transverse roof trusses. One painted wood sign of unknown date reads “No Smoking Except in Posted Areas.”

In 1961 the western 80 feet of the north wall of the transit shed was removed to create an opening into the new connector shed between Piers 19 and 23. The new connector shed also obscured the north elevation of the bulkhead building.

In 1970, plans were prepared for the enlargement of door openings on the sides of the shed.

Chain-link fences partition the side aisles of the transit shed into numerous storage areas. Views of the steel roof trusses, the roof, the monitor, and side walls remain intact within the shed.

Bulkhead Building

The bulkhead building at Pier 19, built in 1936-1938, is timber-framed in construction and clad in stucco on the exterior. Detailing is classical. The composition is dominated by a broad central pavilion with a monumental arched entry, monumental piers that flank the arch, and a gabled parapet. This entrance is filled with a steel roll-up door. The central pavilion is flanked by two flat-roofed bays of unequal width to the north, and matching bays to the south. The north and south elevations of the bulkhead building are each one bay in width, and match the main elevation in materials and detailing. The north elevation remains intact, but has been obscured by the construction of the connecting shed between Piers 19 and 23. This elevation can be viewed from within the connecting shed.

Windows have steel sashes. Paneled wood doors for pedestrians can be found to the right and left of the monumental arched entry. The one to the right is clad in metal; one or both may be non-original. The central arch is protected by cast iron wheel guards. Signage reading “Pier 19” can be found in raised metal letters over the arch. A flagpole tops the composition.

Pier 19-23 Bulkhead Connector

Designs for a new wharf and shed connecting Piers 19 and 23 were prepared in 1961 under the supervision of S.S. Gorman, Chief Engineer. The connecting shed is an extension of both Piers 19 and 23. It is not a separate resource. Built after the period of significance, it is not part of the contributing resource.

Construction History

The earliest construction of what later became Pier 19 was a section of the reinforced concrete bulkhead wharf, shown under construction in a photograph in the Biennial Report of 1920-1922 (BSHC 1923:24).

Piers 9 and 19 were built to the same design at the same time. Plans for the substructures and transit sheds were prepared in charge of G. A. Wood under the supervision of Frank G. White, Chief Engineer.

> The two piers are identical in design and dimensions, except for minor differences at the inner ends. They are each 153 feet in width and 800 feet in length and the description which follows is applicable to both. The portion under the transit shed consists of a reinforced concrete deck supported on timber piles enclosed in precast reinforced concrete jackets. There is a railroad track on each side, one track being depressed, and both are connected with the State Belt Railroad in the Embarcadero. The track aprons consist of creosoted timber decks supported by creosoted piles. The entire substructure is paved with Topeka asphalt pavement.
>
> The transit shed is a steel frame structure with walls consisting of precast reinforced concrete slabs, steel sash glazed with wire glass, steel rolling doors and redwood roof sheathing with six ply built up roofing. The shed is wired for both light and power. (BSHC [1938]:51)

H. B. Fisher was in charge of preparing plans for the bulkhead buildings, under the supervision of Frank G. White.

Except for the substructures, the two piers were built under the same contract. The sheds were built by Barrett and Hilp beginning on 6 November 1936. They were completed on 25 April 1938 at a cost of $274,149.60. Contracts for steel rolling doors, paving and tracks, and electrical and water systems were also combined.

The Pier 19 substructure was built by Ben C. Gerwick, Inc. beginning on 3 October 1936. It was finished on 13 January 1938 at a cost of $408,783.89.

From 1939 to 1962, Pier 19 was operated by the Pacific Oriental Terminal Company.

Pier 17

See also Section 5 of the bulkhead wharf (Contributing Resource) and Pier 15-17 Quay (Non-Contributing Resource).

Description

Summary

Pier 17 and its adjacent bulkhead wharf were built in 1912. In accordance with the policy of a new board of harbor commissioners, this pier was built out of wood instead of fireproof materials, and no bulkhead building was constructed. It is one of two piers, along with Pier 36, that was built without an ornamental bulkhead front. In 1955-1956, Pier 17 and Pier 15 were widened on their south and north sides, respectively, and the area between them was filled — this area between Pier 17 and Pier 15, called Pier 15-17 "valley" by the Port's Engineers (including a connecting shed at the east end) is a Non-Contributing Resource that post dates the period of significance. In 1958 the west facade of Pier 17 was altered to approximately its current appearance.

Substructure

The bulkhead wharf in front of Pier 17 was built at the same time that the substructure of the pier was built — in 1912. It measures 324 feet in width by 60 feet in depth. According to the *Report of the Board of State Harbor Commissioners* (1910-1912), the bulkhead wharf is made of a reinforced concrete deck resting upon reinforced concrete piles that were driven through the old rock seawall.

The substructure to the transit shed is different from that of other piers on the San Francisco waterfront. According to the above-named report, the piles are timber encased in reinforced concrete cylinders, and the space between the timber and the concrete was filled with sand, except in the outer pilings, where the space was filled with cement grout. These piles are spanned by steel girders that are encased in concrete. Stringers and joists that span the girders are wood, and the deck of the pier is wood. The substructure measures 800 feet in length. Its width, before the widening of 1955-1956, was 126 feet.

A rail spur that is flush with the deck can be found along the north apron. Mooring bitts are mounted on the north and east sides of the apron, and fender piles are fastened to the perimeter of these sides of the apron. Unusually for the San Francisco waterfront, some of the fender piles rise to a height well above the level of the deck.

In 1948, repairs were made to the slab and beams of the bulkhead wharf. A new wharf connecting Piers 15 and 17 was planned in 1953, begun in 1955, and was shown under construction in a photograph dated 26 June 1956. Substructure repairs were made in 1961 and 1963. In 1972, wider ramps were built for access to the aprons.

Transit Shed

The transit shed, built in 1912, is made almost entirely of wood. The walls are stud-framed, and the gabled roof is made of wood planks. The roof is supported by elaborate trusses. Two longitudinal trusses run the entire length of the shed, and many transverse trusses span the width of the shed. In each truss, bottom and top chords are made of wood. Vertical posts are made of metal rods, and diagonal truss members are wood. All wood members are solid save for diagonal braces at the sides, which are composed of paired planks.

The roof rises in the center to form a monitor that runs continuously along the full length of the shed. A wood king post rises from each transverse truss to add strength to the structure of this monitor. Windows in the monitor have wood muntins and frames. In every third bay, a metal louvered vent can be found in place of a window.

The rear (east) facade of Pier 17 retains its original appearance. The facade is gabled, and rises in the center to the end of the monitor. The facade is clad in wood v-groove siding, save for some patching of channel rustic. A pair of sliding wood doors, with panels formed by heavy framing, open onto the apron. A sign reading “PIER NO. 17.” is formed of wood letters, and framed by wood boards, above this pair of doors.

The west facade, facing the Embarcadero, was originally almost identical to the east facade in appearance. The only difference was the presence of a door for pedestrians. An addition along the south side of the transit shed that may have been built around 1948 was altered with the

addition of a large window in 1951. At an unknown date (before 1958) windows were added to this facade. In 1957, a small restaurant space inside the southwest corner of the original transit shed was expanded. In 1958, the west facade was remodeled to approximately its current appearance. The "PIER NO. 17" sign was removed, the fenestration and trim were modified, and the exterior surface was covered with stucco. The wood sliding doors remained in place, and the door track was built out so the doors would clear the new coat of stucco. The original wood siding is still visible through the studs from the interior of the shed. Except for subsequent changes to the window and door sash, and to signage, the front of the building has not been altered since 1958.

The north wall of the transit shed is similar in materials and finish to the east facade. Siding is v-groove, and numerous pairs of wood sliding doors can be found in this wall. One pair of wood doors in this wall has been replaced by a metal roll-up door. In 1966, door openings on the north side were enlarged.

Offices were built into the southwest corner of the transit shed. This structure is clad in channel rustic siding, and windows are variously four-over-four wood sash, and wooden hopper windows. The first story interior has been largely altered, but the second story is essentially intact, save for the addition of partitions which divide the two original offices into four rooms. Walls, floors and ceilings are wood. Trim includes ceiling moldings, baseboards, and board window casings, all of wood.

In 1955-1956 Pier 17 and Pier 15 were each widened, to the south and north, respectively. When Pier 17 was widened, the entire south wall was removed and a new structure was built over the former south apron. This addition has wood framed walls and a shed roof which is supported by steel trusses and steel I-beams. Metal fire baffles are attached to some of the trusses. The front (west) wall is covered with stucco. A band of steel sash wire glass windows stretches across the front of this wall and in the new south wall. The south wall is also punctuated by many roll-up steel doors. A wood and steel canopy overhangs the loading dock on the south side of the addition. At an unknown date fixed wood sash windows were added to the west facade of the 1953 addition. In 1959, the monitor was altered. In 1976 and 1986, repairs were made to roof trusses.

Construction History

Pier 17 was one of five piers planned in the period covered by the Biennial Report of 1910-1912. Among those five, Pier 17 was built first, it is the only one lacking a bulkhead building, and it was the only one located north of the Ferry Building. The others, Piers 26, 28, 30, and 32, were built in a group south of the Ferry Building. Pier 17 was planned, designed, and largely if not completely constructed during the tenure of A.V. Saph as Assistant State Engineer. Pier 17 is the third oldest pier along the San Francisco waterfront. In appearance, it belongs to a generation of piers and transit sheds built before the era of the decorated bulkhead building.

The drawings for both the pier and the shed of Pier 17 were dated 1 November 1911. The engineer in charge is unknown apart from his initials, which appear to be "R.G.W.," but which may be "F.G.W." (Frank G. White was later the Assistant State Engineer). The contract for construction was awarded to Healy Tibbitts Construction Company at a cost of $263,400 on 15 January 1912 for completion within 200 days. Construction was well advanced on 31 July 1912 when a photograph showed a Healy Tibbitts Construction Company barge ("No. 7") floating alongside (Port of San Francisco n.d.:black album labeled "Photographs," n.p.).

At the time the contract was awarded, a newspaper article briefly described the options for its design: "Four types of wharf were submitted for bids and the type selected is a radical departure from the permanent, fireproof structures built by the former board. The piles on which the wharf rests will be encased in concrete cylinders, but both floor and shed will be of wood." (*San Francisco Call* 1912a). In the Biennial Report of 1912, when the pier was nearly complete, the Assistant State Engineer described the substructure:

> The type of substructure adopted for the deep mud existing in this section consists of timber piles protected by hollow reinforced concrete cylinders, the space between the pile and concrete shell being filled with sand. These concrete cylinders are 20 inches inside diameter and 3 inches thick and are made in such lengths as to extend 8 feet below the probable mud line as lowered by future dredging to elevation – 46 feet at the side of the pier. Similar cylinders have been used on bulkhead wharf construction on the waterfront before, but not in such lengths or in such an extensive installation as a pier. These concrete cylinders are made horizontally in one length and while cracks have frequently opened through

> handling in the yard and to the barge, this trouble can be avoided by the exercise of more care.
>
> The girders of the floor system are of steel fully protected by concrete and rigidly connected to the concrete cap over the pile. The joists and flooring are of wood, the upper layer of floor being cedar. (BSHC 1913:43)

In the Biennial Report of 1912-1914, it was reported that during the course of construction of Pier 17, cement was substituted for sand as grout between the concrete cylinders and the wood piles (p. 31).

As was often the case, the bulkhead wharf was built at the same time, along with modifications to the existing seawall:

> In the same contract is a length of 324 feet of bulkhead wharf and concrete seawall. This wall rests on timber piles driven through the old rock seawall, which has been in place twenty-eight years and is therefore well settled and compacted. The bulkhead wharf floor is of reinforced concrete resting on reinforced concrete piles driven through the old rock wall. (BSHC 1913:43)

A photograph of the concrete piles laying on the ground ready to be used in construction of the bulkhead wharf appeared in the Biennial Report of 1910-1912 (p. 21).

Records at the Port of San Francisco show a series of repairs, additions, and alterations to Pier 17 beginning after World War II.

The earliest known tenant of Pier 17 was the North Pacific Steamship Company, listed in the city directory in 1915. In 1920, the Richmond Navigation and Improvement Company was listed. In 1927, the tenants were Furness Withy & Company and “various coastwise and inland waterway lines.” (Board of Engineers for Rivers and Harbors 1927:73)

From 1930 to at least 1935, the tenants were Kingsley Navigation Company, operating between Los Angeles, San Francisco, and British Columbia; the South Coast Steamship Company; Hobbs, Wall & Company operated along the coast of California, Oregon, and Washington; and the Pioneer Line operated to Mare Island, Martinez, and Oakland.

In 1939, the Alameda Transportation Company and the Crowley Launch & Tugboat Company were here. In 1952, Piers 15 and 17 were both operated by the Waterman Company of California engaged in "receipt and shipment of general cargo in foreign and domestic trade." (Board of Engineers for Rivers and Harbors 1952:24) In the years 1959–1962, Piers 15 and 17 were operated by States Steamship Company, and Interocean, Moore-McCormick, and Italnavi lines also used the pier. In 2002, a sign at the front of Pier 17 identifies the occupant as America True Sailing Programs, including the America's Cup team.

A photograph dated 26 June 1956 showed a small freestanding wood structure with a sign advertising "Hot Meals" on the bulkhead wharf in front of Pier 17 (Port of San Francisco n.d.: envelope labeled Pier 15).

Pier 15

See also Section 5 of the bulkhead wharf (Contributing Resource), and Pier 15-17 Quay (Non-Contributing Resource).

Description

Summary

The substructure of Pier 15 was built in 1930-1931, and the transit shed and bulkhead building were completed in 1931. Plans were prepared in 1953 for consolidation of Piers 15 and 17 into the Pier 15-17 Quay-type Terminal (a Non-Contributing Resource). In 1955-1956, Pier 15 and Pier 17 were widened on their north and south sides, respectively and an area between 15 and 17, called Pier 15-17 "valley" by the Port's Engineers, (including a connecting shed at their east ends). Pier 15-17 quay is a Non-Contributing Resource that post dates the district period of significance.

Substructure

The substructure of Pier 15, built in 1930-1931, consists of a bulkhead wharf and a substructure to the transit shed. As originally built, the latter structure was 160 feet wide and 800 feet long. Both are made of reinforced concrete piles, caps, and deck. On the south apron, a flush rail spur has either been removed or is now covered by asphalt. This rail spur passed through an opening

in the rear (east) elevation of the bulkhead building and emerged through the latter's central pavilion to meet the Belt Railroad. Mooring bitts and mooring cleats are mounted on the south and east sides of the apron, and fender piles are fastened to the perimeter of the apron.

The north apron was removed in 1955 when Pier 15 was widened. A new concrete loading dock was constructed at that time on the north side of the pier. This dock is 3 feet higher than the driveway which is adjacent to the north.

Transit Shed

The transit shed, built in 1931, has a steel frame and walls of pre-cast reinforced concrete. The north and south walls are scored on the exterior surface and have inset panels on the inside surface. Although the north wall of Pier 15's transit shed dates from 1955-1956, twenty-two years after the south wall was built, the two match each other in materials and detailing. It is probable that the original north wall was dismantled and moved north to its new position in 1955-1956. The rear (east) elevation is faintly Art Deco in style, with six profiled piers rising to peaks just slightly above the roofline and a gabled central pavilion. The appearance of this elevation matches that shown in original plans of July 1931.

The roof is made of wood and rests upon longitudinal and transverse steel trusses that are supported by I-beams. Corrugated sheet metal fire baffles are attached to some of the transverse trusses. The roof rises to a central monitor that runs continuously along the length of the transit shed. In addition to the gabled monitor over the central aisle, and the lower, slightly sloping roofs over the two outer aisles, another aisle with a slightly sloping wooden roof was created in 1955-1956, when Pier 15 was widened to the north. The roof and supporting steel trusses are similar to the original structure of 1931. The main difference is that a narrow skylight was incorporated into the newer structure.

All windows in the three walls and the monitor are made with industrial steel sash and have wire glass. Doors are roll-up steel doors and can be found in all three walls of the transit shed. In the south wall, four of the seventeen doors were enlarged in 1968. When this was done, new roll-up doors similar to the old were installed. A painted wooden sign that reads "No Smoking" is

suspended from a roof truss. While of uncertain date, the style of the lettering suggests that it was built prior to World War II.

When the transit shed was widened in 1955-1956, a canopy was built onto the new north wall, overhanging the loading dock. This canopy has a wood roof and steel rafters.

Bulkhead Building

The bulkhead building at Pier 15, built in 1931, is timber framed in construction and clad in stucco on the exterior. Detailing is classical. The composition is dominated by a broad central pavilion with a monumental arched entry, monumental tapering piers that flank the arch, and a gabled parapet. The monumental pavilion is flanked by two flat-roofed bays to the north and two flat-roofed bays to the south. The north and south elevations of the bulkhead building are each one bay in width and have the same treatment used in the main (west) elevation.

The arched entry is filled with a roll-up steel door. Doors for pedestrians can be found in the base of the piers that flank the arch. These doors are made of wood and have lower panels and upper lights. Windows are made of steel sash, with twenty-five lights per window in the first story, and nine in the second story.

A sign reading “Pier 15” in raised metal letters can be found above the monumental central arch. Sheet metal signs with backlighting, reading “Pier 15” and “Entrance,” can be found over the two pedestrian doors in the monumental piers. These were installed in the mid-1930s. Wheel guards protect the sides of the arch. A flagpole rises from the gable of the building.

Two wood-frame office structures can be found within the space of the bulkhead building. The smaller structure is in the northwest corner of the bulkhead building. It is one story in height, has flush wooden siding, and has six-over-six wood sash windows. The date of construction is unknown, but it appears to date to about the time the pier was built. The other office structure is in the southwest corner of the bulkhead building. From the available plans, it appears to be a 1956 remodeling of an older structure for “Marine Department Offices.” It is two stories in height, has wood siding, plate glass windows in wood frames, hollow core doors, and an exterior steel staircase.

Construction History

Pier 15 was first proposed as part of a general program of replacing old piers in the biennium of 1928-1930.

> The program of replacement of the group of old and more or less obsolete piers now existing between the Ferry Building and Pier 29, was inaugurated by the awarding of a contract for the substructure of Pier 15 on May 14, 1930. The existing pier, which was constructed in 1915, originally carried coal bunkers along one side and on account of its insufficient width and its track arrangement, was unsuitable for use as a general cargo pier. It was 90 feet wide and the new structure was increased to 160 feet in width, the length remaining as before, 794 feet. As the creosoted piles in the old structure were in good condition, they were utilized as far as possible in the new pier. Both old and new piles are protected by reinforced concrete jackets and the deck is also of reinforced concrete. A railroad track is provided on each side of the pier, one track being depressed and one flush with the deck. (BSHC 1931:18)

At the time it was completed, it was described as follows:

> The transit shed on Pier 15 is a steel-frame structure, the side walls being of precast reinforced concrete slabs and the bulkhead building and outer end of cast in place concrete. It has steel rolling doors and galvanized steel sash with wired glass. The building is 823 feet in length and 123 feet in width. A passenger waiting room and steamship offices are provided in the bulkhead building. (BSHC [1932]:23)

The substructure was built by Healy-Tibbitts Construction Company between 20 May 1930 and 30 April 1931 at a cost of $328,600.34. The shed and bulkhead building were designed in plans dated 19 February 1931 with H. B. Fisher in charge, under the supervision of Frank G. White, Chief Engineer (BSHC [1932]:76). They were built by E. T. Lesure between 25 April 1931 and 3 December 1931 at a cost of $101,568,70.

From 1933 to 1939, Pier 15 was operated by Sudden and Christenson. In 1952, it was operated by Waterman Corporation of California. After it was joined to Pier 17, it was operated by States Steamship Company in 1962.

Pier 9

See also Section 6 of the bulkhead wharf (Contributing Resource).

Description

Summary

Pier 9 was constructed during 1917 and 1936-1938. The substructure of the bulkhead building, the bulkhead wharf, was built in 1917 (according to plans). The substructure of the transit shed, the transit shed, and the bulkhead building were built in 1936-1938. The pier is nearly identical with Pier 19, which was built at the same time and to nearly the same design.

Substructure

Plans for the bulkhead wharf at Pier 9 were approved in January 1917, and the wharf was built during that year. It consists of reinforced concrete piles, caps, and deck, and measures 233 feet in length by 44 feet in width. The rest of the substructure of Pier 9 was built in 1936-1938 and is of two structural types. The area beneath the transit shed is made of reinforced concrete piles, caps, and deck, while the apron is made of wood piles, caps, stringers, and deck, with an asphalt surface. When constructed, this structure measured 800 feet in length by 155 feet in width. Undated plans indicate that the pier was later lengthened by 198 feet.

The rail spur on the south apron is flush with the deck; and although they are now covered with asphalt, the outline of the rails remain visible. The rail spur on the north apron was depressed relative to the deck, but at an unknown date a new rail spur was built over the original, bringing it flush with the deck. The old rail spur still exists beneath the new one, and the new one has been covered with asphalt, although its outline is still visible.

Mooring bitts are mounted on the apron at the end of the pier, and mooring cleats can be found along the side aprons. Fender piles can be found mounted on the perimeter of the apron.

Transit Shed

The transit shed, built in 1936-1938, has a steel frame and reinforced concrete walls that are scored on the exterior and have depressed panels on the inside surface. For most of their length, the long (north and south) walls are made of pre-cast concrete panels that were lifted onto the

frame with cranes. The bays nearest the Embarcadero, however, are made of concrete that was poured in place. These bays were scored and sanded in order to appear identical with the pre-cast bays.

The rear (east) elevation is faintly Art Deco in style, with six profiled piers rising to peaks just slightly above the roofline and a gabled central pavilion that rises to a flagpole. The appearance of this elevation matches that shown in original plans of 1936. The roof is wood and rests upon longitudinal and transverse steel trusses that are supported by steel I-beams on concrete footings. These rows of I-beams divide the transit shed interior into three aisles. The roof rises to a monitor that runs continuously for the full length of the transit shed. Windows in the walls of the shed and in the monitor have steel sash and wire glass. Doors are roll-up metal doors that can be found in all three walls of the shed. Two of the doors, both in the south wall, were greatly enlarged in 1970. Fire baffles of corrugated sheet metal are mounted on several of the transverse roof trusses.

Much of the interior of the transit shed has been filled for offices. The areas filled in include the east end of the pier, about half of the south aisle, and most of the north aisle. The center aisle (except at the end) remains open, affording a view of the roof, monitor, and roof trusses.

Bulkhead Building

The bulkhead building at Pier 9, built in 1936-1938, is timber-framed in construction and clad in stucco on the exterior. Detailing is classical. The composition is dominated by a broad central pavilion with a monumental arched entry, monumental piers that flank the arch, and a gabled parapet. This entrance is filled with replacement steel and glass windows and doors. The monumental pavilion is flanked by two flat-roofed bays of unequal width to the north, and matching bays to the south. The north and south elevations of the bulkhead building are each one bay in width, and match the main elevation in materials and detailing.

Windows have steel sashes, and there are two pairs of wood doors with bottom panels and upper lights. The central arch is protected by cast iron wheel guards. Signage reading “Pier 9” can be found in raised metal letters over the arch. A flagpole tops the composition.

Construction History

Piers 9 and 19 were built to the same design at the same time. Plans for the substructures and transit sheds were prepared with G. A. Wood in charge, under the supervision of Frank G. White, Chief Engineer.

> The two piers are identical in design and dimensions, except for minor differences at the inner ends. They are each 153 feet in width and 800 feet in length and the description which follows is applicable to both. The portion under the transit shed consists of a reinforced concrete deck supported on timber piles enclosed in precast reinforced concrete jackets. There is a railroad track on each side, one track being depressed, and both are connected with the State Belt Railroad in the Embarcadero. The track aprons consist of creosoted timber decks supported by creosoted piles. The entire substructure is paved with Topeka asphalt pavement.
>
> The transit shed is a steel frame structure with walls consisting of precast reinforced concrete slabs, steel sash glazed with wire glass, steel rolling doors and redwood roof sheathing with six ply built up roofing. The shed is wired for both light and power. (BSHC [1938]:51)

Plans for the bulkhead buildings were prepared by H. B. Fisher, in charge, under the supervision of Frank G. White.

Except for the substructures, the two piers were built under the same contracts. The sheds were built by Barrett and Hilp beginning on 6 November 1936. They were completed on 25 April 1938 at a cost of $274,149.60. Contracts for steel rolling doors, paving and tracks, and electrical and water systems were also together. (BSHC [1938]:99)

The Pier 9 substructure was built by A. W. Kitchen between 17 October 1936 and 13 January 1938 at a cost of $408,783.89.

In 1970 plans were prepared for enlargement of two door openings in the shed.

In 1939, Pier 9 was occupied by “various steamship lines” (Board of Engineers for Rivers and Harbors 1939:36). In 1959, it was operated by Marine Terminals Corporation.

Pier 5

See also Section 7 of the bulkhead wharf (Contributing Resource) and Section 6 of the bulkhead wharf (Contributing Resource).

Description

Summary

Pier 5's transit shed, and the substructure beneath the transit shed, have been removed, leaving only the bulkhead building and the bulkhead wharf beneath it. The wharf was built in 1919-1920, and the bulkhead building was built in 1921-1922. Pier 5 was listed on the National Register in 2002 as part of the Central Embarcadero Piers Historic District. Pier 5 was rehabilitated and seismically upgraded as part of a federal tax credit project for the Central Embarcadero Piers Historic District in 2004-06.

Substructure

The bulkhead wharf beneath the Pier 5 bulkhead building, built in 1919-1920, is about 313 feet long by widths ranging from 33 to 49 feet. It is made of reinforced concrete piles upon which rest reinforced concrete caps and a reinforced concrete deck. The several rows of piles closest to the sidewalk are imbedded in the rock fill of the seawall.

Bulkhead Building

The bulkhead building at Pier 5, built in 1921-1922, is timber-framed in construction and clad in stucco on the exterior. Detailing is classical. The composition is dominated by a broad central pavilion with a monumental arched entry, monumental tapering piers that flank the arch, and a gabled parapet. This entrance is filled with replacement steel and glass windows and doors. The monumental pavilion is flanked by two flat-roofed bays to the north and two flat-roofed bays to the south. The southernmost of these bays has a segmental arch opening which was intended for a rail spur. In the other three bays the first-story windows have fixed wood sash with hopper transoms. All second-story windows have double-hung wood sashes. Paired wood doors for pedestrians have upper glazing and lower panels. Wheel guards protect both the monumental arched entry and the segmental arched entry. Sheet metal signs with back lighting, dating to the

mid-1930s, can be found at the base of the monumental arch. A flagpole rises from the parapet of the central pavilion.

The north and south elevations are one bay in depth and match the bays facing the Embarcadero in materials and detailing.

The center of the offshore end of the bulkhead building, which previously opened into the transit shed, has been provided with a new wall of stucco and aluminum frame windows.

Interior offices have been generally remodeled. The only surviving interior space is a staircase just north of the monumental arched entry. This staircase has wood treads, risers, newel posts, pickets, and walls.

Construction History

The structure now called Pier 5 is located at the foot of Pacific Avenue. A wood pier built at this site in 1895 (BSHC [1938]:55) was called Pier 7 until about 1915 when it was renamed Pier 5. This structure measured 600 by 100 feet; it included a substructure and a shed that was 20 feet high at the eaves. (Another structure called Pier 5 was located at the foot of Jackson Street where Pier 3 was later built; this pier measured 799 by 110 feet.) In October 1919, plans were prepared for a depressed rail spur on the south side of the pier. This spur, which ran about half way to the end of the pier, was built on a widened apron.

Improvements on Pier 5 were begun with the design of the bulkhead wharf, dated 11 September 1919, by A. W. Nordwell under the supervision of Frank G. White, Chief Engineer. Plans of the bulkhead building, dated 17 July 1920, were prepared by A. D. Janssen under Frank G. White. The bulkhead building was built by Hannah Brothers, contractors, between 24 October 1921 and 15 June 1922 at a cost of $30,844.93. When completed it was described in the Biennial Report.

> This improvement includes a new front on existing Pier 5 and two story bulkhead buildings extending northerly and southerly from the pier. The total length is 313 feet; the southerly portion including the pier front is 164 feet in length by 33 feet in width, and the northerly portion is 149 feet in length by 49 feet in width. (BSHC 1923:33)

A photograph at the time of completion included a partial view of the wood transit shed behind the bulkhead building (BSHC 1923:26).

Around the same time, in October 1919, plans were prepared for a depressed rail spur on the south side of the pier. This spur, which ran about half way to the end of the pier, was built on a widened apron. The shape of the pier with its widened rail apron was visible on maps through the 1949 Sanborn map.

Pier 5 was proposed as part of a general program of replacing old wood piers in the biennium of 1928-1930: "The program of replacement of the group of old and more or less obsolete piers now existing between the Ferry Building and Pier 29, was inaugurated by the awarding of a contract for the substructure of Pier 15 on May 14, 1930" (BSHC 1931:18).

However, at Pier 5 no concrete pier was ever built. The existing wood pier was demolished sometime between 1990 and 1992 (Turnbull 2002:Section 7, page 16) because it was in poor condition. The presence of the Pier 5 bulkhead building without a pier behind it is a reminder of the process of construction at the port.

The earliest known users of Pier 5 were "various coastwise and inland waterways lines" (Board of Engineers for Rivers and Harbors 1927:75). In 1930, it was occupied by Bay Cities Transportation Company and Erikson Navigation Company. In 1959, there were no tenants.

Pier 5 is part of the Central Embarcadero Piers Historic District, with Piers 1, 1½, 3, and 5 which was listed on the National Register 20 November 2002. In 2004 – 06 Pier 5 was rehabilitated and seismically upgraded as part of a federal tax credit project for the Central Embarcadero Piers Historic District.

Pier 3 (including Pier 1½)

See also Section 7 of the bulkhead wharf (Contributing Resource).

Description

Summary

Pier 3, including Pier 1½, was built in 1917-1919 as a single project, for use by riverboats connecting San Francisco with points on the Sacramento and San Joaquin rivers. Pier 1½ was built as a passenger terminal, and Pier 3 was used for freight. Originally both piers were referred to as "Pier 3," but currently a separate designation of "Pier 1½" is applied to the shorter of the two piers.

The substructure of Pier 1½ and Pier 3 was built in 1917-1918, and the passenger terminal, transit shed, and bulkhead building followed in 1918-1919. Most of the transit shed on Pier 3 was removed in 1976, but the substructure, passenger terminal, and bulkhead building survive. Pier 3 (including Pier 1½) was listed on the National Register in 2002 as part of the Central Embarcadero Piers Historic District. Pier 3 is currently undergoing rehabilitation and seismic upgrade as part of a federal tax credit project for the Central Embarcadero Piers Historic District.

Substructure

The substructure of Pier 3 as a whole, built in 1917-1918, consists of a bulkhead wharf 423 feet in width and 45 feet in depth; a substructure to the passenger pier (Pier 1½) that is 67 feet wide by 99 feet deep; and a substructure to the transit shed that is 138 feet wide by 706 feet deep. The substructure is made of reinforced concrete piles, reinforced concrete caps, and a reinforced concrete deck.

At Pier 3, fender piles are attached to the side of the substructure, and mooring cleats are mounted on the deck. Mooring bollards rest at the end of the deck; they are not fastened to it, and may have been repositioned. Most of the Pier 3 deck is now used as a parking lot. The surface is asphalt, the rail spur that once existed on the north apron been removed, and modern light standards have been erected. An iron gate from the rail spur portal has also been removed.

In 1958, plans were prepared for repairs to the concrete deck of the pier.

Transit Shed — Pier 3

The transit shed was built in 1918-1919. In 1969, a sketch plan showed the two sides of the transit shed on either side of the central driveway to be partitioned into numerous spaces for rental to different companies. In 1976 most of the transit shed was removed from the deck of the main pier. The eastern 600 feet of the pier was removed, leaving 99 feet of the original transit shed in place. This fragment has wooden walls and a wooden roof that is supported by wood trusses and wooden posts. In its center the roof rises to a monitor. Windows in both the walls and monitor are fixed, with wooden frames and muntins. The glass in the monitor is wire glass.

Waiting Room — Pier 1½

The waiting room at Pier 1½, built in 1918-1919, is located over the pier substructure, and is separated from the bulkhead building by a covered breezeway. The waiting room is constructed of wood and is coated in stucco, with classical detailing, on the exterior. The interior walls are finished in plaster which is scored to resemble masonry. Paneled wainscotting can be found on these walls to a height of 2 feet, 10 inches. Wood cornice moldings run around the perimeter of the waiting room, wrapping around occasional pilasters. The ceiling is wood, with coffers formed by heavy, chamfered wood beams. These beams are structural, and are supported by intersecting wood trusses. The door opening to the breezeway is classically molded, and large classical consoles, or brackets, are mounted in the opening. All doors are paneled oak, some paired, and some with glazing. There are also paired sliding wood doors, for baggage, between the waiting room and the breezeway.

In sum, there is a high degree of classical finish in the waiting room. In recent decades modern partitions and carpeting have been added. The modern partitions have been badly damaged by vandalism, but the original materials and detailing appear to remain in good condition.

The breezeway behind Pier 1½ has a cement floor, a wooden roof laid over heavy timber beams, and open sides.

Bulkhead Building

The bulkhead building for all of Pier 3, built in 1918-1919, is timber-framed in construction and clad in stucco on the exterior. Detailing is classical. The composition is dominated by a broad

central pavilion with a monumental arched entry, monumental tapering piers that flank the arch, and a gabled parapet. This entrance has roll-up metal doors surmounted by windows with heavy wood mullions within the arch of the entry. The monumental pavilion is flanked by four flat-roofed bays to the north and six flat-roofed bays to the south. Within these bays are two other openings with segmental arches, one of which was intended for a rail spur. In one of these openings a decorative iron gate remains in place; in the other, the gate has been removed but remains on the premises. In three bays the first-story windows fit within segmental arched openings. These windows have carved wooden mullions and transom bars. All other windows have wood sashes. Those in the first story are fixed, with hopper transoms, and those in the second story are double hung. Doors for pedestrians are wood that is metal-clad, with upper glazing and lower panels. Three of these four doors are paired.

The interior spaces in the bulkhead building retain much of their original finish. In the southern bays, opposite the passenger waiting rooms, one can find lobby and ticketing offices. From the Embarcadero one passes through a shallow vestibule of carved oak into the lobby. The walls of the lobby are scored plaster with wood-paneled wainscotting. The ceiling is barrel vaulted with layered moldings. The floor is terrazzo with a marble border. Passage from this lobby to the breezeway is via paired oak doors, with glazing. These doors are enframed by sidelights, carved pilasters, a transom surmounted by a frieze, and a larger transom that spans the entire composition; all executed in oak. From the lobby one can also pass through a wood paneled door to a wooden ticket-selling counter, beyond which is an office with wood wainscotting, plaster walls, a spiral iron staircase to a mezzanine level, and a wooden balcony at this level overlooking the first story. South of the lobby are staff offices with a similar finish.

From the lobby there is still another doorway, this one to second-story offices. These offices are reached via a short terrazzo staircase, a wood door, and a longer wood staircase. Offices on the second story have two types of finish. The more formal offices have plaster walls with wood wainscotting, plaster moldings, and plaster ceiling. North of these offices are less formal ones with wood walls, floors, and ceilings. The largest of these offices measures roughly 60 feet wide by 18 feet deep, and has four original light fixtures, two with surviving globes. At the north end of the Pier 3 bulkhead building is another staircase, one with wood treads, risers, railings,

pickets, newel posts, and wainscotting, with plaster walls above the wainscotting and glazing at the top of the staircase.

In 1959, the heating system in the bulkhead building and the passenger waiting room was replaced.

Construction History

Pier 3 is unique among San Francisco's piers. Whereas other piers typically consisted of a single projecting pier, Pier 3 consisted of two projections on twin piers — a main pier (called Pier 3) and a short "passenger landing pier" (now called Pier 1½). The twin piers and a bulkhead wharf were built under one contract, followed shortly afterwards by a second contract for construction of a long bulkhead building, a transit shed on the main pier, and a waiting room on the passenger landing pier.

The reason for this arrangement was to eliminate congestion at a facility whose tenants would be two companies that carried almost all of the passenger (California Navigation and Improvement Company) and freight (California Transportation Company) traffic between San Francisco and inland river ports. Passengers would get on and off ships from a passenger gallery along the south side of the transit shed on the main pier (Pier 3). A stairway led down to the street level near the front of the pier, from which passengers walked through the bulkhead building to The Embarcadero or walked south behind the bulkhead building to the waiting room (Pier 1½). According to the *San Francisco Chronicle* (2 August 1918), this arrangement "would eliminate congestion and make it possible for passengers to reach steamers without passing between teams and freight." The complex was "planned by Chief Engineer Frank G. White of the Harbor Board after conference with Captain Alfred Anderson, president of the California Transportation Company."

Plans for Pier 3 were first announced in the Biennial Report of 1914-1916, along with Piers 1, 31, 33, and 46. By mid-1916, the plans for the twin piers and the bulkhead wharf were "50 percent completed" and the plans for the bulkhead building were "30 percent completed." Plans for the Pier 3 substructure (Pier 3 and Pier 1½) prepared by A. C. Griewank, S. E. Evans and F. E. Ballou, were dated 10 November 1916. The bulkhead wharf was built in 1917-1918. Plans

for the bulkhead building, waiting room, and transit shed were all approved 15 November 1917. The bulkhead building plans were signed by A. Pyle and others (illegible). The transit shed and waiting room plans were signed by A. C. Griewank and Bun-Bearwald-Froberg. All the plans were prepared under the supervision of Frank G. White, Chief Engineer. The piers and bulkhead wharf were completed in March 1918. By mid-1918, the buildings on the piers were 40 percent completed.

In August 1918, the Board of State Harbor Commissioners ordered a rush to complete Pier 3 because of increased river traffic and congestion on the waterfront. The completion of Pier 3, described in the *San Francisco Chronicle* (21 August 1918) as "the biggest and most modern terminal for passenger and freight traffic on the Pacific Coast" and as a "gigantic terminal," would help alleviate the congestion. Three weeks later on 11 September 1918, the *San Francisco Examiner* reported that completion of Pier 3 would be delayed because of U.S. government wartime restrictions on the availability of paving materials. In seeking a permit to obtain the materials, the article reported that "The board has taken the position that the docks and piers and the harbor facilities generally are essential to the winning of the war, in that a vast amount of war material comes over the wharves of the port. It was pointed out by the board that the development of these facilities would contribute to more rapid movement of cargo, much of which was required in war work."

The Biennial Report of 1918-1920 reported that Pier 3 was completed on 9 January 1919 (BSHC 1921: 100) and included photographs of the bulkhead building from the Embarcadero and of the passenger waiting room (Pier 1½) and the main transit shed (Pier 3) from the waterside.

Pier 3 was designed and built for the inland river trade and specifically for a particular tenant — or pair of related tenants —the California Transportation Company and the California Navigation and Improvement Company. These companies dominated the inland river business in freight and passengers, respectively, for many years. The California Transportation Company was founded in 1875 with Captain A. Nelson, president and Captain N. E. Anderson, secretary, to serve inland river ports. The original stockholders were farmers in the Sacramento Valley whose prosperity depended on an efficient means of getting their products to San Francisco markets. The

California Navigation and Improvement Company made overnight trips between San Francisco and the major inland ports of Stockton and Sacramento.

Listings in the 1920 San Francisco City Directory showed that these companies were joined by other companies — Sacramento River Steamers, Sacramento Transportation Company, and Stockton Steamers at Pier 3. Pier 3 was operated by the California Transportation Company until 1939. In 1927 and 1933, the passenger landing pier (Pier 1½) was no longer operated by a private company, but was run by the Board of State Harbor Commissioners. In 1939, the River Lines also regularly used the terminal and, for the fist time, the passenger landing pier was listed as "Pier 1½". In 1951, Pier 3 was occupied by the River Lines, Berkeley Transportation Company, the Petaluma and Santa Rosa Railroad, and "several trucking companies." In 1953 and 1962, it was operated by the River Lines and Berkeley Transportation and was also used by Bay City Transportation, A. Paladini, and others.

A plan of Pier 3 in 1969 showed 16 tenants in the transit shed, 11 tenants and one vacant office in the bulkhead building, and two tenants in the subdivided passenger waiting room. Many of the tenants appear to have occupied space as offices or for warehouses. A few had ties to the old river transportation use of the pier, such as Bay & River Navigation Company, MacNichol & Company Transportation, and A. Paladini (produce). A few others had maritime uses, such as Podesta Divers, Ship Clerks Association, American Merchant Marine Library, and Coast Marine & Industrial Supply.

Today, the open deck of the pier is used for parking, and the bulkhead building and passenger waiting room are empty.

Pier 3 (including Pier 1½) is part of the Central Embarcadero Piers Historic District, with Piers 1, 1½, 3, and 5, which was listed on the National Register 20 November 2002. Pier 3 was rehabilitated and seismically upgraded as part of a federal tax credit project for the Central Embarcadero Piers Historic District.

Pier 1

See also Section 7 of the bulkhead wharf (Contributing Resource).

Description

Summary

Pier 1 was built in 1929-1931 and consists of a substructure, a transit shed, and a bulkhead building. The substructure was built in 1929-1930, and the transit shed and bulkhead building were built in 1930-1931. In 1962 the north apron was widened by about 15 feet. A remodeling of the pier to the Secretary of the Interior's Standards for offices for the Port of San Francisco and for private businesses was completed in 2001. This remodeling resulted in the complete rebuilding of the deck aprons and considerable filling of the interior of the transit shed. In 2002, a connecting wharf was built between the bulkhead wharf and the south apron.

Pier 1 was individually listed on the National Register in 1998 and is part of the Central Embarcadero Piers Historic District, listed in 2002. In the registration forms for both of those listings, Pier 1 is described in greater detail than in what follows. In 2002, Pier 1 was rehabilitated using Federal Tax Credits including seismic repairs, adaptive reuse of the transit shed and bulkhead building for offices, alterations to meet code requirements, and construction of a connecting wharf between the bulkhead wharf and the south apron.

Substructure

The substructure of Pier 1, built in 1929-1930, consists of a bulkhead wharf that is 210 feet long by about 40 feet wide; and a substructure beneath the transit shed that varies (roughly) from 135 to 165 feet in width by 706 feet in depth. Before the north apron was widened in 1962 the substructure was about 15 feet narrower. The variation in width is accounted for by a narrowing of the pier along its south side. The substructure is made of reinforced concrete piles that are spanned by reinforced concrete caps, and a reinforced concrete deck that is laid over the caps. While the piles and caps appear to be original, the apron of the deck was rebuilt on all sides in the 1990s and a depressed rail spur was removed from the south apron. In order to suggest the maritime use of the pier, thin strips of brass have been laid along the new south apron to indicate where the original rail spur was located, and mooring bitts and mooring cleats have been repositioned on the new deck.

Transit Shed

The transit shed, built in 1930-1931, extends for forty-six bays, or almost 700 feet, from the rear of the bulkhead building into the bay. Structurally, the shed has a steel frame and reinforced concrete walls. On the long sides, shallow buttresses, or pilasters, with steeply sloping capitals and a generally medieval appearance, divide the exterior elevation into bays. Windows have steel sashes of many lights. In the south elevation, large roll-up metal doors located in every third bay have been replaced by modern steel and glass doors. Similar treatment occurred in the north elevation, with the result that no original roll-up doors remain in this transit shed.

The rear elevation remains intact, with bands of steel sash windows across the first- and second-story levels, two metal-clad wooden doors with upper lights and a lower panel, pilasters dividing the composition into three bays, and a gabled parapet over the middle bay that culminates in a flagpole.

The roof of the transit shed is made of wood planks laid over longitudinal and transverse steel trusses that are supported by steel I-beams. For approximately one-half the length of the shed, the central portion of the roof rises to a monitor with steel sash windows of wire glass.

The front (western) third of the transit shed interior has been filled with cubicles and a new mezzanine level, but sight lines and some sense of a large, open space remains. The rear (eastern) two-thirds of the shed has been divided by partitions into small offices.

Bulkhead Building

The bulkhead building, built in 1930-1931, is timber framed in construction and clad in stucco on the exterior. Its composition is dominated by a broad central pavilion with a monumental arched entry, monumental tapering piers that flank the arch, and a gabled parapet. This pavilion is flanked by two flat-roofed bays on either side (i.e., to the north and south). Detailing is classical. Pedestrian access is via paired wooden doors clad in sheet metal; these have upper lights and lower panels. All windows have wood sashes with wooden muntins. Those in the second story are double hung, while those in the first story are fixed, with hopper transoms. In the northernmost bay there is a segmental arched opening which served as a portal for the rail

spur that once existed on the north apron. The iron gate that once closed this opening (as per plans) has been removed, but an iron transom grille within the arch survives.

The south elevation of the bulkhead building is one bay in width. It is similar in architectural treatment and materials to the main elevation facing the Embarcadero.

Signage includes raised metal letters reading “Pier 1” above the monumental arch and, at a lower level, back-lit sheet metal signs reading “Pier 1” and “Entrance.”

The monumental arch has been filled in recent years with steel and glass doors and a transom. The interior of the bulkhead building has been generally remodeled with new office partitions and wall finish.

Construction History

Pier 1 was listed on the National Register on 5 January 1999. Pier 1 is also part of the Central Embarcadero Piers Historic District, which includes Piers 1, 1½, 3, and 5 and which was listed on the National Register 20 November 2002. Pier 1 was rehabilitated to the Secretary of the Interior’s Standards for occupancy by the Port of San Francisco and commercial tenants in the spring of 2001. In 2002, a connecting wharf known as Pier 1/2 was built between the bulkhead wharf and the south apron for pedestrian access to the waterfront (Port of San Francisco 2004).

Ferry Building

See also Section 8a of the bulkhead wharf (Contributing Resource), Section 8 of the bulkhead wharf (Contributing Resource), and Section 7 of the bulkhead wharf (Contributing Resource).

Because the Ferry Building is individually listed on the National Register (United States Department of the Interior. National Park Service. n.d.) and documented in a previous nomination, it is described here in summary fashion.

Description

The Ferry Building was under construction from 1896 to 1903. It is three stories in height and steel frame in construction, with a front wall of gray Colusa sandstone and interior walls of brick.

Ornamentation is classical revival in style. A tower of reinforced concrete rises from the center of the building and was modeled after the Giralda Tower in Spain and the Piazza San Marco Tower in Venice. The dominant motif in the facade is a series of large arched windows filled with a wood clathri (a grid like glazing pattern). The building was constructed on a massive reinforced concrete foundation. Originally many wooden ferry slips were adjacent to the rear (east) side of the building, but these have all been removed and replaced by a large concrete platform with a large concrete restaurant building. The concrete platform and restaurant are not within the district boundary.

Rehabilitation of the building, including restoration of the exterior front and the nave has just been completed in 2003.

Construction History

The Ferry Building was first occupied in 1898 as the Union Depot and Ferry House and was completed in 1903.

The building was listed on the National Register of Historic Places in 1978 and it is Landmark No. 90 in the City of San Francisco. The Ferry Building was rehabilitated to the Secretary of the Interior's Standards in 2000-2003 as a federal historic tax credit project.

Agriculture Building

See also Section 8 of the bulkhead wharf (Contributing Resource) and Section 8b of the bulkhead wharf (Contributing Resource).

Because the Agriculture Building is individually listed on the National Register and documented in a previous nomination (McGuire 1978), it is described here in summary fashion.

Description

The Agriculture Building, built in 1914-1915 and enlarged in 1918, is a two-story steel-frame building that is built on piles over the water. Brick cladding, terracotta trim, a granite base, a copper cornice, wood casement windows, and iron doors in cast iron casings are among the variety of materials used in the exterior of this building.

A monumental central bay with quoins and a flat arch of terracotta enframe the iron casings, transom, and paired doors. A phoenix and flagpole can be found in the keystone position of the arch. Two giant shields of terracotta can be found in the second story, and patterned brick panels are in the second story between the windows.

Construction History

This building was originally built as the Ferry Station Post Office in 1914. It was designed by A. A. Pyle of the engineering staff of the Board of State Harbor Commissioners. The building was completed in August 1915 and was enlarged in 1918 with an addition at the rear.

The Post Office moved out of the building in 1925. For several years the building was occupied as offices for transportation companies. In 1933 the State Department of Agriculture moved in and the building became known as the Agriculture Building. For its office and agriculture uses, its interior was remodeled (McGuire 1978). The building remains in office use.

The building was listed on the National Register of Historic Places in 1978.

Fire Station 35 (at Pier 22½)

See also Section 9b of the bulkhead wharf Section 8 (Lost feature).

Description

Fire Station 35 was built in 1915 and has functioned as a firehouse from that year to the present. The two-story building is wood-frame in construction clad in stucco. It is built on a bulkhead wharf of reinforced concrete. In the City of San Francisco Landmark Designation Report, Anne Bloomfield noted that it is symmetrical on all four sides and that stylistically, it is Renaissance Revival in form and proportions and Mission Revival in detail. The roof is hipped, with overhanging eaves and carved rafter ends, and is covered with Spanish clay tiles. Windows are casements, most paired, of eight lights per casement in the second story; and fixed windows of sixteen lights, with hopper transoms, in the first story. The centrally placed front doors are paired, and made of wood, with upper lights divided by muntins. Wood-panel doors with upper lights can also be found in the south and east walls. An original sign reading “SFFD” and a

flagpole can be found over the front door, and these are flanked by back-lit sheet metal signs from the 1930s reading “Engine 35” and “Fireboat 1.”

The interior has a central garage bay that is still used to house a fire engine. A living room and kitchen are located south of this bay, and living quarters are to the north. In the second story are a dormitory, officers quarters, lockers, and a restroom. The finishing materials (other than in the kitchen) are almost entirely original. Walls and ceilings are wood, other than in the garage, which is plaster; doors are wood-paneled; the spiral staircase of seventeen steps is iron; the rest room has a floor of one-inch hexagonal tiles, two wood stalls, a tile shower stall (with a modern door), and four sinks; and there are two brass poles from the second to the first story.

Many of the furnishings date from the period of construction and may be original, including three wood desks — one a roll-top; iron beds; wood lockers with paneled doors; incandescent light fixtures with glass globes; a wood-frame mirror; hanging wood signs reading “No Smoking” and a wood sign reading “Dennis T. Sullivan” from an old fire boat.

Two fire boats, the *Phoenix* and the *Guardian*, are moored in the bay behind the firehouse. An original iron monitor is mounted on the sidewalk south of the building. It can receive water from the fire boats and distribute it to the city’s emergency water system.

Pier 22½, behind the firehouse, is a concrete structure built in the 1980s. The storage shed on the pier was built in 1987 by the San Francisco Port Commission Department of Engineering.

Construction History

Fire Station 35 at Pier 22 was designed in 1915 by A. A. Pyle, an architect on the engineering staff of the Board of State Harbor Commissioners. It was described in the Biennial Report as: “A fire house for the use of the San Francisco fire department, located on the bulkhead wharf between Piers 22 and 24. This is a two-story timber building, 38 feet by 62 feet in size, covered with cement plaster and containing a garage for a motor-drive fire engine with living and sleeping rooms for the company. This building was completed in April, 1915” (BSHC 1916:41).

The building has remained continuously in its original use to the present day. In 1999, it was designated San Francisco City Landmark No. 225 under the name Fire Boat House.

Pier 24 Annex

See also Pier 24, Section 8 (Lost Feature), and Section 9 of the bulkhead wharf Section 8 (Lost Feature).

Description

Pier 24 Annex is located immediately north of Pier 26. Pier 24 Annex was built in 1935-1936. It remains in nearly its original condition on the exterior and the interior.

Pier 24 Annex rests upon a connecting wharf of reinforced concrete-jacketed piles, wood caps, and wood stringers. It is outshore and adjacent to a portion of Section 9 of the bulkhead wharf. A photograph shows the substructure under construction with concrete-jacketed piles clearly visible (BSHC 1938:55). The building is timber-frame in structure, with a wood roof supported by wood rafters, trusses, and posts. A construction photograph shows a series of parallel timber trusses running parallel to the seawall and widening toward the rear (BSHC 1938:54). The front of the building is clad in stucco, while the other sides are faced variously with original v-groove siding. Steel roll-up doors are elevated from the street above a loading dock. These doors occupy nearly all of the lower front of the building. Bands of steel sash windows stretch across the top of the front and can also be found in the side and rear walls and in the roof monitor. A steel frame and wood marquee, or canopy, is suspended by steel ties over the loading dock. The words “Pier 24” are stenciled on the front of Pier 24 Annex truck dock. The stucco facade is articulated with flat, unadorned pilasters and a simple cornice.

Construction History

Pier 24 Annex was designed in 1935 following the successful example of Pier 26 Annex built in 1928. Pier 24 Annex, labeled on original drawings dated 14 October 1935 as “Plans for Connecting Wharf and Bldg., Piers 24 and 26,” was designed with G. A. Wood in charge, under the supervision of Frank G. White, Chief Engineer. According to the Biennial Report:

> The length of the wharf between the piers varies from 185 feet at the waterfront line to 200 feet at the outer edge and it extends into the slip a distance of 141 feet. The timber deck, which is elevated truck height above the street to facilitate cargo handling, is supported on timber piles protected by precast reinforced concrete

jackets. Two ramps located adjacent to the outer wall of the building permit of access to the elevated deck by tractor and trailer trains from Piers 24 and 26. The wharf shed is a timber frame structure and is equipped with continuous steel rolling doors along the street front. This project which is also being partially financed by a P.W.A. grant, was 65 per cent complete on June 30, 1936. (BSHC 1938:54)

Pier 26

See also Section 9 of the bulkhead wharf (Contributing Resource).

Description

Summary

Pier 26, built in 1912-1913, consists of a pier (771 by 200 feet) and a transit shed that is decorated in the Mission Revival style at its west end. Portions of the west end of the transit shed are enclosed as office space. Outside the front of the transit shed and abutting it on its south side is a small office building built in the 1920s or 1930s in the same architectural style. This later addition to the transit shed is a part of the Pier 26 contributing resource.

The pier is built on concrete piles and the structure of the transit shed consists of steel columns and timber trusses. The structure is clad in rustic siding except on the front, which is clad in stucco. The steel columns were built to support traveling cranes, one on either side of the single row of interior columns. The exterior is distinguished by its largely intact Mission Revival front, its unaltered east end facing the bay with its “Pier No. 26” sign and sliding wood doors, and the design of its side walls with continuous rows of steel roll-up doors.

Setting

Pier 26 is located between Harrison and Bryant streets on the Embarcadero. It is perpendicular to the Embarcadero. When it was built, it was at the foot of Steuart Street. Since it was completed, Steuart Street has been closed at its southern end, first by the Embarcadero Freeway and more recently, after the Embarcadero Freeway was demolished, by reconfigured parcels, but the view of the front of Pier 26 is still possible down the Steuart Street corridor. In addition, the Bay Bridge was built above the west end of the pier in the 1930s. Pier 26 is flanked on its north

side by Pier 24 Annex, built in 1936 as a bulkhead connector building between Pier 24 and Pier 26. On its south side is Pier 26 Annex, built in 1927 as a bulkhead connector building between Pier 26 and Pier 28.

Substructure

The Pier 26 substructure, built in 1912-1913, begins at the eastern edge of a 27-foot-wide bulkhead wharf. The pier is 200 feet wide and 771 feet long. It is built on a grid of 676 reinforced concrete piles (13 across, 52 long) with a concrete deck. There are approximately 20-foot-wide aprons on three sides of the transit shed. A depressed rail spur runs along the north apron, and a grade-level rail spur runs along the south apron. The apron surfaces were originally a mix of asphalt and "4 inch bituminous rock pavement," according to the engineer's plans. Mooring bollards were originally placed at 60-foot intervals around the periphery of the aprons.

The pier itself does not appear to have been substantially changed. Today, the surfaces are paved entirely in asphalt. Originally, the design included "a type of suspended fender in the effort to decrease the heavy maintenance cost" due to collisions from ships. The fenders were reconstructed in 1944, 1947, and 2000. The substructure of the piers was patched in 1917, and was repaired in 1959, 1960, 1963, and 1972.

Transit Shed

The Pier 26 transit shed (approximately 750 feet long by 160 feet across), built in 1912-1913, is built entirely on its pier and not at all on the bulkhead wharf. Unlike many San Francisco piers built both before and after this one, this pier is built up to the bulkhead wharf without a separate bulkhead building. Nevertheless, as in a bulkhead building, there are offices at its west end, in this case inside the transit shed.

The transit shed is structurally mixed, with steel columns and heavy timber trusses. The steel columns (30 feet on center) are built along the sides and down the center, creating two 80-foot-wide aisles that run the length of the building.

The steel columns originally supported a traveling crane in each bay, both of which have been removed. The columns support a heavy timber truss, which in turn supports a nearly flat roof

and a central rectangular monitor. The columns are protected at their bases by cast-iron wheel guards.

The volume of the transit shed defined by its structural frame is enclosed in a variety of ways. The west end, facing the Embarcadero, is stuccoed. The east end and the upper portions of the sides are clad in v-groove siding. Between the perimeter steel columns on the sides are steel roll-up doors so that when all the doors are open, there are no walls on the sides except for a short distance adjacent to the two ends. Original wood sliding doors remain in the wall at the east end of the pier. In the upper portions of the sides and in the east end there are bands of fixed sash windows. In the monitor, there is a band on each side of alternating fixed sash windows and louvered ventilators. At the front of the building, the central arched doorway is enclosed by a steel roll-up door. The current steel roll-up door replaced an original in 1973. The arch is flanked by two paneled doors. The northernmost archway, through which runs a rail spur, was originally closed by a steel folding gate. That gate has been replaced by a chain-link fence gate. Large arched openings on the front are filled with plate glass windows in wood sashes.

The west front of the building was decorated to match Piers 28, 30, and 32. According to the Board of State Harbor Commissioners, “considerable attention has been paid to architectural treatment. A modified Mission style has been adopted for the front. This will serve to make the waterfront more attractive and will, it is thought, meet with general approval.” (BSHC 1913:46) The design is a symmetrical composition of arched openings in a stucco wall. A large central arch is flanked by two pairs of smaller arches. The pairs of smaller arches are each unified by a pent roof and the whole facade is unified by its parapet. The parapet consists of a central raised espadaña and lower sides with stepped projections at regular intervals. The espadaña reinforces the importance of the large central arch and it hides the monitor behind it. The organization of the arches and the relationship of the arches to the parapet suggest a three- or five-aisled interior perhaps on a facade structure of regular columns or piers rising between the arches to the parapet. In fact, neither of these is the case; the facade has no relationship to the two-aisled interior or to the structure of the facade. The design of the facade is like a billboard.

The overall ornamental scheme is embellished by a number of features. A flagpole rises from the center of the espadaña. In the central part of the parapet, the name and occupant of the pier

were originally presented in raised wrought-iron letters. Today the wrought-iron letters are gone and only the name, Pier 26, remains, painted on the wall. The three smaller arched windows have modified Palladian frames for the glass. The central arch originally had a bracketed arched band of windows above the roll-up steel door. Decorative panels, moldings, and a plaster cartouche in the band of windows were removed; this occurred after 1973 when the roll-up door was replaced. The most richly detailed features of the facade are the two pent roofs over the two pairs of arched windows. The roofs are each supported on decorative wrought-iron brackets and clad in red terracotta tile. Cast-iron gutters are at the eaves. Panels in the wall between the braces of the brackets are each embellished with a "shattered tile mosaic in 4 colors," according to the plans.

The east end of the transit shed is also designed symmetrically. The wall itself covers the structural frame of the transit shed with a central high section at the end of the raised monitor between the slightly sloping sides of the main roof. In the wall beneath the raised monitor is a wooden sign board measuring almost 39 feet across and 7 feet high. In the center of the sign board are raised wooden letters, 1½ inches thick and 3 feet, 9 inches high, spelling "Pier No. 26."

Inside the transit shed are several small, plain enclosed spaces. These are offices in the two corners at the west end, adjacent to the Embarcadero. At the far east end are toilets.

In the southwest corner, designed at the same time in 1912 as the pier and transit shed, is an enclosed, one-story space labeled "office" on the original drawings. This structure utilizes portions of the west and south walls of the transit shed as its west and south walls. Its north and east walls are framed with 2- by 6-inch studs and clad in channel rustic siding. These walls are inside the transit shed but they are built like exterior walls. The flat roof is supported by a series of trussed rafters. The north, south, and east walls are lit by conventional, double-hung windows. The west wall is lit by the lower half of the two arched windows facing the Embarcadero. The upper half of those windows admits light over the roof of the office to the interior of the transit shed. The office is irregular in shape with its principal space 12 feet high and measuring roughly 20 by 63 feet in plan. At either end of the east side of this space are small projecting wings. The northeast wing encloses an extension of the main space. It is provided with a small window and a counter, apparently for checking cargo or workers in and

out of the transit shed. The northwest wing encloses two closets, a toilet, and a heater room. The original interior finishes — tongue and groove "V jointed boarding" — have been replaced.

This office structure has been expanded with an extension to the east and a second story. Judging from the channel rustic siding and other details on the additions, these appear to have been made early in the life of the pier, and at any rate not later than the 1930s.

In the northwest corner, a structure designed in 1914 — two years after the original construction of the pier — was built housing facilities for ticket sales, passenger waiting, and baggage. This is a wood-frame structure that used the west and north walls of the transit shed and new walls on its south and east sides. This appears to be a two-story structure, but was built as a 24-foot-high space with a mezzanine. On its public front — the south wall — its ground and mezzanine levels are clad in panels with tongue-and-groove siding below plate glass windows. The ground floor is entered through glass-paneled doors — a single door into the office area and double doors into the waiting room area — and there was originally a sliding glass wicket. Above the mezzanine level, the structure is clad in rustic siding. Inside, the walls are paneled in board-and-batten siding with tongue-and-groove above the mezzanine windows. The staircase and mezzanine railings consist of decorative wood balusters. The office and waiting room space was divided by a large counter. Glass and metal windows at one end enclosed the cashier's cage. This high space was lit by two round-arched windows — one in the front of the transit cage and one cut through the north wall of the transit shed. The west part of this space was the office. The east part of the space was a waiting room with built-in benches. East of the waiting room and linked to it through an "inquirer's screen" was a one-story baggage room.

The original baggage room has been replaced by a two-story addition to the office and waiting room. Judging from the materials and finishes, this addition appears to have been built in the 1910s or 1920s. The first-floor interior with its plaster walls and wood posts appears little changed. Second-floor finishes are recent. Many of the original office and waiting room finishes are original. However, the space has been divided into two separate floors.

At the outer end of the transit shed, drawings were prepared in 1913 for "Stevedores Toilets." In a space that measured 8 by 28 feet, there was a 16-foot trough urinal and 9 toilets (2-foot centers

and "without partitions"). These toilets were seats with holes that opened to the fresh air. There was no running water. This enclosure was built on a frame of 2- by 4-inch studs clad in rustic siding. The urinal and toilets were replaced — probably in 1938 when toilets were upgraded on most of the piers.

In the main space of the transit shed are remnants of its early use, including brittle paper signs saying "No smoking on Ship or Dock," and a hanging wood sign saying "No Smoking Allowed," and a sprinkler system that could be activated by "pull switches." In addition, there are recent portable buildings near the west end, portions of the large open space of the shed have been partitioned by chain-link fencing, and the shed is lit by suspended fluorescent lights.

Office Shed

Adjacent to the south side of the transit shed at the inshore end of the pier is a small office structure, perhaps built as a checkpoint for longshoremen or Belt Railroad cars entering and leaving the south apron of the pier. This is a one-story, flat-roofed, wood structure clad in stucco. It is a four-sided structure that is wider at the front than at the rear, narrowing to make way for the curving rail spur as it entered the south apron. In the same style as the facade of the transit shed, the front of this office shed has an espadaña parapet. There is a door on either side of the front facade and a window counter with a shaded canopy in the center. While the date of construction is not known — it was not shown on original drawings of the transit shed or the pier — the style of the front appears to date from the 1920s or 1930s. On the 1949 Sanborn map it is labeled "office" (Sanborn Map Company 1949:volume 2, p. 115).

Construction History

Pier 26 is one of a group of four piers that was planned at the same time between Harrison and Brannan streets, approximately halfway between the Ferry Building and China Basin. This group, consisting of Piers 26, 28, 30, and 32, was built as seawall sections 9 and 10 were constructed. The planning, design, and award of the construction contract were carried out during the tenure of A.V. Saph as Assistant State Engineer. Construction began under the subsequent Assistant State Engineer, Jerome Newman.

The Biennial Report of the Board of State Harbor Commissioners for 1910-1912 mentioned two special considerations in the design of these piers. Addressing the problem of the deterioration of untreated fender piles from teredo worms, the designers "adopted a type of suspended fender in the effort to decrease the heavy maintenance cost." Addressing the appearance of the structures, the same report stated, "On these piers, also, considerable attention has been paid to architectural treatment. A modified Mission style has been adopted for the front. This will serve to make the waterfront more attractive and will, it is thought, meet with general approval" (BSHC 1913:46).

The drawings for Pier 26 were prepared under the direction of Charles Newton Young. The contract for construction was awarded to Grant Smith & Company, contractors, for $517,650. Construction began after 8 August 1912, and was complete by the end of 1913. A few years after it was built, the concrete pier was repaired due to laitance, "a disintegration of concrete due to poor work in mixing" (*San Francisco Chronicle* 1917a).

The initial tenant of Pier 26 was expected to be the California Atlantic Steamship Company, as shown on the original 1912 drawings. From 1914 to at least 1918, the tenants were W. R. Grace & Company on the north side and Balfour Guthrie & Company on the south side. In January 1914, plans were prepared for new office facilities inside the front of the pier on the north side to accommodate passengers on W. R. Grace & Company ships. W. R. Grace & Company, based in New York, was incorporated as "merchant, importers and exporters and steamship owner" (Moody's 1915:Vol. II:2610). The Atlantic and Pacific Steamship Company was also listed here in 1915.

From 1926 to at least 1956, the American-Hawaiian Steamship Company, also listed in the city directory as the Panama Canal Line, was located here. According to *Moody's Manual* in 1915, the American-Hawaiian Steamship Company "Owns and operates a fleet of 26 American-built cargo steamers (one with accommodations for 36 passengers) . . . between New York and San Diego, San Francisco, Los Angeles, Puget Sound and the Hawaiian Islands . . . On the opening of the Panama Canal the Company inaugurated its service via that route, which reduced the time between New York and San Francisco from 50 days via the Straits of Magellan to 21 days via Canal" (Moody's 1915:Vol. II:2056).

In addition, in 1927 the California and Hawaiian Sugar Refining Corporation, and the Bay Transport Company were located here. In 1933, the Oceanic and Oriental Navigation Company and the States Steamship Company, both serving foreign ports across the Pacific, were located here. From 1952 to at least 1956, Williams, Dimond & Company operated this pier along with Pier 24 for the American-Hawaiian Steamship Company, Williams, Dimond & Company and several other regular steamship lines: the Prince Line; Royal Mail Lines, Ltd.; Bank Line Transport & Trading Company; Donaldson Line; Fred Olsen Line; Furness Withy & Company, Ltd.; Holland-America Line; Maersk Line; and Union Steamship Company of New Zealand, Ltd. From 1959 to 1962, the pier was operated by the California Stevedore & Ballast Company for Fred Olsen, Furness Withy, and Hamburg-America Steamship lines.

Among its many tenants, those which appear to have had the most important relationship to its history, were its first tenants, W. R. Grace & Company and Balfour Guthrie & Company, and its longest tenant, the American-Hawaiian Steamship Company. For most of its life, the principal uses of the pier have been general cargo and passengers for intercoastal and coastwise shipping.

Despite the decline of shipping, in 2002 Pier 26 retains some maritime uses in a variety of small enterprises. Offices are located in the old office spaces at the front and in portable structures inside the transit shed. Storage and other uses occupy the rest of the pier.

Pier 26 Annex

See also Section 9 of the bulkhead wharf (Contributing Resource).

Description

Pier 26 Annex is located immediately south of Pier 26. Pier 26 Annex was built during 1928-1930. The building remains in nearly its original condition on the exterior and has been adapted for offices on the interior.

Pier 26 Annex rests upon a connecting wharf of reinforced concrete-jacketed wood piles, wood caps, and wood stringers. It is outshore of and adjacent to a portion of Section 9 of the bulkhead wharf. The building is wood-frame in structure, with a wood roof supported by wood rafters, trusses, and posts. The front of the building is clad in stucco, while the other sides are faced

variously with original v-groove siding and plywood (on the north wall). Steel roll-up doors are elevated from the street above a loading dock. These doors occupy nearly all of the lower front of the building. Bands of steel sash windows stretch across the top of the front and can also be found in the side and rear walls and in the roof monitor. A steel frame and wood marquee, or canopy, is suspended by steel ties over the loading dock. The stucco facade is articulated with flat, unadorned pilasters and a simple cornice of two parallel moldings.

Construction History

According to the Biennial Report of 1936, "In 1928 a bulkhead wharf and wharf shed were constructed connecting Piers 26 and 28 for the use of the American-Hawaiian Steamship Company in the handling of package freight. This facility has functioned so satisfactorily that a similar structure is now being constructed between Piers 24 and 26" (BSHC 1938:54). Original drawings of the structure dated 21 September 1927 were prepared in charge of H. B. Fisher under the supervision of Frank G. White, Chief Engineer. These drawings were labeled "Plans for Connecting Wharf and Buildings Between Piers 26 and 28." The structure was originally designed with aprons on either side for jitneys from adjacent piers that were too low to use the truck dock at the front. From the apron, jitneys could enter the rear of the building through doors on either side and travel up ramps to the main floor.

Pier 28

See also Section 9 of the bulkhead wharf (Contributing Resource).

Description

Pier 28 was built in 1912-1913 to specifications desired by its first tenant, Matson Navigation Co. It was built at the same time as Piers 26, 30, and 32 and two years before Pier 24. Although these piers were structurally very different from each other, all were built with fronts designed in the Mission Revival style and formed a harmonious ensemble. Today, only Piers 26 and 28 remain of this group.

Substructure

The substructure of Pier 28, built in 1912-1913, measures 150 feet in width by 677 feet in depth. It is made of reinforced concrete piers, caps, and deck. The rail spur on the north side is flush with the deck and emerged onto the Embarcadero through an arched portal in the front of the building. The rail spur remains about 60 percent intact; the rest has been removed. The rail spur on the south was originally depressed and emerged onto the Embarcadero on the south side of the building. It was rebuilt at an unknown time as a flush spur and today only the front 25 feet of this track remains. Mooring bitts are mounted on the north and south aprons, and fender piles are attached to the apron on all sides.

Transit Shed

The transit shed, built in 1912-1913, has a steel frame and its walls, roof, and monitor are made of reinforced concrete. The roof is supported by longitudinal and transverse steel trusses, which in turn are supported by steel I-beams. The I-beams divide the shed into three aisles. The doors are roll-up steel doors, and all windows, in both the walls and monitor, have steel sash and are glazed with wire glass.

Offices can be found built into the northwest and northeast corners of the transit shed, on both sides of the central aisle. The office structures are two stories in height, with channel rustic siding and wood sash windows.

Unlike most piers on the waterfront, Pier 28 has no separate bulkhead building that fronts the transit shed. It does, however, have an architecturally embellished front of similar scale and level of detail as is found elsewhere on the waterfront.

The front of the transit shed is made of reinforced concrete, as are the other three walls of the shed. The style is Mission Revival. In composition, the facade features a monumental central arch flanked by two slightly smaller arches. The central arch was always intended as a driveway; the flanking arch to the north is a portal for a rail spur; and the flanking arch to the south houses a window with wooden mullions. An espadaña reinforces the importance of the central arch and hides the monitor behind it. Wooden pent roofs, with curvilinear wood supports

and Spanish tiles, project from the facade over the two subordinate arches. The composition is topped by a flagpole.

Construction History

Pier 28 is one of a group of four piers that was planned at the same time between Harrison and Brannan streets, approximately halfway between the Ferry Building and China Basin. This group, consisting of Piers 26, 28, 30, and 32, was built as seawall sections 9 and 10 were constructed. The planning, design, and award of the construction contract were carried out during the tenure of A.V. Saph as Assistant State Engineer. Construction began under the subsequent Assistant State Engineer, Jerome Newman.

The Biennial Report of the Board of State Harbor Commissioners for 1910-1912 mentioned two special considerations in the design of these piers. Addressing the problem of the deterioration of untreated fender piles from teredo worms, the designers "adopted a type of suspended fender in the effort to decrease the heavy maintenance cost." Addressing the appearance of the structures, the same report stated, "On these piers, also, considerable attention has been paid to architectural treatment. A modified Mission style has been adopted for the front. This will serve to make the waterfront more attractive and will, it is thought, meet with general approval." (BSHC 1913:46).

The drawings for Pier 28 were prepared under the direction of Charles Newton Young. The contract for construction was awarded to the San Francisco Bridge Company, contractors, for $358,400. The San Francisco Bridge Company had built the U.S. Army Transport piers at Fort Mason and were engaged at that time in building a dry dock at Pearl Harbor, dredging a channel at Mare Island, and filling mud flats for the Panama-Pacific International Exposition in San Francisco. Construction began after 8 August 1912 and was completed by 16 October 1913, when it was photographed showing rail cars on the apron and wooden fences controlling access to the aprons at the Embarcadero (Port of San Francisco n.d.:untitled binder, n.p.).

Pier 28 was built for Matson Navigation Company. Matson, based in a large and imposing building built in 1921 at 215 Market Street in San Francisco, carried general cargo and passengers to Pacific coast ports and Hawaii. A 1914 photograph of the interior of the transit

shed at Pier 28 showed a variety of goods in transit during the Matson era, including stacks of boxes, stacks of sacks, a fenced bay, and a boat.

By 1927, Matson had moved to Piers 30-32, and with Pier 26, Pier 28 was occupied by the coastwise and intercoastal lines, the American-Hawaiian Steamship Company, the California & Hawaiian Sugar Refining Corporation, and the Bay Transport Company, and by three foreign lines, the Oceanic and Oriental Navigation Company, and the Williams Line. The American-Hawaiian Steamship Company, which appears to have been the principal tenant, remained until at least 1939. By 1952, Williams Dimond & Company was the principal tenant. From 1959 to at least 1962, the Overseas Shipping Company was the principal tenant. In addition, Furness-Withy, Grancolombiana, and the Barber Wilhelmsen Line all used Pier 28 during this period. According to *Moody's Manual* in 1915, the American-Hawaiian Steamship Company "Owns and operates a fleet of 26 American-built cargo steamers (one with accommodations for 36 passengers) . . . between New York and San Diego, San Francisco, Los Angeles, Puget Sound and the Hawaiian Islands . . . On the opening of the Panama Canal the Company inaugurated its service via that route, which reduced the time between New York and San Francisco from 50 days via the Straits of Magellan to 21 days via Canal" (Moody's 1915:Vol.II:2056).

Pier 28½ Restaurant

See also Section 9 of the bulkhead wharf (Contributing Resource).

Description

This is a small, one-story, wood-framed bar and restaurant that rests on a connecting wharf just outshore of the bulkhead wharf immediately south of Pier 28. Although not located on a pier, its location is referred to unofficially as Pier 28½. It has two parts: an older, stucco-clad, flat-roofed square structure to the south built by 1935, and a larger, gabled rectangular addition to the north built between 1935 and 1949. The addition seems to be clad in plywood. Both parts have fixed wood windows. The addition is of unknown date. The roof on the original building has projecting eaves that cast shadows on the tops of the walls.

In the original part of the building, the southwestern corner is cut at an angle big enough for an entrance. The interior has been remodeled into a single space with a bar on one side and the other side facing the bay through a nearly continuous band of windows.

Construction History

A photo on the premises dating from about 1935 (showing the Bay Bridge under construction) shows the older portion of the building with signs reading "Bay View Restaurant" and "Lunch Room."

Because the 1949 Sanborn map shows a structure with a footprint similar to that in 2002, the extension appears to have been added between 1935 and 1949. The walls may have been stuccoed at that time or subsequently. Although the building has been altered since it was first built, its size, footprint, and perhaps its stucco walls were all present by 1949.

This is a waterfront restaurant known originally as the Bay View Restaurant. For many years it was the Boondocks under James H. Kennedy. Under a new operator, in 2004 it was renamed the Hi Dive and continues in use as a restaurant.

Pier 36

See also Section 12 of the bulkhead wharf (Contributing Resource).

Description

Summary

Pier 36 was the third in a group of three piers (including Pier 38 and Pier 40) built of reinforced concrete in 1908-1909 — all originally without decorated pier fronts. Construction of this group marked the beginning of the modern reconstruction of the port. The substructure and transit shed of Pier 36 constitute the third oldest pier on the waterfront and an early example of reinforced concrete construction by the Board of State Harbor Commissioners. The pier's original purpose was as a freight ferry facility for Western Pacific Railroad cars. To serve in this capacity, it was built with a wooden ferry slip at its east end. In 1917 the transit shed was extended across the bulkhead wharf to the Embarcadero. Unlike other pier buildings on the bulkhead wharf, this did

not have an ornamented front. Offices were built within this extension in 1933. Since 1962 the ferry facilities and outer wood portions of the pier have deteriorated and been largely removed. The north apron is also deteriorated.

Today, while substantial parts of Pier 36 have been lost, including the outshore wooden portion of the pier and transit shed and the hoisting tower, at least 70 percent of the pier as it was developed in the period of significance remains intact (approximately 74 percent of the area once covered by transit sheds remains and approximately 73 percent of the deck area over the original substructure remains). The entire steel and concrete inshore portion of the transit shed, designed by H. J. Brunnier, and the 1917 extension to the Embarcadero survive — the reinforced concrete portions being early examples in San Francisco and at the port. The wood portion of the transit shed with its wood substructure is gone — like every other pier with wood piles within the district (exceptions are narrow wood aprons built to absorb shocks, and concrete-jacketed wood piles at Pier 17 and Pier 23). Pier 36 lacks most of its car ferry facilities but it retains the unique wide south deck that was an important part of its car ferry operations. Thus, along with Pier 43, it still represents the presence of car ferries at the port. In summary, while the outshore portions have been removed, those portions of Pier 36 that were most visible to the public from the Embarcadero are mostly intact, measured in the materials that survive, the spaces that are enclosed, the open spaces that survive, and the volumes that survive — the only substantial change is the replacement of the unornamented stucco facade by plywood.

Substructure

Plans for the Pier 36 substructure were prepared under the supervision of Assistant State Engineer, Ralph Barker and were approved 25 February 1909. Altogether Pier 36 was 201 feet wide and 721 feet long with a deep car ferry slip on its outshore end, a transit shed along its north side, and a wide open deck with three rail spurs on its south side. The substructure was in two sections, an inner section of reinforced concrete measuring 409 feet long by 201 feet wide, and an outer section of wood measuring 312 feet long by 201 feet wide at its maximum points. The wood portion of the substructure, “designed to afford resiliency to absorb the shocks of incoming car floats and ferry boats” (BSHC 1910:34) consisted of two prongs that embraced a central car ferry slip. The north prong was 312 feet long and the south prong was 179 feet long

— each diminished in width as they extended into the bay. At the head of the car ferry slip was a hoisting tower and a car ferry apron. The design of the concrete substructure was in charge of H. J. Brunnier. The wooden outshore portion of the substructure was designed in charge of Carl Uhlig. The hoisting tower and car ferry apron were also designed by Brunnier.

At the head of the ferry slip was a hoisting tower and a hinged steel ramp referred to as an apron. The hoisting tower was a steel structure with two trussed towers supporting a truss 29 feet high with a span of 36 feet. Within the frame of the tower was hoisting apparatus, including wire rope that lifted weights in the towers over pairs of wheels above each tower. The hoisting machinery was located in a shed adjacent to the tower. The frame of the tower was sheathed in “trussit metal and cement plaster” according to the plans — i.e., expanded metal lath and stucco.

The substructure supported four rail spurs curving onto the pier from the Embarcadero. One spur curved from the south onto the north side of the pier — north of the transit shed — and ran across the concrete and wood portions of the substructure to the outshore end of the north prong. The other three spurs ran on the 99-foot wide open portion of the deck on the south side of the transit shed. This wide open deck was a unique feature of Pier 36 designed to accommodate unusually heavy rail traffic. Two spurs curved from opposite directions onto the center of the pier and ran across the concrete portion of the substructure to the hoisting tower at the head of the car ferry slip. One spur curved from the south and ran across the concrete and wood portions of the substructure to the outshore end of the south prong.

Since 1962, the wood portions of the substructure at the outshore end of the pier have been allowed to deteriorate and have been largely removed. The inshore portion of the substructure retains its concrete piles, caps, and deck, but only about 125 feet of the north side of the ferry slip remains — this remnant has wood piles encased in concrete jackets, wood caps and stringers, and a wood deck. One of the three rail spurs, located outside the south wall of the transit shed, is covered in asphalt. In addition, the hoisting tower and hinged ramp at the head of the car ferry slip have been removed.

Transit Shed

Like the substructure, plans for the transit shed were prepared under the supervision of Assistant State Engineer, Ralph Barker and were approved 25 February 1909. The transit shed also consisted of two connected parts, an inshore shed of steel and reinforced concrete designed in charge of H.J. Brunnier and an outshore shed of wood designed in charge of Carl Uhlig. The interiors of the two parts were linked through a large portal in the center of the rear wall of the concrete shed. This opened into the south half of the first, and widest, section of the wood shed. The concrete and steel shed was built on the north half of the concrete substructure and the wood shed was built on the north prong of the wood substructure.

The steel frame inshore shed was 270 feet long and 83 feet wide. Because of the curving shape and diminishing width of the north prong, the transit shed became narrower in four steps toward the outshore end. The four sections of the wooden outshore shed were 281 feet long, stepping down from about 57 to 30 feet wide. Because the north wall of the entire shed was in a continuous straight alignment, with every narrowing of the transit shed, the ridge line of the roof jumped to the north (BSHC 1908-1910:35).

The column-free space of the inshore portion of the transit shed was spanned by steel trusses and was lit from above by a central monitor. Clerestory windows at the tops of the long side walls and the glazed monitor also provided light to the interior. The steel frame of this portion of the shed was enclosed by poured concrete walls and roofs, including solid walls at the ends except for a single large central opening at each end. Photographs of the interior and the exterior show a strikingly modern space and structure, all the more noticeable for the densely docked tall masted sailing ships of the Alaska Packers alongside and the horse-drawn wagons in front (BSHC 1910:6, 14, 26). As it was built, the transit shed was set back from the Embarcadero about 120 feet.

The wooden portions of the transit shed, clad in 10-inch channel rustic siding, were also column free spaces spanned by trusses. However, lacking a monitor, these spaces were lit by only a single band of clerestory windows.

In elevation, the two sections of the transit shed were different in size, shape, material, and fenestration — the steel and concrete section had two bands of windows and the wooden portion had only one band of windows (BSHC 1908-1910:35).

On 17 May 1917, plans were prepared under the supervision of Frank G. White, Chief Engineer, by A. C. Griewank and Ballou & Janssen to extend the transit shed from its original inshore end westward to the Embarcadero. This was an irregularly shaped structure with curving sides parallel to existing rail spurs, and a cutaway southeast corner where a third existing rail spur passed through a train door in the outshore end of the extension on its way to the ferry slip. The extension lengthened the transit shed by 120 feet along its north side. It is about 97 feet across at its inshore end and after one step back near the southeast corner, it is 83 feet across at its outshore end where it meets the existing original transit shed. This is a wooden structure with three rows of timber posts, creating two aisles, and a wood truss. The frame is clad in "2 inch cement plaster on trussit." A continuous band of clerestory windows on each side is glazed in steel sash with "ribbed wire glass." The front wall with its shallow gable and flagpole at the ridge was given a symmetrical appearance by a pair of long equal-sized panels, one on each side, each enframed simply, in an identical manner. The panel on the north side framed a train door with a steel rolling door. The panel on the south side framed a slightly recessed solid wall. The recessed wall had two purposes: in addition to providing symmetry, because its wooden structure was separate from that of the main wall, it could be removed if necessary in the future. At the time this structure was built it was simply an extension of the transit shed.

On 21 September 1922, plans were dated for a "Stevedore's toilet" room housing urinals and sinks at an unspecified location on Pier 36.

On 6 February 1933, plans were dated for "offices at Pier 36." Located in the northwest corner of the extension of the transit shed, these included partitions, counters, and shelves, toilets, and clear glass windows. A line on the drawing in the southwest corner suggests that offices had already been created there, or were planned for that area in the future. A two-story subdivision of that area for offices is reflected on the facade today by a ground-floor door and three second-floor windows, all located in the recessed panel on the south side. With the addition of offices at

the front, the transit shed extension was given a function like that of bulkhead buildings on other piers.

Since 1962, the wood portion of the transit shed has been removed. The inshore facade of the 1917 extension of the transit shed has been altered. The formerly stuccoed wall surface has been covered in plywood sheets, some of them peeling apart; the train door on the north side has been shortened; the flagpole at the ridge has been removed from its base; and a "Pier 36" sign has been added in the center.

Construction History

The development of plans for Pier 36 was made possible when money became available for new construction under a $2,000,000 bond issue approved in November 1904. With the first sale of these bonds on 8 March 1906, specific plans were developed for new sections of the seawall and for "permanent docks, built of concrete and steel, complete monolithic structures" (Stafford 1910a:27/3). Until this time all of the port's piers were wood structures (except for some experimental concrete piers that were failing), subject to rapid deterioration and demanding of continued high levels of costly maintenance and repair. According to the president of the Board of State Harbor Commissioners, W. V. Stafford, "Pier 36, a combination dock and car ferry slip, was begun on April 16, 1909, and completed January 27, 1910, at a cost of $366,950." Pier 38 and Pier 40 were planned at the same time and were built shortly before Pier 36 along the same structural lines (Stafford 1910a: 26):

> These docks are built on solid concrete piers, having a structural steel floor and shed with a reinforced concrete slab on the floor. The supporting piers are constructed by driving a steel cylinder of a diameter greater than the base of the pier, excavating the mud and water down to hardpan and erecting thereon a reinforced concrete cylinder pier. After the concrete pier is erected the steel cylinder is removed and used again. The floor slab is six inches thick, reinforced with half inch bars on nine inch centers. The floor slab and steel frame are calculated to carry a live load of 500 pounds per square foot. The shed walls are reinforced concrete six inches thick. The roof slab is two and three-quarters inches thick, reinforced with wire cloth and covered with five ply felt and gravel roofing.

> The relatively short time taken in the construction of these docks, taking into consideration the magnitude of the work, is due to the penalty and premium system established by the board. By this system the board expects a penalty per diem for each and every day's delay in the completion of the work beyond those specified in the contract. The premium is a per diem payment to the contractor for each and every day the work has been completed in advance of the time specified.

When they were completed, Stafford described them as "practically imperishable" (Stafford 1910a:26).

In addition to their structural features, these piers were "provided with railroad tracks for the economical and speedy handling of freight. The tracks on the piers will permit cars to be switched into position, so that the cargo handled can be either loaded or discharged direct, thus saving time and team haul" (Stafford 1910a:26).

According to the Biennial Report for 1908-1910, "Pier No. 36 is provided with a ferry slip and apron for the handling of freight cars. The construction of this pier is similar to that of Piers No. 38 and No. 40 out to the nose of the ferry slip; from that point on it is of wooden construction. It was built in this way to afford resiliency to absorb the shocks of incoming car floats and ferry boats. On one side of this pier is a shed, and between the shed and the edge of the pier is a railroad track. The other side of the pier is left open and is also provided with a track" (BSHC 1910:34).

The history of the use of Pier 36 is not completely known. In November 1908, before construction of Pier 36 began, it was announced that, as "a combination of wharf and freight slip," it would be leased to the Western Pacific Railroad. Besides the Belt Railroad, this was the first non-Southern Pacific rail facility on the waterfront between Market Street and China Basin. Western Pacific appears not to have lasted long in this location, however. In an undated photograph at the National Maritime Museum taken no later than early 1913, the inshore facade of the transit shed was painted with a large sign including the words: "Panama; California-Atlantic Steamship Company; Freight Services; New York-Philadelphia-New Orleans; Bates & Chesebrough, General Agents, Merchants Exchange." According to an article in the *San*

Francisco Call in January 1913, Bates & Chesebrough was abandoning its Panama service and giving up Pier 36: "The applicants for pier 36 included Parrott & Co. who want it for the steamers of the East Asiatic Company; the Charles Nelson Company; the Southern Pacific Company; J. C. V. Comfort, who wants it for a line the name of which he is not at liberty to make public for a few weeks, but which will come to San Francisco if it can get docking accommodations; the Luckenbach Steamship Company; and the Pacific Mail Company, whose business has outgrown its present accommodations." The Harbor Commission said that "the wharf would probably not be assigned at all, but kept open for general use." (*San Francisco Call*, 10 January 1913). It appears to have been rented to Luckenbach — on 22 January 1914, the chief engineer recommended to the harbor commissioners "that a two story office building be constructed at Pier 36 for the Luckenbach Steamship Company."

In 1918, seawall lot 21, across the Embarcadero from Piers 34 and 36, was leased for five years to Toyo Kisen Kaisha, a Japanese steamship line which appears also to have been at Pier 36 by that time. Toyo Kisen Kaisha, which merged with Nippon Yusen Kaisha in 1924, occupied Pier 34 and Pier 36 for many years. By 1935 it moved to Pier 37 (SFAH n.d.:Pier 36 property file).

According to a report of the U.S. Army Corps of Engineers, Pier 36 was not assigned to any shipping company in 1933, but the pier was used by the Argonaut Steamship line for intercoastal service (Board of Engineers for Rivers and Harbors 1933:118). In 1939, Pier 36 was operated by the Kingsley Navigation Company of California (Board of Engineers for Rivers and Harbors 1939:43). In 1952, it was operated by the Belt Railroad and Todd Shipyards Corporation (Board of Engineers for Rivers and Harbors 1952:30). By 1959, Pier 36 was operated by Pacific Ship Repair (SFPA) who remained until at least 1962 (Board of Engineers for Rivers and Harbors 1962:29). Today, it is occupied by the Delancey Street Foundation as a warehouse for a moving and storage business.

Pier 38

See also Section 12 of the bulkhead wharf (Contributing Resource).

Description

Summary

Pier 38 was the second of a group of three piers (including Pier 36 and Pier 40) built of reinforced concrete in 1908-1909 — all originally without decorated pier fronts. Construction of this group marked the beginning of the modern reconstruction of the port. The original portion of the substructure and transit shed of Pier 38 constitutes the second oldest pier on the waterfront and an early example of reinforced concrete construction by the Board of State Harbor Commissioners.

Pier 38 was built in four phases. Most of the substructure and transit shed were built in 1908-1909, with a rail spur running down the middle of the shed. This rail spur was found to be inadequate, and in 1916 it was removed and replaced by a depressed rail spur built on a widened north apron. In 1931-1932 Pier 38 was considerably enlarged. The substructure was lengthened by 241 feet, to a total length of 900 feet; the transit shed was lengthened similarly; and a flush rail spur was built onto a widened south apron. In 1934-1935 a long bulkhead building measuring approximately 450 feet in width was built in front of Piers 38 and 40, filling the area between them along the bulkhead wharf.

Today about 314 feet of the bulkhead building, including the portion in front of Pier 38, survives. Currently the wall on the south side of Pier 38's transit shed is being replaced with new concrete structures, and the openings in the wall are being enlarged.

Substructure

The substructure of Pier 38, built in phases in 1908-1909, 1916, and 1931-1932, has reinforced concrete piles beneath the transit shed and creosoted timber piles beneath the north apron. The nature of the piles beneath the south apron is uncertain. A photo in the Biennial Report of the Board of State Harbor Commissioners shows that steel I-beams spanned the piles beneath the shed (BSHC 1910:between 26 and 27). The deck is reinforced concrete, save in the north apron, where it is wood.

The north apron was inaccessible for viewing for this report, but it was possible to see that a small portion of it has collapsed or been removed. Of the south apron, the rear third has

collapsed, but the flush rail spur is present in that portion which survives. A few mooring cleats remain on the south apron. Others have been removed and have been distributed to various places in the bulkhead building.

Transit Shed

The transit shed, built in 1908-1909 and extended in 1932, has a steel frame and reinforced concrete walls. The roof is concrete and is supported by steel trusses and I-beams. It rises to a monitor over the central of three aisles. A reinforced concrete partition five bays from the end wall divides the transit shed into two spaces. The transit shed has only one fire baffle, made of corrugated metal.

Windows in the walls and monitor have fixed steel sash and wire glass. In the rear (east) elevation, there is a large segmental arched central window flanked by smaller rectangular windows. Doors in the side and rear walls are steel roll-up doors. One door opening in the north wall and four in the south wall have been enlarged, and it appears that all of the remaining doors in the south wall are about to be enlarged as the concrete structure of the south wall is replaced.

Bulkhead Building

The steel frame bulkhead building, built in 1934-1936, is a blend of Mission and Mediterranean revival in style. It features a monumental pavilion with a central arch, a gabled roof with wood bargeboard and carved purlins and rafter ends, and Spanish tiles on the roof. The surface of the building is coated in stucco. The arch is filled by a roll-up metal door, a transom bar of sheet metal, and a large steel sash window in the arch, or transom area. Two paneled doors for pedestrians have been replaced by solid metal doors. Cast iron letters spelling “Pier 38” can be found above the arch. The composition is topped by a flagpole.

The bulkhead building originally linked Piers 38 and 40 along the bulkhead wharf. Monumental gabled pavilions with arched entrances at the inshore ends of each pier were flanked by lower, two-story wings. There were three bays in the wing north of the Pier 38 entry pavilion, fourteen bays between the two entry pavilions, and one bay south of the Pier 40 entry pavilion. The bays — of varying widths — were defined by a pilaster order and capped by a red-tile roof. Two of the bays were large open portals for rail spurs. The rest were glazed in steel industrial sash — set

in large, single openings on the ground floor and in two or three separate small openings on the second floor . Of the two portals for rail spurs, the one five bays south of the monumental pavilion is still filled by a roll-up metal door, while the one ten bays south of the pavilion is now filled by a new steel sash window and sliding glass door. In the eighth bay south of the pavilion are paired wooden doors with full-length glazing covered by an original steel canopy, or marquee.

The portion of the bulkhead building at the head of Pier 40 — consisting of the entry pavilion, four bays to the north, and one bay to the south — was demolished sometime between 1975 and 1983. The remaining portion of the bulkhead building — associated with Pier 38 — consists of the entry pavilion, three bays to the north, and ten bays to the south.

Construction History

Development of plans for Pier 38 began after money became available for new construction under a $2,000,000 bond issue approved in November 1904. With the first sale of these bonds on 8 March 1906, specific plans were developed for new sections of the seawall and for "permanent docks, built of concrete and steel, complete monolithic structures" (Stafford 1910a:27/3). Until this time all of the port's piers were wood structures (except for some experimental concrete piers that were failing), subject to rapid deterioration and demanding of continued high levels of costly maintenance and repair. According to the president of the Board of State Harbor Commissioners, W. V. Stafford, when Pier 40 was nearly complete, construction began on Pier 38, followed by Pier 36. These were the first three permanent reinforced concrete piers in San Francisco. All three were built according to similar engineering designs. In relation to Pier 40, "Pier 38, differing slightly in engineering detail, was commenced March 15, 1909 and was completed on September 8, 1909, at a cost of $288,600." Speaking of all three piers, Stafford wrote:

> These docks are built on solid concrete piers, having a structural steel floor and shed with a reinforced concrete slab on the floor. The supporting piers are constructed by driving a steel cylinder of a diameter greater than the base of the pier, excavating the mud and water down to hardpan and erecting thereon a reinforced concrete cylinder pier. After the concrete pier is erected the steel

> cylinder is removed and used again. The floor slab is six inches thick, reinforced with half inch bars on nine inch centers. The floor slab and steel frame are calculated to carry a live load of 500 pounds per square foot. The shed walls are reinforced concrete six inches thick. The roof slab is two and three-quarters inches thick, reinforced with wire cloth and covered with five ply felt and gravel roofing.
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> The relatively short time taken in the construction of these docks, taking into consideration the magnitude of the work, is due to the penalty and premium system established by the board. By this system the board exacts a penalty per diem for each and every day's delay in the completion of the work beyond those specified in the contract. The premium is a per diem payment to the contractor for each and every day the work has been completed in advance of the time specified. (Stafford 1910a:26)

When they were completed, Stafford described them as "practically imperishable" (Stafford 1910a:26).

In addition to their structural features, these piers were "provided with railroad tracks for the economical and speedy handling of freight. The tracks on the piers will permit cars to be switched into position, so that the cargo handled can be either loaded or discharged direct, thus saving time and team haul" (Stafford 1910a:26).

Plans for Pier 38 were dated 15 October 1908, prepared by "J.G.L." (unknown) under the supervision of Ralph Barker, Assistant State Engineer, including the pier and transit shed.

When Piers 38 and 40 were completed, another important feature of their construction was noted: "Piers of the type of No. 38 and No. 40 are fireproof, no wood having been used in their construction. It is impossible for rats to get in or out of them when the doors are closed" (BSHC 1910:36).

Following the initial construction of Pier 38 with a central rail spur, changes were made in the biennium 1914-1916.

> The center track originally built on this pier having proved unsatisfactory, it was decided to replace it by a depressed track on the northerly side. This required the construction of an addition, 20 feet wide and 540 feet long, supported on creosoted piles, carrying a timber deck, covered with a seal coat of hot asphalt and coarse sand and having the standard creosoted pile fender line (BSHC 1916:36-37).

Drawings for this addition were prepared by Oliver W. Jones under the supervision of Jerome Newman, Chief Engineer. This work was completed by Healy-Tibbits Construction Company, 2 November 1916, at a cost of $22,429.23 (BSHC 1919:92).

As a matter of policy, the Board of State Harbor Commissioners announced its intention to lengthen several piers, including Pier 38, in the Biennial Report of 1920-1922 (BSHC 1923:25). When this was finally completed, the Board reported:

> In order to permit of all operations of the McCormick Steamship Company being consolidated at Piers 38 and 40, Pier 38 was extended 241 feet, making the total length 900 feet, approximately the same as Pier 40. At the same time it was widened and a flush railroad track was constructed on the south side. The track addition was of creosoted piles and timber and the extension was of reinforced concrete.
>
> The transit shed on the Pier 38 extension was constructed under the same contract as the substructure. It is 117 feet 6 inches in width and 248 feet in length, making the total length of the shed 887 feet. It has a structural steel frame with cast in place reinforced concrete walls, steel rolling doors and wired glass in steel sash in the windows and monitors.
>
> The extension to Pier 38 was completed on May 31, 1932. (BSHC [1932]:19)

Drawings for this work were prepared with A. W. Nordwell in charge, under the supervision of Frank G. White, Chief Engineer.

In the Biennial Report for 1926-1928, the Board reported: “Pier 38 is equipped with pipelines connecting with a battery of privately operated tanks for the storage of Oriental Vegetable Oils,

molasses, etc. Large quantities of these products arriving at this port are pumped directly from ship to tanks" (BSHC [1928]:15).

To further improve the facilities for the McCormick Steamship Company, plans were prepared by the Department of Engineering for a large bulkhead building that stretched from Pier 38 to Pier 40. Following an elevation drawing dated 29 December 1931, detailed plans dated 19 June 1934 were prepared. These were prepared in charge of H. B. Fisher under the supervision of Frank G. White, Chief Engineer. This bulkhead building provided gabled entrance pavilions with large arched openings for rail cars at the head of each pier, linked by a two-story structure that was 40 feet wide and stretched 455 feet along the bulkhead wharf. According to the Biennial Report of 1934-1936, "The building is a steel frame structure with metal lath and plaster walls, steel sash, and steel rolling doors at the main pier and railroad entrances . . . The entire second floor is occupied by offices and the first floor is used for offices, ship's stores and cargo." Photographs show the steel frame of the building under construction and the Mediterranean style of the front, with stucco walls, red tile roofs, and bracketed eaves (BSHC 1938:52-53).

The early tenants of Pier 38 are not known. By 1927, Pier 38 was operated by Associated Terminals Company. By 1933 it was operated by McCormick Steamship Company. McCormick, with routes to the West Indies, the East Coast of the United States, and the Pacific Coast, remained here until at least 1939. In 1952, Pier 40 was operated by Pope and Talbot, an old West Coast lumber company and shipping firm. In 1962, it was operated by the Associated-Banning Company.

Pier 40

See also Section 12 of the bulkhead wharf (Contributing Resource).

Description

Summary

Pier 40 was the first of a group of three piers (including Pier 36 and Pier 38) built of reinforced concrete in 1908-1909 — all originally without decorated pier fronts. Construction of this group marked the beginning of the modern reconstruction of the port. The substructure and the

surviving portions of the transit shed constitute the oldest pier on the waterfront and an early example of reinforced concrete construction by the Board of State Harbor Commissioners. Like Pier 38, the substructure and transit shed of Pier 40 were built in 1908-1909, and a bulkhead building linking the two piers was built in 1934-1935. In recent decades the bulkhead building in front of Pier 40 has been removed. Likewise, much of the front portion of the transit shed has been removed.

Substructure

The substructure of Pier 40 appears to remain largely as it was built, with a 6-inch reinforced concrete slab measuring 130 by 650 feet supported on a grid of reinforced concrete piles. The piles were constructed by an experimental method using steel cylinders driven into the mud as forms. The railspurs, fender piles, mooring cleats, and mooring bitts have been removed.

Transit Shed

The transit shed is a steel-frame structure with 6-inch poured concrete walls and a 2¾-inch poured concrete roof. The transit shed was originally twenty-three bays long with steel rolling doors in each bay and steel sash in the monitor. The two ends were of undecorated concrete. The nine westernmost bays and the steel sash have been removed. The western wall, originally poured concrete, is now wood. Except that the transit shed is only about two-thirds of its length from the time it was completed in 1909 to the beginning of construction on the bulkhead building after June 1934, it is similar in appearance to that era (see photo in BSHC 1910:facing p. 38). Inside, a painted wood sign reading “No Smoking” remains, suspended from a roof truss.

Bulkhead Building

The bulkhead building that was built at the head of the pier in 1934-1935 was removed between 1975 (Cameron 1975:35) and 1983 (see Pier 38, above).

Construction History

The earliest record of planning for Pier 40 is a *Plat of Survey* prepared by Ralph Barker, Assistant State Engineer for the Board of State Harbor Commissioners, dated 1 June 1900. This plat showed an outline of “Proposed Pier 40” projecting from seawall section 12 (the site on which it was later built) across the site of the “Old Mail Dock.”

Further development of plans for Pier 40 did not take place until money became available for new construction under a $2,000,000 bond issue approved in November 1904. With the first sale of these bonds on 8 March 1906, specific plans were developed for new sections of the seawall and for "permanent docks, built of concrete and steel, complete monolithic structures" (Stafford 1910a:27/3). Until this time all of the port's piers were wood structures (except for some experimental concrete piers that were failing), subject to rapid deterioration and demanding of continued high levels of costly maintenance and repair. According to the president of the Board of State Harbor Commissioners, W. V. Stafford, "The construction of pier 40, the first dock of its kind, was begun November 1, 1908, and completed on June 26, 1909, at a cost of $303,200." Pier 38 and Pier 36 were built shortly afterwards along the same structural lines (Stafford 1910a:26):

> These docks are built on solid concrete piers, having a structural steel floor and shed with a reinforced concrete slab on the floor. The supporting piers are constructed by driving a steel cylinder of a diameter greater than the base of the pier, excavating the mud and water down to hardpan and erecting thereon a reinforced concrete cylinder pier. After the concrete pier is erected the steel cylinder is removed and used again. The floor slab is six inches thick, reinforced with half inch bars on nine inch centers. The floor slab and steel frame are calculated to carry a live load of 500 pounds per square foot. The shed walls are reinforced concrete six inches thick. The roof slab is two and three-quarters inches thick, reinforced with wire cloth and covered with five ply felt and gravel roofing.
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> The relatively short time taken in the construction of these docks, taking into consideration the magnitude of the work, is due to the penalty and premium system established by the board. By this system the board expects a penalty per diem for each and every day's delay in the completion of the work beyond those specified in the contract. The premium is a per diem payment to the contractor for each and every day the work has been completed in advance of the time specified.

When they were completed, Stafford described them as "practically imperishable" (Stafford 1910a:26).

In addition to their structural features, these piers were "provided with railroad tracks for the economical and speedy handling of freight. The tracks on the piers will permit cars to be switched into position, so that the cargo handled can be either loaded or discharged direct, thus saving time and team haul" (Stafford 1910a:26).

Plans for Pier 40 were dated 22 June 1908, prepared under the supervision of Ralph Barker, Assistant State Engineer, including the pier and transit shed. A modified plan for "Elevation and Window Details" was dated 3 September 1908.

In an experiment to keep costs down, bids were solicited for two designs, differing in the spans required between piles, and advertisements for bids were "run in three issues of the *Engineering News*, New York" instead of just locally. The winning bid by Robert Wakefield "was not only the lowest of 10 submitted, but was $40,000 less than the estimate made by State Engineer Ralph Barker." While the Harbor Commissioners were pleased to undertake their first concrete pier, "M. J. Mertena, formerly a contractor on the water front, filed with the board a protest against awarding the contract on the ground that permanent construction costs too much money" (*San Francisco Call* 11 August 1908b).

Immediately after the pier was completed, plans were prepared on 30 June 1909 for "Partitions in Shed on Pier 40." These consisted of rooms in the four corners of the transit shed. At the Embarcadero end in the northwest corner was a clerk's room with a counter, a desk, and a pay window. In the southwest corner were a clerk's room with lockers and a pay window, a freight room, and two toilets. The rooms at this end of the building were equipped with radiators, wash basins, and "electric drop lights." At the opposite end of the transit shed on the north side of the central doorway were a baggage room and a storeroom. In the southeast corner were a store room, a baggage room, and a stevedore's toilet room with a trough urinal and six toilets labeled "6 seat range closet." The spaces at the east end of the transit shed had electric lights but no heat or running water.

When Piers 38 and 40 were completed, another important feature of their construction was noted: "Piers of the type of No. 38 and No. 40 are fireproof, no wood having been used in their

construction. It is impossible for rats to get in or out of them when the doors are closed" (BSHC 1910:36).

According to plans dated 25 January 1917, the north apron of Pier 40 was extended by twelve feet to accommodate a depressed rail spur. This was to replace the original central rail spur which proved an impediment to cargo loading. Other alterations and additions were made according to plans dated 19 February 1925, including, apparently at that time, the lengthening of the pier to accommodate longer ships (BSHC 1923:25) in association with the consolidation of "all operations of the McCormick Steamship Company . . . at Piers 38 and 40" (BSHC [1932]:19).

To further improve the facilities for the McCormick Steamship Company, plans were prepared by the Department of Engineering for a large bulkhead building that stretched from Pier 38 to Pier 40. Following an elevation drawing dated 29 December 1931, detailed plans were prepared dated 19 June 1934. These were prepared in charge of H. B. Fisher under the supervision of Frank G. White, Chief Engineer. This bulkhead building provided gabled entrance pavilions with large arched openings for rail cars at the head of each pier, linked by a two-story structure that was 40 feet wide and stretched 455 feet along the bulkhead wharf. According to the Biennial Report of 1934-1936, "The building is a steel frame structure with metal lath and plaster walls, steel sash, and steel rolling doors at the main pier and railroad entrances . . . The entire second floor is occupied by offices and the first floor is used for offices, ship's stores and cargo." Photographs show the steel frame of the building under construction and the Mediterranean style of the front, with stucco walls, red tile roofs, and bracketed eaves (BSHC 1938:52-53).

That portion of the bulkhead building at the head of Pier 40 was demolished sometime between 1975 and 1983.

The early tenants of Pier 40 are not known. By 1927, Pier 40 was operated by McCormick Steamship Company. McCormick, with routes to the West Indies, the east coast of the United States, and the Pacific Coast, remained here until at least 1939. In 1952, Pier 40 was operated by West Coast Terminals, Inc. and was also used by the Coastwise Line. In 1962, it was operated by the Pacific Far East Line.

Java House (near Pier 40)

See also Section 12 of the bulkhead wharf (Contributing Resource).

Description

This is a one-story, flat-roofed wood-frame lunch room that is built on the bulkhead wharf immediately south of Pier 40. Its construction date is unknown. The building measures roughly 50 feet in width by 20 feet in depth. It is built with two wings — a rectangular wing parallel to the shoreline on the south, and an irregular four-sided wing that angles inland on the north. The rectangular wing houses the kitchen and appears to be the older of the two. The other wing was built after 1949. The building is clad in v-groove siding. The non-original wood door has an upper light, and most of the fixed windows have aluminum sash. A painted sheet metal sign reading "Java House Breakfast Lunch" is mounted on the building. The interior has been generally remodeled with a plaster finish.

Construction History

The 1949 Sanborn map shows a structure on this site (Sanborn Map Company 1949:volume 2, p. 118) whose footprint is the same as the rectangular southern wing of this building. The northern wing was added sometime after 1949.

A search of various sources failed to turn up additional information about this building. Sources investigated include architectural and engineering drawings at the port; photograph collections at the port, the ILWU, and the San Francisco Maritime Museum; records of the port's legal department; the biennial report of the Board of State Harbor Commissioners; and telephone and city directories.

Pier 48

See also Pier 48 Section of the bulkhead wharf (Contributing Resource).

Description

Summary

Pier 48 consists of a pier substructure on which two transit sheds are built. The substructure was designed in 1926 and was completed in 1928, and the transit sheds, complete with their architectural fronts, were built in 1929-1930. In 1937-1938, a connecting shed was built between the outshore ends of the two transit sheds. Following a fire in 1996, the outshore end was rebuilt.

Substructure

The substructure of Pier 48, built in 1928-1929, is 369 feet in width and measures 610 and 635 feet long on its north and south sides, respectively. The outer aprons of Pier 48 are made of wooden piles, caps, stringers and decks. The substructure beneath the transit sheds is of reinforced concrete.

Five rail spurs can be found at Pier 48. A flush spur exists on each of the outer (north and south) aprons; that on the north apron has been covered with asphalt. Three rail spurs are in the depressed area between the two transit sheds, one next to each shed and the other running down the middle. In 1936-1938, the outer end of the depressed area between the transit sheds was decked over.

Fender piles are attached to the sides of the outer aprons. Mooring cleats can be found mounted along the north apron; only one is left on the south apron.

Transit Sheds

There are two transit sheds on Pier 48, built in 1929-1930; the northern shed is named “Shed A,” and the southern shed “Shed B.” They are located side by side, with a depressed track area running between them. Each of these sheds has an ornamental front.

Each shed is constructed with a steel frame and pre-cast reinforced concrete walls. A wood roof is laid on steel rafters supported by steel trusses and I-beams, and rises to a central, gabled monitor that runs the length of each shed. Windows in the walls and monitors have fixed steel sash, and all windows (except in the fronts of sheds A and B) are glazed with wire glass. Roll-up

metal doors are found in every wall of both transit sheds. According to plans, some of these were widened in 1955 and 1958.

The interior of each transit shed remains open as a large space divided into three aisles by the steel I-beams that support the roof trusses.

In 1937-1938 a connecting shed was built between the transit sheds at the outshore end of the pier. The entire east end of the transit sheds was rebuilt after a fire in 1996. The outer walls of the rebuilt portion of the sheds is scored to create a harmonious appearance with the pre-existing portions of the sheds.

The transit sheds on Pier 48 have architectural fronts that are similar in treatment and level of detail to the fronts of other piers. The style of these fronts is Gothic. They are similar to the fronts of one other pier in San Francisco, Pier 45.

The two sheds have nearly identical fronts. The south shed is 120 feet in width and the north shed is 102 feet in width, but other than this difference in size all details are the same in each pier. Each has a central pavilion with a monumental Gothic arch bordered by pairs of monumental piers. The central pavilion is flanked by flat roofed wings, with three bays to the north and three to the south. The front is covered with stucco, and plaster panels with Gothic arches can be found at the tops of each bay and across the top of the arch. The central pavilion is topped by a flagpole.

The arch is filled by a steel roll-up door, a sheet metal transom bar, and a transom window filled with steel sash. A wooden, metal-clad door with upper lights can be found to the side of one monumental arch; the other three pedestrian doors are modern replacements. Windows of steel sash fill each of the flanking bays. Cast iron letters reading “Pier 48 — Shed A” and “Pier 48 — Shed B” can be found mounted onto the transom bars in the monumental arches.

Construction History

In the Biennial Report of 1924-1926, the Board of State Harbor Commissioners announced plans for Piers 45 and 48:

> Plans have been adopted for two modern piers of mammoth size which will be built as soon as possible to meet fast-growing commerce and accommodate the largest freighters. One of the great piers, which will be built at the foot of Taylor street on the north bay front, will be 1200 feet long and 382 feet wide and will be No. 45. The other new pier will be on the south front 610 feet long and 376 feet wide. This pier will extend into very deep water near Mission Rock and will be No. 48. (BSHC 1926:12-13)

In the same Biennial Report, the Chief Wharfinger was optimistic about the impact of these new piers.

> The present Board of State Harbor Commissioners, through vision of the future development of this great harbor of ours, has heralded a new era of adequate facilities which, naturally, means quick dispatch of cargoes and added pier space, which in turn avoids the expense of piling and affords the possibility of many other necessary eliminations. (BSHC 1926:48)

A proposal for a larger version of Pier 48 with four sheds — like Pier 45 — was published in the Biennial Report in 1922-1924 (BSHC 1924:52). When the pier and its sheds were under construction, the Board of State Harbor Commissioners described them as follows:

> When completed as projected, Pier 48, located south of Channel street and adjacent to Pier 50, will be more than 1200 feet in length, providing two berths on each side. The width, 369 feet, will also permit of docking a smaller vessel across the end. An investigation of the foundation, however, revealed a submerged valley partially filled with extremely soft material, crossing the site of the pier about 800 feet from shore. In order to construct across this valley it will be necessary to deposit a large quantity of stable material into which to drive the foundation piles. This was not considered desirable at this time, and it was decided to first construct the pier of approximately one-half the ultimate length. In fact, to render this possible, it was necessary to deposit 76,000 cubic yards of second class rock and permit it to settle before beginning construction.
>
> Pier 48 as now being constructed is 369 feet in width and 623 feet in length. The construction is of reinforced concrete except for the aprons carrying the two flush shipside tracks on each side, which are of creosoted pile and timber construction. In conjunction with the pier a section of concrete bulkhead wharf 500 feet in

> length and 55 feet in width is being constructed. There will be two transit sheds and between the sheds there will be located three depressed railroad tracks and a double driveway. (BSHC [1928]:39, 41)

Plans for the substructure of Pier 48, dated 1 April 1926, were prepared by Oliver W. Jones, in charge, under the supervision of Frank G. White, Chief Engineer. The contract for construction was awarded to Healy-Tibbitts Construction Company on 7 March 1928. The substructure was completed 17 July 1929 at a cost of $586,322.98. Plans for the two sheds on Pier 48, dated 12 March 1929, were prepared by H. B. Fisher and B. P. Hudspeth, in charge, under the supervision of Frank G. White. The contract for construction was awarded to L. M. King on 23 May 1929. The work was completed 12 March 1930 at a cost of $181,080.61 (BSHC 1931:75).

During the Biennium of 1936-1938, Sheds A and B were joined together:

> Pier 48 is 369 feet in width by 624 feet in length with a center depressed track and driveway area between two transit sheds, the width between the shed walls being 64 feet. In order to permit full use of a berth at the outer end of the pier, a portion of the depressed area was decked over and a connecting building 137 feet in length was constructed between the two sheds.
>
> The platform was constructed of timber and was paved with asphalt. The building is a timber structure with steel rolling doors and steel sash. The work was completed and accepted by the Board on January 13, 1938. (BSHC [1938]:52)

In 1955 and 1958, new wide doors were built on the sides of Sheds A and B. In 1977, doors in the connecting shed were enlarged.

In 1933, Pier 48 was not occupied (Board of Engineers for Rivers and Harbors 1933:71). In 1939, it was operated by Swayne & Hoyt, Ltd. and Balfour-Guthrie & Company. From 1945 to 1956, Shed A was operated by the Isthmian Steamship Company and Shed B was operated by Calmar Steamship Company. By 1960, Shed A was taken over by Pacific Ports Service Company. After a fire in 1996, the outshore end of Pier 48 was rebuilt and in 2002, the deck between sheds A and B was strengthened as part of a seismic retrofit project. (Port of San Francisco 2004).

NON-CONTRIBUTING RESOURCES

BULKHEAD WHARF SECTION B

See also Franciscan Restaurant (Non-Contributing Resource), Pier 43½ Section 8 (Lost Feature), Pier 43 (Car Ferry Headhouse) (Contributing Resource), and Pier 45 (Contributing Resource).

Description

Section B of the bulkhead wharf is located on Section B of the seawall, a 1,000-foot long structure that stretches from the foot of Powell to the foot of Taylor Street.

Section B of the bulkhead wharf appears to be a rebuilt version of a wood wharf that has existed here since it was rebuilt in 1914 in association with two car ferry slips (Slip no. 1 and Slip no. 2). According to the 1912-1914 biennial report, the bulkhead wharf was "carried out in timber on the same plan as the slips." As built, this was "of creosoted piles carrying a timber deck planked with Oregon pine." (BSHC 1914: 53).

It is unclear what, if anything, survives from the 1914 design. The surface materials have all been replaced and the surfaces redesigned for parking and handling of tourists. The tracks of the Belt Railroad have been removed. The redesigned and rebuilt structures that framed the slips outshore of the bulkhead wharf are now known as Pier 43 (on the east) and Pier 43½ (on the west). Pier 43½ and the rebuilt slips between it and Pier 45 are outshore of the district boundaries. Pier 43 is a non-contributing feature which surrounds the Pier 43 Car Ferry Headhouse. The southeast edge of Pier 45, built in 1926-1929 at Section B, is part of a Contributing Resource.

Construction History

Section B of the seawall, 1,000 feet long, was built in 1890-1893. Little is known about the history of the bulkhead wharf in Section B. A map at the end of the 1906-1908 biennial report showed a wood bulkhead wharf along the length of Section B. There were no piers in Section B and no buildings or structures shown on the bulkhead wharf at that time. The map at the end of the 1910-1912 biennial report showed an outline of proposed ferry slips in Section B. The slips

and the bulkhead wharf were not otherwise mentioned in the report. The 1912-1914 biennial report described new car ferry slips built along Section B: "In conjunction with the contract for the car ferry slips, the adjacent bulkhead is being reconstructed to carry tracks, this work being carried out in timber." (BSHC 1914: 53). The Pier 43 car ferry headhouse was built at this time.

Except for the north portion of Section B, which was rebuilt with the construction of Pier 45, no further references to the Section B bulkhead wharf have been located in port records until 1965. Drawings prepared by the Department of Engineering for the "Pier 43½ Remodeling" show a wood bulkhead wharf extending outshore of the "bulkhead wall" — the seawall — at that time. As a wood pile and timber structure, this has required continuous maintenance or reconstruction to survive. The remodeling of Pier 43½ — the north half of the 1914 car ferry slip complex — reconfigured the wood ferry slips to serve tourist ferries. The same drawings show the late 1950s Franciscan Restaurant on a concrete slab outshore of the seawall. It is not clear if the Franciscan Restaurant is located on the bulkhead wharf, considered to be a structure that spans from the top of the seawall to the water front line, or on a connecting wharf outshore of the water front line.

FRANCISCAN RESTAURANT, NEAR PIER 43½

See also Pier 43½ (Lost Feature) and Section B of the bulkhead wharf (Non-Contributing Resource).

Description

The Franciscan Restaurant is a two-story structure in a modern design built in the late 1950s on or adjacent to the bulkhead wharf near Fisherman's Wharf. The Franciscan Restaurant is on a 1950s concrete slab outshore of the seawall. It is not clear if it is on the bulkhead wharf, considered to be a structure that spans from the top of the seawall to the water front line, or if it is partly or wholly outshore of the water front line. The walls of its upper floors are glass, providing views — especially toward San Francisco Bay on the north.

Construction History

The Franciscan Restaurant was built in the late 1950s. Its history and use are unrelated to any of the themes or areas of significance identified in this nomination. Although it is a restaurant, it is for tourists rather than waterfront workers and does not contribute to the district.

PIER 41½ (PORTIONS ON THE BULKHEAD WHARF)

See also Section A of the bulkhead wharf (Non-Contributing Resource) and Pier 41 Section 8 (Lost Feature).

Pier 41½ was designed along with a two-story building on its surface in 1980 by Treffinger, Walz and McLeod for Harbor Carriers, Inc. (a division of the Crowley companies). Pier 41½, which supports the building on its generally triangular plan surface, lies between Pier 41 and Pier 43.

The area was named Crowley Plaza and the building initially served as headquarters for the Red & White Fleet, which provided tourist, ferry, and tugboat services. The Red & White Fleet was succeeded in the building by the Blue & Gold Fleet, a similar operation. The site of the building is partly on the new pier and partly on the bulkhead wharf within the boundaries of the historic district.

Pier 41½ was built as part of the same project in which Pier 41, a Lost Feature, was redeveloped (Sanger 2004).

Section A

See also Pier 41 (Lost Features) and Pier 41½ (Non-Contributing Resource).

Description

Summary

Section A of the bulkhead wharf is in two parts. The easternmost 393 feet is a reinforced concrete structure built in 1914 together with Pier 41. The westernmost 168 feet was built at an unknown time with wood piles encased in concrete. Around 1980, Pier 41 was removed along

with the Pier 41 bulkhead building in association with the construction of tourist Pier 39, modern Pier 41, Pier 41½ and facilities for ferry boats. Section A of the bulkhead wharf was resurfaced with new landscaping and improvements at that time.

Description

Section A of the bulkhead wharf is located on Section A of the seawall which is 561 feet long. Section A of the bulkhead wharf appears to be in two parts, the easternmost 393 feet built of reinforced concrete and the westernmost 168 feet which has wood piles encased in concrete.

The easternmost part of Section A of the bulkhead wharf was built in 1914 in association with Pier 41. The details of the construction of this part of the bulkhead wharf are not known. As this structure has been described as similar to the bulkhead wharf at Piers 2, 19, 29, and 39, it is probably supported on alignments of concrete piles from the seawall to the water front line.

The westernmost part of Section A of the bulkhead wharf is only known from a fragment which was exposed in April 2004. This part is supported on wood piles encased in concrete.

Since the end of the period of significance, Pier 41 and the Pier 41 bulkhead building and transit shed have been removed. Around 1980, the entire surface of Section A of the bulkhead wharf was redesigned with landscaping and other improvements. The Embarcadero roadway was moved further inshore of the seawall and a continuation of the waterfront park built in association with the tourist Pier 39 was created over much of the bulkhead wharf, the seawall, and the new inshore area left over from the re-aligned Embarcadero. A wooden structure called Pier 41 and a wharf and structures for ferry boats have been built at Section A, outshore of the district boundaries. Pier 41½, including a two-story building on its surface, was built in 1980 inside the district boundaries.

The substructure of Section A of the bulkhead wharf appears to remain largely intact, except for the portion that was removed for the Red-and-White/Blue-and-Gold building. However, its surface and the way it is perceived have been completely altered. The rail spurs have been removed, the working asphalt paving has been replaced by new materials of the waterfront park,

and the relationship of the bulkhead wharf to the seawall has been altered by the re-alignment of the Embarcadero.

Construction History

Section A of the bulkhead wharf was built together with Pier 41 in 1914 from the foot of Powell Street to the foot of Stockton Street. It was built on section A of the seawall which was built in 1879-1880. Section A is 561 feet long.

Section A of the bulkhead wharf and Pier 41 were built under a contract dated 29 April 1914 and were completed 19 November 1914. The structures were built by the San Francisco Bridge Company for $128,298.16. (BSHC 1916: 91). The pier substructure was a wood structure with creosoted wood piles. However: “In conjunction with the pier there is to be constructed under the same contract a section of reinforced concrete bulkhead wharf back of the pier and 149 feet easterly therefore; this is identical in design with the wharf adjoining Pier 39.” (BSHC 1914: 46-47). The design was also the same as Piers 19 and 29. From this description, a reinforced concrete bulkhead wharf was built from the west end of Section 1 to the west side of Pier 41. No record has been found of construction of a reinforced concrete bulkhead wharf in Section A west of Pier 41, a distance of 168 feet.

After the pier and bulkhead wharf were completed, the Board of State Harbor Commissioners reported, “Pier 41 was constructed in 1914 without a shed and was used for handling bulk cargoes, especially lumber. The need for covered space, however, became so pressing that it was decided to construct a shed on this pier . . . The building is a timber frame structure . . . Later it is the intention to extend the shed to the inner end of the pier and to construct a bulkhead building across the front.” A photograph of the completed shed that appeared in the biennial report for 1916-1918 showed the inshore end of the shed to be a gravel and sand bunker for the Standard Crushed Rock Company (BSHC 1919: 16, 41).

According to the next biennial report, for 1918-1920, “In 1918 a shed was built on Pier 41, but it did not cover the inner end of the pier on account of the location of rock bunkers at that point. In May 1919, these bunkers were moved to the bulkhead wharf between Piers 41 and 43 and the shed on the inner end of Pier 41, and the adjacent bulkhead wharf was constructed. This

building has a frontage of 354 feet on the Embarcadero and adds 28,500 square feet of covered space to the pier shed. The length is now 1,062 feet and the width 160 feet, making this the largest pier shed on the waterfront. The shed on Pier 41 was completed in September 1919." A photograph of the completed bulkhead building appeared in the biennial report. (BSHC 1921: 40, 126). When the rock bunkers (93 by 26 feet) were moved to the bulkhead wharf between Piers 41 and 43, they were still on Section A of the bulkhead wharf. This structure was removed by 1949 (Sanborn Map Company 1949).

The history of Section A of the bulkhead wharf is associated with the history of Pier 41, its early use for bulk cargoes, its predominant use as a covered pier, and the operation of Belt Railroad spurs to Pier 41.

Pier 41 was still standing in 1973. By about 1980, the Pier 41 substructure, the transit shed, and the bulkhead building were removed for construction of the tourist Pier 39, new Pier 41, and Pier 41½. Most of the reinforced concrete Pier 41 bulkhead wharf remains, covered by landscaping associated with Pier 39.

Section 1

See also Pier 37 Section 8 (Lost Feature), Pier 39 Section 8 (Lost Feature), and tourist Pier 39 (Non-Contributing Resource).

Description

Summary

Section 1 of the bulkhead wharf is in two parts built in 1913-1914 and in 1914-1915. These are reinforced concrete structures built, from north to south, in association with old Pier 39 and old Pier 37.

Since the end of the period of significance, old Pier 37 has been demolished and Pier 39 has been enlarged with new construction at its end and along its sides for tourist Pier 39 and associated developments. The transit shed and bulkhead building on old Pier 39 have been demolished. The Belt Railroad has been removed and the surfaces of the bulkhead wharf have been covered in new materials and landscaping for non-maritime purposes. A portion of section 1 of the

bulkhead wharf and substructure was removed in the 1980's for the construction of an aquarium on the south side of Pier 39.

Description

Section 1 of the bulkhead wharf is in two parts built on section 1 of the seawall which is 1,000 feet long and was built in 1878-1879. The two parts form an obtuse angle in plan. Section 1 stretches from the foot of Stockton Street on the north to the foot of North Point Street on the south.

The northernmost of the two parts of Section 1 of the bulkhead wharf was built in 1913-1914 in association with old Pier 39. It stretches 456 feet along the Embarcadero and is 44 feet wide for most of its length. Originally, its southernmost 175 feet angled from the water front line to a point offshore of the water front line from south to north. A plan and section of Pier 39 show that the bulkhead wharf was supported on alignments of five concrete piles from the seawall to the water front line (BSHC 1914: 37). No other detail is known about this structure.

The southernmost of the two parts of Section 1 of the bulkhead wharf was built in 1914-1915 in association with Pier 37. "The contract for this pier also included the construction of a reinforced concrete bulkhead wharf 45 feet wide and 607 feet long." Its design is the same as Pier 11 in Section 5, Pier 29 in Section 3, and Pier 39 in Section 1 of the bulkhead wharf. (BSHC 1916: 36).

A plan and section of this part of Section 1 of the bulkhead wharf shows the deck supported on alignments of five concrete piers between the top of the seawall and the water front line. At the north end, the bulkhead wharf originally angled offshore from the water front line to a point on the north side of Pier 37 for 169 feet, from north to south. (BSHC 1914: 40). No other detail about the design of the bulkhead wharf is known.

With the demolition of old Pier 37 and the alteration of old Pier 39 in 1973-1980 for the construction of tourist oriented complex Pier 39 and associated developments, the Belt Railroad was removed and the deck of Section 1 of the bulkhead wharf was resurfaced. The new surface was designed for a water front park and includes materials not used during the period of

significance. As part of the development of tourist Pier 39 and the waterfront park, the alignment of the Embarcadero roadway was moved inshore of the seawall 80 to 100 feet. The surface of the bulkhead wharf, the top of the seawall, and the new area between the seawall and the Embarcadero has been resurfaced and landscaped to create a waterfront park so that not only are the surface materials unrelated to the historic district, but also the relationships between the bulkhead wharf, the seawall, the Embarcadero, and the waterfront line are no longer discernible.

The substructure of the bulkhead wharf itself appears largely intact except where part was demolished for the Aquarium of the Bay, designed by Esherick, Homsey, Dodge, & Davis in 1990 and completed in 1995. The Aquarium of the Bay is located in the southeast corner of tourist Pier 39 and sits in part on extant portions of the bulkhead wharf, and in part on a new structure that replaced portions of the bulkhead wharf and extends beyond the edge of the bulkhead wharf. In addition, two of the main buildings of tourist Pier 39 extend inshore over portions of the bulkhead wharf.

Construction History

Section 1 of the bulkhead wharf was built in two phases from 1913-1915. It was built on top of section 1 of the seawall, built in 1878-1879. Section 1 of the seawall is 1,000 feet long. Prior to the construction of the reinforced concrete bulkhead wharf in sections 1 and 2, a large grain shed stood on the old wood bulkhead wharf at the south end of Section 1.

The first part of Section 1 of the bulkhead wharf was built under a contract dated 20 February 1913, together with Pier 39. The work was completed 2 July 1914 by Healy-Tibbitts Construction Company at a cost of $441,966.72 (BSHC 1916: 83). “In addition to the pier, the contract included the construction of two adjacent sections of reinforced concrete bulkhead wharf, 44 feet wide and extending back of the pier and 144 feet westerly and 175 feet easterly there from” (BSHC 1914: 45). Plans show that altogether, this portion of the bulkhead wharf stretched 456 feet along the Embarcadero. It measured 175 feet along the water on the south side of the pier where it ran in a straight line from the water front line at its south end to a point offshore of the water front line at its meeting with Pier 39. This portion of the bulkhead wharf was designed by Charles Newton Young under the supervision of Jerome Newman, Assistant State Engineer on plans dated 19 October 1912. (BSHC 1914: 37).

At the time of its original construction, Pier 39 was built without a bulkhead building. During the period 1930-1932, a bulkhead building was built on the bulkhead wharf. The Pier 39 transit shed and bulkhead building were demolished between 1973 and 1980 when construction began on the new tourist pier, also called Pier 39. The bulkhead wharf and the old Pier 39 substructure remain.

The second part of Section 1of the bulkhead wharf was built under a contract dated 17 September 1914, together with Pier 37. This work was completed 3 June 1915 by Healy-Tibbitts Construction Company at a cost of $211,134.10. "The contract for this pier also included the construction of a reinforced concrete bulkhead wharf 45 feet wide and 607 feet long of the same design as that used at Pier 39" (BSHC 1916: 36, 98) — and Pier 11. Pier 29 is in Section 3 of the bulkhead wharf and Pier 11 is in Section 5 of the bulkhead wharf. Pier 37 was a wood structure that was demolished between 1975 and 1980 prior to construction of the tourist Pier 39. This portion of the bulkhead wharf was designed under the supervision of Jerome Newman, Assistant State Engineer on plans dated 6 April 1914. The signature of the designer is illegible on the drawing published in the biennial report (BSHC 1914: 40).

In 1937, a connecting wharf was built between Pier 35 and Pier 37 extending from the outshore edges of Sections 1 and 2 of the bulkhead wharf, which formed a continuous line along the water front line, out into the bay. When the connecting wharf was completed, a shed was built that stood partly on the bulkhead wharf associated with Pier 35 in Section 2, partly on the bulkhead wharf associated with Pier 37 in Section 1, and partly on the new connecting wharf. This was described by the Board of State Harbor Commissioners at the time it was built:

> The need for adequate facilities for the handling of intercoastal package cargo has been definitely established and the adaptability of connecting bulkhead wharves and buildings at the shore ends of the piers has been satisfactorily demonstrated by the use of two such structures over a period of several years. During the biennium another facility of this type was constructed between Piers 35 and 37.. . . The wharf and building were completed and accepted by the Board on May 13, 1938. (BSHC [1938]: 51)

This was designed by H.B. Fisher under the supervision of Frank G. White, Chief Engineer, 14 May 1937.

The history of Section 1 of the bulkhead wharf is associated with old Piers 39 and 37 and the operation of the Belt Railroad, until their demolition (except for the old Pier 39 substructure) after the period of significance in 1973-1980. Since that time, although obscured by new construction, it is associated with the tourist Pier 39.

PIER 39 (PORTIONS ON THE BULKHEAD WHARF)

See also Section 1 of the bulkhead wharf (Non-Contributing Resource), Pier 39 Section 8 ___ (Lost Feature), and Eagle Cafe Section 8 - (Lost Feature).

Description

Pier 39 is a tourist-oriented pier of restaurants and shops built after 1978 in part with re-used materials in the style of New England waterfront structures. It incorporates the 1914 reinforced concrete substructure of old Pier 39. The inner extent of Pier 39, including landscaping, two of the main buildings, and Aquarium of the Bay, is built on the bulkhead wharf within the boundaries of the district.

Construction History

Pier 39 was designed in 1978 and modified in the early 1980s, both by Walker and Moody. The Aquarium of the Bay was added at the southeast corner of Pier 39 in 1990 to 1995. (Sanger 2004). Tourist Pier 39 was built after the period of significance and is unrelated to the district in its history or use. It is not a contributor to the district.

PIER 29 OFFICE BUILDING

See also Section 3 of the bulkhead wharf (Contributing Resource), Pier 27 Section 8 (Lost Feature), and Pier 29 (Contributing Resource).

Description

This is a two-story International style structure. It has a flat roof and overhanging eaves with a broad valence. Its Embarcadero frontage is symmetrical in composition with a central recessed entry and continuous bands of windows on each floor. A neon sign in the window above the door reads "Marine Insurance." It is located on the bulkhead wharf between Pier 29 and Pier 27.

Construction History

The history of this structure is unclear. According to the January–February issue of *Portside News*, a publication of the San Francisco Port Authority, the port was completing plans which included "Remodeling of the two-story bulkhead face of Pier 27 (which no longer exists) to provide about 16,000 square feet of modern office space" for the Pacific Far East Line (*Portside News* 1962). In other words, although Pier 27 had been demolished, the Pier 27 bulkhead building was still standing and was about to be remodeled.

This appears to be contradicted by plans prepared at the same time (dated 28 February 1962) which show a newly designed structure for "Office Building, Pier 29" – the same building that exists today. It is not known if some portion of the Pier 27 bulkhead building is incorporated in this structure.

At the time it was built, it was located at a site immediately south of the Belt Railroad Office, known as Pier 29 Annex. The name suggests that its original use was attached to Pier 29. From 1965 to 1967, the Pier 27 Terminal was built around this building. A 1983 photograph showed the name "Pearl Cruises" in large letters across the valance (SFAH n.d.: Pier 29 property file). This was built or remodeled after the period of significance and is not a contributor to the district.

PIER 27 TERMINAL

See also Section 3 of the bulkhead wharf (Contributing Resource), Section 4 of the bulkhead wharf (Contributing Resource), and Pier 29 (Contributing Resource).

Description

Pier 27 Terminal is a large triangular complex with one side formed by Pier 29. Its substructure, designed in 1965, consists of prestressed concrete pilings and a reinforced concrete deck. It includes "470,000 square feet of open and covered area for the handling of cargo" with a "1,340 foot long wharf" and a transit shed that stretches from "the outer end of Pier 29 to within a few feet of Pier 23." The transit shed is a steel and concrete structure, designed in 1966-1967, that covers 210,000 square feet (San Francisco Port Authority 1966:16).

Construction History

The substructure for Pier 27 Terminal was designed according to plans dated June 1965. Transit shed plans were dated August 1966 and January 1967. Its construction was celebrated in the 1966 *Port of San Francisco Ocean Shipping Handbook*. According to the port, it "embodies all the engineering achievements for the modern age of shipping, providing facilities for the swift and efficient loading and discharge of ships, trucks and trailers, and railroad cars . . . The deck has the capacity to handle any type of cargo, including large containers . . ." (San Francisco Port Authority 1966:16).

According to an undated clipping, Pier 27 Terminal was later known as Pier 27-29. Under the management of Marine Terminals Corporation, the port director anticipated "an increase in tonnage, especially in newsprint and project movements" (SFAH n.d.: uncited clipping in Pier 27 property file).

Pier 27 Terminal was built after the period of significance and is not a contributor to the district.

PIER 15-17 QUAY

See also Section 5 of the bulkhead wharf (Contributing Resource), Pier 15 (Contributing Resource), Pier 17 (Contributing Resource), and Terminal Office Building, Pier 15-17 (Non-Contributing Resource).

Description

In 1955-1956, Piers 15 and 17 were expanded to the north and south, respectively; a connecting shed was built between their eastern ends; and a wharf was built over the water between these two piers. These features remain intact as built. The expansion of Piers 15 and 17 is discussed with those piers, but the connecting shed and driveway are treated here. When Piers 15 and 17 were linked in this way, the entire complex was called a quay-type terminal.

A one-story shed connects the eastern ends of Piers 15 and 17. The east and west walls are each made of stud framing and v-groove exterior siding resting on a concrete base that is three feet in height. A steel sash window with wire glass forms a wide band across the top of each wall. Two roll-up steel doors can be found in the east wall, and one is in the west wall. The shed employs steel trusses to support a gabled roof of very shallow pitch. There is no north or south wall, as these sides are open to the transit sheds of Piers 15 and 17. Corrugated metal fire baffles are affixed to the roof trusses where the connecting shed meets the adjoining transit sheds. A painted wood “No Smoking” sign is suspended from a roof truss. Two cast iron mooring bitts are mounted onto the concrete apron just outside (east of) the east wall of the shed, and fender piles are attached to the side of this apron.

The area bounded by Pier 15, Pier 17, the connecting shed, and the Embarcadero has been filled and paved with asphalt. This area is depressed relative to the two piers, forming loading docks at the pier aprons. Rail spurs can be found in this depressed area adjacent to each pier. This depressed area is sometimes referred to as the Pier 15-17 valley by Port Engineering Staff.

Pier 15-17 Quay is a non-contributor because it was built after the period of significance and is less than fifty years old. It is included within the boundaries of the district because it is connected to two contributors, Pier 15 and Pier 17.

Construction History

The Pier 15-17 Quay is a connecting wharf with sheds that link Piers 15 and 17. It was designed in plans dated 14 October 1953. The plans were approved 10 August 1955 by S. S. Gorman, Chief Engineer. It was described in a 1956 publication of the Board of State Harbor

Commissioners: "Just completed is a third quay-type pier, combining piers 15 and 17. This pier has the first pre-stressed concrete pilings used in U.S. pier construction. Its area is 388,000 square feet, including 260,000 square feet covered by transit sheds along each side and across the outer end of the pier. The entire pier now serves as the homeport terminal for Pacific Transport Lines-States Line." The existing transit sheds on Piers 15 and 17 were each "made 40 feet wider" with extensions toward the center of the complex. "The central area was built 3½ feet below the shed floors, to permit one-level loading and unloading of trucks and railroad cars." The cost was $2,000,000 (BSHC [1956]:7).

TERMINAL OFFICE BUILDING, PIER 15-17

See also Section 5 of the bulkhead wharf (Contributing Resource) and Pier 15-17 Quay (Non-Contributing Resource).

Description

A small, one-story building called the Terminal Office Building was built in 1956 in the depressed area of the Pier 15-17 Quay near the Embarcadero. This was originally called the "Terminal Office Building," according to plans. It is located between Piers 15 and 17, near the Embarcadero sidewalk. The bulk of the building is rectangular in plan, but smaller projections, an office and a guard room, can be found on the front. The roof of the building is a very slight-pitched gable with a painted roof top sign: "Parker Warehouse, Inc."

Walls are sheathed in wood v-groove siding, save for the guard room in the front of the building, which has vertical wood siding. Doors are wood, with glazing, and windows are fixed, in wood frames. The interior is finished in plaster.

Construction History

The Terminal Office Building was built in 1955-1956 as a checkpoint for trucks and rail cars entering and leaving the central area of the Pier 15-17 quay-type terminal.

PIER 7 (WATERFRONT RESTAURANT)

See also Section 6 of the bulkhead wharf (Contributing Resource).

Description

The building now housing the Waterfront Restaurant is a portion of a much remodeled bulkhead building for Pier 7. It was originally built as a larger structure in 1915-1916. It was partially destroyed by fire in 1973 and this portion was remodeled in 1973. This is a two-story rectangular structure on the bulkhead wharf. Like other bulkhead buildings, this is a timber-frame structure. Its walls are clad in stucco and its Embarcadero facade is divided into three bays by pilasters of large stacked blocks. Like Piers 1-3-5 and 29-31, this fragment of Pier 7 was once part of a linear bulkhead structure that alternated between the gabled ends of transit sheds with large arched entryways and flat-roofed bulkhead connectors housing offices. This fragment of Pier 7 retains three bays of a bulkhead connector. The windows on each floor and the central entrance have all been enlarged and reglazed, using dark-tinted glass.

Construction History

Pier 7 was built in 1902 (BSHC [1938]:55). The wood pier itself — without any bulkhead building — survived the 1906 earthquake. Construction began on a new bulkhead wharf and a bulkhead building under a contract dated 18 November 1915. These structures were completed 24 August 1916 (BSHC 1919:88). The bulkhead building measured 30 by 300 feet; it was built of “timber covered with cement plaster” (BSHC 1916:37). Pier 7 was destroyed by fire in March 1973 (*San Francisco Chronicle* 1973). A fragment of the bulkhead building was salvaged and remodeled in plans dated September 1973 by E.S. Gibson, architect. From these plans stucco was removed and replaced on the exterior, windows and doors were changed, and interior spaces were reorganized (SFAH n.d.). The fragment of the bulkhead building that remains is part of the original north end of the structure. Drawings of this pier are unavailable in the port’s records.

Pier 7 was the long-time home of the San Francisco Bar Pilots until its destruction in 1973.

As a small, remodeled fragment of a bulkhead building, this is a non-contributor to the district.

Section 13

See also Pier 42 Section 8 (Lost Feature), Pier 44 Section 8 (Lost Feature), and Pier 46 Section of the bulkhead wharf (Contributing Resource).

Description

Summary

Section 13 of the bulkhead wharf was built of reinforced concrete in two parts. The first part, measuring 539 by 46 feet, was built in 1917-1918 in association with the reconstruction of Pier 42. The second part was built in 1935-1936 as a single structure that ran from the unnumbered section of the bulkhead wharf to the south, to the north side of Pier 44. This entire structure measured 600 feet long. Since the end of the period of significance, Piers 42 and 44 and their transit sheds and bulkhead buildings have been removed. The surface of the bulkhead wharf is covered with landscaping associated with the post-1985 South Beach Harbor marina outshore of the water front line.

Although no alterations to the structure of the bulkhead wharf are known, its presence is not discernable because of the altered shoreline and park improvements on the surface.

Description

Section 13 of the bulkhead wharf was built in two reinforced concrete sections on section 13 of the seawall, which is 600 feet long. Section 13 stretches from north to south from the foot of King Street to the former location of the Second Street wharf between Berry and Second streets.

The first part was built in 1917-1918 in association with the reconstruction of Pier 42. This part of the bulkhead wharf measures 539 feet along the waterfront and 46 feet from the top of the seawall to the water front line. No details are known about this structure.

The second part of the Section 13 bulkhead wharf was built in 1935-1936. Covering part of Section 13 and part of the adjacent, unnumbered part of the bulkhead wharf to the south (Pier 46 Section), this structure is 600 feet long and 60 feet wide. It runs from China Basin to the north side of Pier 44. “The supporting members consist of timber piles protected by precast, reinforced concrete jackets. Along the section where additional fill is required a retaining wall

constructed of precast and cast-in-place reinforced concrete slabs is provided and the wharf deck is constructed as a relieving platform over the fill, for a distance of 14 feet back of the wall." (BSHC 1938: 53).

With the bulkhead buildings and adjacent piers removed, the surfaces of these portions of the bulkhead wharf have been refinished with landscaping features in association with the adjacent South Beach Harbor marina since the mid 1980s. Although no alterations to the structure of the bulkhead wharf are known, its presence is not discernable because of the altered shoreline and park improvements on the surface.

Construction History

Section 13 of the bulkhead wharf was built on section 13 of the seawall, a 600-foot long structure built in 1904-1905. Section 13 of the bulkhead wharf was built in two parts, associated with Pier 42 on the north and Pier 44 on the south.

The northern part of Section 13 of the bulkhead wharf was built first under a contract dated 1 November 1917. It was completed 11 July 1918 by Healy-Tibbitts Construction Company at a cost of $116,187.37. (BSHC 1921: 99). This structure was built together with a substantial reconstruction of Pier 42, which was originally built in 1906: "The contract also included a section of reinforced concrete bulkhead wharf 46 feet in width and 539 feet in length, and a bulkhead building at the inner end of the pier shed." (BSHC 1919: 35, 38). Pier 42 was extended in 1922-1923 (BSHC 1924: 51) and in 1934-1936 (BSHC 1936: 104).

At the southern end of Section 13, the history was more complicated. Board of State Harbor Commissioner's records show that substantial repairs were made to an existing wood Pier 44 (built in 1904) in the biennium 1914-1916 (BSHC 1916: 36, 39). Pier 44 was extended in the biennium 1922-1924 (BSHC 1924: 51) and again in the biennium 1930-1932 (BSHC 1932: 19).

In the biennium 1932-1934, plans were announced for "a reinforced concrete wharf to replace the existing wharf at Piers 44 and 46" and a two-story bulkhead building between Piers 42 and 44 (BSHC 1934: 19, 21). These structures, including approximately the south third of Section 13 and all of the adjacent Pier 46 Section of the bulkhead wharf between the south end of Section 13

and China Basin, were built under a contract dated 10 December 1935. They were completed 22 October 1936 by Healy-Tibbitts Construction Company at a cost of $101,273.22. (BSHC 1938: 98). According to the Board of State Harbor Commissioners, this work was undertaken because,

> The excessive cost of maintenance, and the unstable condition of the foundation of the bulkhead building at Pier 46, indicated the advisability of replacing the old timber wharf at this location with a reinforced concrete structure. The project includes the removal and reconstruction of the wharf from the north side of Pier 44 to the south side of Pier 46, the underpinning of the headhouse at Pier 46 and the construction of new foundations and a concrete deck, rock filling to stabilize the seawall, the driving of replacement piles under Pier 46, the reconstruction of the Belt Railroad tracks in the vicinity and the paving of the wharf and a portion of the Embarcadero . . . With the completion of this structure, the reinforced concrete wharf and bulkhead will extend continuously from Powell Street to Third Street, a distance of approximately three miles. The work . . . is being partially financed by a P.W.A. grant." (BSHC 1938: 53-54)

In the biennium 1930-1932, plans were announced for "a connecting wharf and bulkhead building between Piers 42 and 44" (BSHC 1932: 29). Judging from the 1949 Sanborn map, this connecting wharf and shed appear not to have been built.

Piers 42 and 44 were still standing at the end of the period of significance. Pier 42 was partially demolished in 1975. The rest of it was removed between 1985 and 2001. Pier 44 was demolished between 1975 and 1983. The bulkhead wharf for Section 13, which survives, has been resurfaced and the shoreline has been altered in association with development of the South Beach Harbor marina since 1985.

Pier 46 Section

See also Section 13 of the bulkhead wharf (Non-Contributing Resource) and Pier 46 Section 8 (also Pier 46a) (Lost Feature).

Description

Summary

This is an unnumbered part of the bulkhead wharf between Section 13 and China Basin. It is a reinforced concrete structure built in 1922-1924. It is unusual in the barbell shape of the seawall and in its angled alignment away from the water front line. It was built inshore of Pier 46 as part of the China Basin Terminal Project.

Since the period of significance, this portion of the bulkhead wharf has lost Pier 46 and the China Basin Terminal superstructures which were removed for the San Francisco Giants ballpark, ferry landing, and marina. The surface of the bulkhead wharf is covered by landscaping and other improvements. Although no alterations to the structure of the bulkhead wharf are known, its presence is not discernable because of the altered shoreline and park improvements on the surface.

Description

This unnumbered part of the bulkhead wharf is 236 feet long, from the southern end of Section 13 of the bulkhead wharf to China Basin.

Information about the design of this portion of the seawall is limited. Built together with the seawall and wharf along the north side of China Basin (which are outside the district boundaries), the innovative design of the China Basin seawall is described in detail in the biennial report, while this portion of the seawall is described only as a reinforced concrete wing wall.

A site plan showing the footprint of the seawall showed a somewhat barbell shaped plan that is narrower for most of its length between bulbous ends. The inshore line of the barbell is identified as the crest of the seawall and the outshore line is the toe of the seawall. No information is known about the bulkhead wharf that spans from the crest to the toe of the seawall. This structure has an unusual alignment for a portion of the seawall-bulkhead wharf. It runs from near the junction with Section 13 inshore of the water front line to China Basin.

The seawall and bulkhead wharf are covered by landscaping and improvements associated with the San Francisco Giants baseball stadium and the South Beach Harbor marina.

Construction History

An unnumbered section of the bulkhead wharf was built in 1914 from the north side of China Basin to the north side of the Second Street wharf adjacent to the south end of Section 13 (BSHC 1914: 43). A contract for building this part of the bulkhead wharf, together with Pier 46, was dated 26 January 1914 and completed 21 September 1914. The work was performed by Healy-Tibbitts Construction Company for $163,835.30. (BSHC 1916: 84-85). The contract included a wood pier, repairs to an existing wood bulkhead wharf, and a transit shed on the pier. According to the biennial report, "In connection with this contract considerable work has been done in placing the adjacent bulkhead wharf in good condition." (BSHC 1914: 46). Because there was not yet a seawall in this area, this was not, strictly speaking, a bulkhead wharf — a more accurate term would be water front wharf. This wharf was built as if it was a continuation of the Section 13 bulkhead wharf.

Pier 46 "was destroyed by fire" 4 June 1916. "Portions of the deck along the north side of the pier were uninjured, and the majority of the creosoted piles were in good condition below high tide, but the shed and the greater part of the deck structure were entirely destroyed." After considering the alternatives, the port rebuilt the structure in wood. In addition, "A bulkhead building covered with metal lath and plaster was also planned, so as to harmonize with the front under construction on Pier 44. The pier construction was started by Harbor Commission forces but, later, contracts were let for the different parts of the work. The pier was completed in November 1917, the pier shed in December 1917, and the bulkhead building in February 1918." (BSHC 1919: 35).

A photograph of Pier 46 appeared in the 1916-1918 biennial report with a Belt Railroad spur, a horse, a tractor pulling a low flatbed wagon, and piles of lumber, all on the bulkhead wharf. (BSHC 1919: between 26 and 27).

No doubt an important consideration in deciding to rebuild Pier 46 and its bulkhead wharf in wood was the absence of a seawall below Section 13. In the biennial report for 1918-1920, the

Chief Engineer recommended improvements to the China Basin area including "a seawall extending from Third Street near the northerly end of the Channel Street bridge to the Embarcadero adjacent to Pier 46 and along the Embarcadero to connect with the existing seawall." A plan of this proposed seawall showed it curving to avoid all but the northwest corner of the bulkhead building for Pier 46 and following a diagonal alignment heading inshore of the water front line as it moved southward. (BSHC 1921: 52, 55). This would provide a seawall adjacent to, but largely inshore of, Pier 46. When construction was under way, the Board of State Harbor Commissioners described the seawall as "a main seawall extending from Third Street near the northerly end of the bridge over Channel Street to Pier 46; a wing wall extending northerly to a junction with the existing seawall between Piers 44 and 46; the filling of the area inside this seawall" and other structures to the west. (BSHC 1923: 33) This work was begun under a contract dated 9 February 1922 and completed 20 January 1924 at a cost of $742,676.06. The contractor was Healy-Tibbitts Construction Company.

This work was part of a larger project referred to as the China Basin Terminal. (BSHC 1924: 40-41) It is not known if the corner of Pier 46 was removed for this work. Although records do not mention it, the new seawall had to include a new bulkhead wharf extending from the top of the seawall to the toe of the seawall at the water front line. The result of this series of developments was an outer wood wharf at the water front line which was inaccurately referred to as a bulkhead wharf and an inner concrete bulkhead wharf and seawall.

By 1959, San Francisco Port Authority records described Pier 46 as Pier 46A, functionally linked to Piers 46B and 46C along the north side of China Basin. At that time, the original wood water front wharf was still standing. Sometime between 1959 and 1975, the Pier 46 transit shed and bulkhead building were removed. The wood pier and bulkhead wharf were removed by 2001, perhaps in association with construction of the new baseball stadium for the San Francisco Giants.

The 1922-1924 concrete seawall and bulkhead wharf are still in place in 2004, although covered by landscaping and other improvements associated with the baseball stadium and the adjacent marina. These changes extend outshore of the seawall so that, as has been the case since it was built, the alignment of the seawall here is not reflected in the alignment of the water front.

The history of this part of the bulkhead wharf is associated with the history of Pier 46 and China Basin Terminal. Since the period of significance, Pier 46 has been completely removed and the recent history of this portion of the bulkhead wharf is associated with the baseball stadium and the marina.