THE CLIFF HOUSE
Golden Gate National Recreation Area
San Francisco California

HISTORIC STRUCTURE REPORT

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SECTION 1  ADMINISTRATIVE DATA
1.1 Project Identification

The Cliff House structure and the adjoining North Annex have not qualified for listing in the National Register of Historic Places due to the lack of architectural integrity which has remained following the many alterations to the structures. This Historic Structures Report identifies the degree of intact historic integrity and other aspects of historic and architectural significance. The focus of the report includes the structural condition of both buildings, compliance with life safety and accessibility standards, and alternatives for treatment.

1.2 Description of Use

It is the continuity of recreational uses which gives this site its significance. The variety of food services, souvenirs, museums, curiosities, and viewing points have become the tradition of the Cliff House experience. It is expected that this mixed use of the site will continue in the future, although the accommodation of these activities will be improved.
SECTION 2  HISTORICAL DATA
2.1 Building/Site History

The Cliff House Site. West of the Golden Gate, San Francisco's coast sweeps along rock-bound headlands before dipping into a broad expanse of sand dunes and flat ocean beaches. The land dramatically meets the ocean in the flying surf, which beats against the rocks of Lands End and races up to the sands of Ocean Beach. The rugged character of this portion of San Francisco's waterfront has drawn the city's residents and visitors since the Gold Rush. By 1860, the Gold Rush had transformed the frontier outpost of San Francisco into a major American urban center, but the beach remained largely untouched and the undeveloped western shore of San Francisco continued to attract visitors drawn by the unique character of the area.

By the mid-1850's two structures were built on the shores of Ocean Beach. The Oceanside House stood at the foot of today's Sloat Boulevard, at that time the end of an old trail which connected Mission San Francisco de Assisi with the beach. The other structure was the Seal Rock House, which stood at the foot of today's Balboa Street. The Seal Rock House was supposedly built of timbers salvaged from a vessel shipwrecked on Ocean Beach; this may have given rise to the legend that the Cliff House had been built from materials salvaged from a shipwreck. Both the Oceanside House and the Seal Rock House were popular beach side attractions. In February of 1863 a visitor to the Seal Rock House noted that "this inn, kept by mine friend 'Smoke,' was speedily overrun with customers. A few crabs, and fewer muscles (sic) were soon devoured, and his liquors were also rapidly made way with."\(^1\)
Ocean Beach remained a public favorite through the 1860's, giving rise to plans to build a paved road across the San Francisco peninsula to reach the beach. The principal backers of the Point Lobos Road Company were Charles C. Butler and California State Senator John Buckley. The two men owned 160 acres of land at Point Lobos; Butler was particularly interested in the "development of the area as a fashionable seaside resort." Work on the road began in February 1863 when 50 kegs of black powder were used to begin blasting and grading the cliffs to allow the road to run down to the beach. While laborers graded and filled in the sand dunes near the road's beginning at Bush Street and Presidio Avenue, workers were engaged to chop the road bed out of the "ocean-bound precipitous steeps."

At the same location, on the Point Lobos bluff, work was also underway to erect a new hotel "which is to be erected at this point as a summer retreat for San Franciscans."

The ground on the extremity of the bluff is now being graded. The locality affords a splendid view of not only the ocean, but of the Golden Gate, and the entire country about. From this point one can pitch a biscuit into the sea. The Seal Rocks lie immediately in front of the Point, and not more than five hundred yards distant. The sea foam continually dashing against the jagged rocks at the base of the Point, enhances greatly the beauty of the panorama.

The Point Lobos Road was completed in March 1863 at a cost of $175,000. The 110-foot wide macadamized thoroughfare ran from the end of Bush Street at Presidio Avenue to the Point Lobos bluff, where the new hotel was under construction.

The First Cliff House, 1863-1894. Ground breaking for the new hotel at Point Lobos began in February 1863 as the bluff was being graded for the Point Lobos Road. The building was located at the western edge of the road, perched on the edge of the cliff overlooking the Seal Rocks. Actual construction of the building was underway by the end of March 1863, and in early May of the same year the work neared completion.

The hotel, which had been recently christened "Cliff House" by the owners, Butler and Buckley, was

... of fair dimensions, and, when finished, will be entirely encircled by a balcony. From the seaside piazza can be seen "the lions of the day," barking and basking on the rocks immediately under the cliff. The hotel, which will be finished by the first proximo, is to be kept, in all respects, as a first class house. As a suburban retreat, the Cliff House presents attractions unsurpassed. The majestic ocean, picturesque Golden Gate, Coast chain of hills, and long reach of sea beach, are some of the views that can be obtained from the balconies of the Cliff House.

In June of that year, the "new and elegant" Cliff House was opened by its proprietor, Capt. Julius Foster, late proprietor of San Francisco's International Hotel.

For the next three decades, the Cliff House served as a fashionable retreat for San Francisco's wealthiest citizens and their guests. A disapproving Marin County journalist described the clientele in 1869 as

... smiling men--neatly dressed actors, philosophers and poets, distinguished men and women of pleasure, of high birth, good position...Suffice it to say the Cliff House is a fashionable resort and
visited by fashionable people, who dance and flirt, eat and drink, walk or ride on the beach and indulge in all the dissipation it is possible for persons to engage in.\(^7\)

The appeal of the area brought visitors interested in more than dissipation. In describing an excursion "To the Cliff House," author Bret Harte praised the "unsurpassed grandeur" visible from the parlor, "where but a single pane of glass seemed to separate the comforts and refinements of civilization... from the rude jarring of elemental discord and Nature in her rudest aspect, beyond."\(^8\)

In 1868, the Cliff House was enlarged to three times its original size. Two wings, "each considerably wider than the original house," were added on each side of the building. The additions projected beyond its front, creating a sheltered porch fronting Point Lobos Avenue "with seats for those who wish to enjoy the sunlight and avoid the wind." A large new verandah on the back overlooking the Seal Rocks was "so arranged as to be readily turned into a dancing hall in a few minutes when required."

The south wing... will contain the ladies' parlor and accessories; and in the north wing will be a bar-room, reading-room, restaurant, card rooms, and other conveniences for gentlemen's use, while the old building will be cut up into minor rooms for the accommodation of parties, etc.\(^9\)
The Cliff House remained a popular spot for the city’s social elite. In January 1872, socialite Lillie Hitchcock Coit visited the Cliff House after a ride on Ocean Beach which made her “thirsty.” After sitting on the verandah, Coit and her friends adjourned inside for “two punches,” and noticed another group “consuming champagne by the bucket.”

The completion of a new paved road along the northern edge of Golden Gate Park in 1875 and the sale of the Point Lobos Road to the City and County of San Francisco in 1877 brought large numbers of people to Ocean Beach and the Cliff House. The formerly “exclusive” retreat increasingly became a popular resort. In 1876, the “Cliff” was the “mecca of our pleasure-seekers,” a lasting landmark that has held its own bravely through the many changes that have checkered the city’s brief career.

By the late 1870s there was more riotous and racy clientele. They reportedly came to play poker and entertain women other than their wives. In 1894, a reminiscence of earlier days admitted that “the old Cliff House was also a favorite resort of the bettaire of San Francisco. The piazzas used to be thronged with these gaily dressed nymphs, and the rooms resounded with their carousals, and Captain Foster looked happy and winked.”

The tarnished reputation of the resort was polished in 1881 when it was purchased by Adolph Joseph Heinrich Sutro. Sutro, a Prussian-born immigrant engineer and businessman, bought the property at a time when he was busily acquiring property in San Francisco. Sutro intended to maintain his fortune through selective buying, selling, and leasing real estate and this purchase added acreage to land Sutro had already acquired in and around Point Lobos. One particular plot, located on the cliff directly above the Cliff House, was the nucleus of Sutro’s private estate, Sutro Heights. He devoted his attention and energy to the development of Sutro Heights between 1881 and 1886; it was not until 1883 that he took an active role in its management.

Capt. Julius Foster’s lease had been renewed in 1880 just prior to Sutro’s acquisition of the property. In 1883, when Foster’s lease expired, Sutro ousted him. Between 1884 and 1886, the Cliff House was leased to San Francisco liquor merchants Hugh McCrum and G. E. Sheldon. Under McCrum and Sheldon the property lost money, despite Sheldon’s acquisition of a new partner, R. L. Moss, Jr., in 1886.
In 1887, Sutro leased the Cliff House to James M. Wilkins. He rented it for $700 per month, "as long as Sutro remained alive." The only condition was that he maintain it as a "respectable resort" without "bolts on the doors and... no beds in the house." Wilkins managed the resort successfully until 1907, despite two disastrous losses.\(^{14}\)

On January 15, 1887, the 80-ton two-masted schooner *Parallel*, of San Francisco, laden with hay, pig iron, kerosene, oak planks, and forty-two barrels of black powder ran aground on the rocks just south of the Cliff House. Abandoned by her crew just before she went ashore, *Parallel* lay on the rocks, pounded by the surf, until the powder in her hold was detonated by the jarring around midnight. The resultant explosion destroyed the vessel and seriously damaged the building.

Every window was smashed; even the frames and woodwork were being blown to matchwood. Doors were lifted off their hinges and blown across the room. The plastering was torn off in great sheets. The large balcony on the west side, from which visitors looked at the seals has huge gap in the middle and it was dangerous to venture out upon it.... The south Piazza lost one portion of its balcony. Had the explosion been a trifle more severe the building would certainly have fallen down the cliff into the sea.\(^{15}\)

The Cliff House was repaired and was soon back in business. Sutro intended to enlarge the building and in April and May of 1887 had graded the bluff behind the Cliff House to build a large four-story pavilion in the Gothic style, with a tower on each corner of the roof, and a pagoda at the center. An "elegant promenade" on the roof would surround seats for 3,000 visitors.\(^{16}\) Nothing was built. Work on the building through the 1890's involved repair and renovation; in 1889 the kitchen was relocated to the same floor as the restaurant, improving service. The parlor was partitioned with low alcoves "for ladies and gentlemen to take meals or refreshments." New water closets were constructed, the foundations were renewed, and the exterior was completely repainted in the summer of 1889.\(^{17}\)

The resort increasingly became a popular stop for all classes of San Francisco society, as was Sutro's intent. In his 1899 novel *McTeague: A Story of San Francisco*, author Frank Norris' working class protagonist, McTeague, walks to the Cliff House on a Sunday afternoon to hoist a mug of beer.\(^{18}\) Countless San Franciscans visited Ocean Beach, Sutro Heights, and the Cliff House in the early 1890's, enjoying its owner's philosophy of public recreation on the city's western shore. Unfortunately, they could not enjoy the Cliff House much longer. On the evening of December 25, 1894, the thirty-one year old landmark caught fire and burned to the ground.

The fire was caused by faulty chimney flue. "The fire was a hidden one between ceiling and walls... and when the flames found a vent there was a rush and roar of fire that could not be controlled." In less that two hours the building was completely engulfed. The fire destroyed everything except a few paintings, "the mirrors and easily movable furniture, the silverware, choice vintages and liquors, and part of the bar fixtures." On the morning of December 26, all that remained was "two tottering chimneys, the carved lion which stood guard at the stairway descending to the lower floor, charred timbers and ashes."\(^{19}\)

Public sentiment was in favor of rebuilding the resort. Standing among the ashes, "an enthusiastic capitalist, who had visited the place every fair day since it was built" suggested that the public raise funds to rebuild the Cliff House:

"We don't want anything Romanesque or Arabesque," said a venerable sportsman. "No Greek temple, Egyptian shrine or Queen Anne freaks. We Californians would like to see a new building as much like the old as can be made. A plain, old-fashioned Cliff House like that was burned up."\(^{20}\)

On December 26, Adolph Sutro announced that he would build a new Cliff House, overhanging the cliffs, looking over Seal Rocks. The new building, like the old, would be a frame structure. He noted that "the old Cliff House was built piecemeal, a bit being added from time to time. The new house will be more elaborate, much stronger, and more durable. It will be a pretty large building, and will be fitted up for a saloon and restaurant."\(^{21}\)
The Second Cliff House, 1895-1907. In 1888 Sutro had planned to build a large resort hotel similar to Monterey’s Del Monte Hotel or San Diego’s Coronado Hotel at a site adjacent to the Cliff House. The hotel site was cleared, but construction never began. With the building in ashes, Sutro selected San Francisco architects Emile S. Lemme and C. J. Colley to design and superintend the construction of a massive multi-story French chateau styled structure. An agreement was reached in February 1895, and by the summer the rubble of the old Cliff House had been carted away, the site graded and leveled, and massive iron rods had been anchored in the rock to help support the building’s foundation, which would overhang the supporting cliff.

When completed, the new five story high building would be surmounted by spires and a central tower in which an observatory would be located. An elevator connected all eight floors of the building, which rose 200 feet above the ocean. The basement contained the boilers, machinery, laundry, and rooms for the employees. The first floor, just below the road level, housed a concession stand where tourists could buy lunch and curios. The next floor, at street grade level, contained a restaurant with a large dining room, parlor, and bar. The third floor was subdivided into twenty private lunch rooms and a large art gallery. The fourth floor housed a photographic gallery, parlors, and a reception room. large open verandahs allowed visitors to promenade or sit in settees and easy chairs to take in the view.

The second Cliff House was completed in early 1896 and was opened to the public at a lavish reception hosted by Adolph Sutro on February 1, 1896.
James M. Wilkins continued the lease, even after Sutro's death in August 1898. The second Cliff House became the best-known, its imposing profile dominating the city's western shore. Its career was relatively short, however. In April, 1907, James Wilkins sold his lease to John Tait of San Francisco. Tait and his associates began to renovate the building, rewiring, replacing the plumbing, and remodeling the building for a November reopening.26 Their efforts were for naught, however, for an electrical short-circuit set the building on fire on September 7, 1907. Despite the "desperate efforts to save the far famed landmark," the second Cliff House, like its predecessor, burned to the ground as thousands of San Franciscans gathered to see the fire. "The big blaze, simultaneously enveloping every part of the building, swirled heavenward in a great column, twisting and roaring." Adolph Sutro's daughter, Emma Sutro Merritt, executrix of the father's estate, was not as quick as her father in deciding whether or not to rebuild, stating that it was "too early for her to decide."27

On September 8, 1907, however, John Tait and his associates announced that a new Cliff House would be rebuilt along the lines "of the squat structure which from 1863 to 1896 (sic) stood over the Pacific."28 A group of influential citizens announced that they had raised $200,000 in pledges to "throw out the proposal of John Tait," and build a new building, ... an antithesis of the wooden collection of turrets which artists called an abomination and said it had met a just fate in burning, will be erected, not for profit alone but to maintain traditions and reinforce the hold of the sea-lions' playground on world-wide fame. The backers of the project are willing to spend a million on sentiment and carry out their plans to rival the seaside palaces of Monte Carlo and Nice.29

In December 1907, as laborers worked to clear the rubble from the bluff, Emma Sutro Merritt decided to rebuild the Cliff House on her own.

The Third Cliff House: On January 27, 1908, Merritt applied for a blasting permit to clear away rock and brick at the Point Lobos bluff. The blasting facilitated the clearing of the Cliff House debris, and by the beginning of February 1908 the basement area had been reached and the boilers uncovered.30 In early March the site was surveyed, and in late April Merritt had retained the well-known San Francisco architectural firm of the Reid Brothers (who had previously designed such buildings as the Fairmont Hotel, the Call Building and numerous other commercial buildings after the 1906 earthquake and fire) to design the new Cliff House.
The building the Reid Brothers designed was a three-story reinforced concrete structure, in the Neo-Classical style, which was built up against the bluff to offer a single-story facade on Point Lobos Avenue. With their preliminary plans in hand, Merritt had the site staked out in October, 1908, and on October 21 applied for a permit to construct “a concrete structure” costing approximately $42,500. With permit in hand, on November 12, 1908 Merritt hired the San Francisco Re-Building Company, “specializing in Construction of Class A, B or C Buildings by contract or superintendent,” to build the new Cliff House. Work on the structure began immediately, and by the spring of 1909 the basic structure of the building stood completed. Throughout April, May and June, subcontractors worked to complete the interior of the building. Ornamental plaster work was done by A. R. Clarke, the Robert Dalziel, Jr. Co. undertook the plumbing, the Butte Electric Company completed the telephone system, the building was painted by A. C. Wocker, the Ralston Iron Works fabricated the marquee, and the windows were glazed by the W. P. Fuller Co. When the account books for the construction were finally closed in 1912, the total cost for the new structure stood at $56,613.23

The new Cliff House was opened on July 1, 1909. The opening night was crowded with scores of old patrons who found that the “entire place is fitted up with the utmost good taste” and rejoiced in “thankfulness of the revival of old times.” A large hall stood at the first level and faced an open promenade. A small coffee and curio shop also stood at this level. The second level, facing the road, contained a lounge, restaurant and dining room. There were problems with the new building, however. The poured-concrete roof had not cured correctly and a large crack leaked water into the building. In August, 1909 the crack was sealed and repointed, but unfortunately the crack was never adequately repaired, and the leaking roof continued to plague the building. Repairs to the roof and to water-damaged interior plaster continued to be undertaken in 1910, 1911, and 1912.
In May 1910, Merritt leased the Cliff House to the Cliff House Corporation, George Jones, President and L. J. Scoffey, Secretary. The lease included a detailed inventory of the furnishings of each room as well as a sketch of the layout of the first floor, providing a unique glimpse into the building's arrangement soon after its opening. This inventory is contained in the Appendix.37

Alterations and additions to the Cliff House began almost immediately. In 1909 a portion of the building was modified to create two stores; a shed was erected, and two frame buildings, including a 22 X 37 foot gift shop one hundred feet north of it were erected. In 1912 a two story addition was added to the north end of the building housing a saloon at the street level; a candy stand was added to the terrace, and the doors were changed in the main dining room, which was also partitioned. In 1913 a new gift shop was built to the north, and in 1914 two frame structures were built on the terrace to the west. In 1915, two more buildings, including a tea house, were added to the verandah.38

In 1918, the building was closed by order of the United States Army. The Army had banned the sale of alcohol within one-half mile of any active military post and in this case the Cliff House stood well within a half mile from the Fort Miley Reservation. In 1920, San Francisco restauranteur Richard P. "Shorty" Roberts secured a ten year lease on the building, and after redecorating and refurbishing the interior, opened the Cliff House once again on the evening of December 8, 1920.

A lavish party was held for some 450 guests who "participated in the rejuvenation of the establishment..."39 In 1922 Roberts installed a new front entrance and an addition on the north end housing a stairway from the main floor to the lower floor of the building, but his tenure was short. In 1925, the Cliff House was again closed. A coffee shop and the tea house continued to operate, but the building remained vacant for over ten years. In February 1936. Peter Schnoor of Berkeley wrote the editors of the Chronicle to lament the fate of the Cliff House, which he termed an "old, dead box."

Why do our public-spirited people that are now planning a world's fair and the completion of the
fitting monument and build a new Cliff House worthy of the name and place, an inspiration to our guests that enter the Golden Gate, as well as to all visitors to this greatest spot on the Pacific Coast.\textsuperscript{40}

In 1937, the property was purchased by San Francisco concessionaires George and Leo Whitney. George Whitney, owner and operator of the popular ocean side amusement park Playland-at-the-Beach, which stood just below the Cliff House on the Great Highway, remodeled the interior of the building and installed a new neon sign.\textsuperscript{41} It reopened in the summer of 1937 to an enthusiastic public response.

Between 1937 and 1973 George Whitney made many changes to the interior of the building, modernizing the kitchen facilities, providing fire escapes, redecorating the lounge and dining room, and enlarging the building. The greatest change was a $150,000 addition to the southeast corner in 1949. Some 3,150 square feet and an additional floor were constructed, enlarging the dining room's capacity to 275 and adding a special banquet room which could seat 150. The 1949 addition also created a new front facade, completely obscuring the original appearance of the building as seen from Point Lobos Avenue.\textsuperscript{42}

In February 1973, George Whitney closed the building. Whitney leased the building in April 1973 to a five-man group, "We Four," who owned The Pub at Geary and Masonic Avenues. "We Four" was approached by Whitney "because he realized it would take youthful thinking and a youthful operation to make the place successful."\textsuperscript{43} While leasing the building to "We Four," Whitney entered into negotiations with the National Park Service in early 1974 to sell the building to the Federal Government. According to Golden Gate National Recreation Area Superintendent William Whalen, an agreement was expected that summer to buy the Cliff House and 3.8 acres of property.\textsuperscript{44} Despite Whalen's prediction, the purchase lagged and was not made final until July 1977, when the National Park Service acquired the property for $3.8 million. The building was leased to concessionaire Danny Hountalas, who continues to operate the Cliff House as of 1986.

Since the National Park Service acquired the building, the interior has undergone some remodelling and cosmetic changes. The major work on the building since 1977 has been the repair and repainting of the exterior by Bill Wright Painting and Decorating Co. for $95,000 in 1979, and the installation of a new roof surface in 1984.\textsuperscript{45}
Figure 17. Third Cliff House, June 1987.
SECTION 2. HISTORICAL DATA

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1. San Francisco Daily Alta California (February 7, 1863).


3. San Francisco Daily Alta California (February 7, 1863).


5. San Francisco Daily Alta California (May 4, 1863).


7. *Marin County Journal*, San Rafael, California, (September 18, 1869).


11. San Francisco Daily Alta California (March 19, 1876).

12. Toogood. *A Civil History*, p. 48

13. San Francisco Morning Call (December 26, 1894).

14. San Francisco Chronicle (October 6, 1918).

15. San Francisco Chronicle (January 16, 1887).

16. San Francisco Morning Call (April 6, 1887).


19. San Francisco Morning Call (December 26, 1894).

20. San Francisco Morning Call (December 27, 1894).

21. San Francisco Morning Call (December 27, 1894).

23 *San Francisco Morning Call* (July 10, 1895).

24 *San Francisco Morning Call* (July 10, 1895).

25 *San Francisco Morning Call* (February 2, 1896).

26 *San Francisco Call* (September 8, 1907).

27 *San Francisco Call* (September 8, 1907).

28 *San Francisco Call* (September 9, 1907).

29 *San Francisco Call* (September 14, 1907).


31 *San Francisco Call* (October 22, 1908).


34 *San Francisco Call* (July 2, 1909).


38 Building Permits #22815, 23340, 52585, 42838, 24265, 55194, 61309, 62694, 2386. On file at the Central Permit Bureau, Department of Public Works, City and County of San Francisco, California.

39 *San Francisco Chronicle* (December 9, 1920).

40 *San Francisco Chronicle* (February 7, 1936).

41 Building Permits #25123, 25873, 28632, 27259, 27416. On file at the Central Permit Bureau, Department of Public Works, City and County of San Francisco, California.
42 Building Permit #119356. On file at the Central Permit Bureau, Department of Public Works, City and County of San Francisco, California.


44 San Francisco Chronicle (June 18, 1974).

45 San Francisco Chronicle (January 3, 1979).
2.2 Chronology of Development and Alterations

The following table is a summary of the major construction and alteration activities of the Cliff House which can be documented through existing records.

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<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>12-2-1907</td>
<td>&quot;Cliff House Re-construction&quot; begins</td>
</tr>
<tr>
<td>10-21-1908</td>
<td>Permit applied for to construct a new Cliff House ($42,000 estimated cost).</td>
</tr>
<tr>
<td>1908</td>
<td>Perimeter of the building staked out.</td>
</tr>
<tr>
<td>7-1-1909</td>
<td>New Cliff House opened.</td>
</tr>
<tr>
<td>1912</td>
<td>Frame addition constructed on the north side.</td>
</tr>
<tr>
<td>2-24-1922</td>
<td>Permit applied for to remove bearing walls; a new stairway is built on the north side of the 1912 addition.</td>
</tr>
<tr>
<td>1925-1937</td>
<td>Cliff House closed.</td>
</tr>
<tr>
<td>2-26-1937</td>
<td>Permit applied for to reopen the building.</td>
</tr>
<tr>
<td>1937</td>
<td>Building reopened with new walls, stairs, interior finishes.</td>
</tr>
<tr>
<td>1945</td>
<td>Major remodeling of second floor lounge including removal of the wall between the bar room &amp; dining room.</td>
</tr>
<tr>
<td>1949</td>
<td>South addition constructed consisting of a new three story frame addition containing a dining room, lounge, and storage facilities.</td>
</tr>
<tr>
<td>1954</td>
<td>Viewing terrace constructed on west side.</td>
</tr>
<tr>
<td>1954</td>
<td>Tramway constructed from Cliff House to Sutro Baths.</td>
</tr>
<tr>
<td>1955</td>
<td>Windows closed for fire doors.</td>
</tr>
<tr>
<td>1968</td>
<td>Veneer brick replaced and dry rot repaired on tower.</td>
</tr>
<tr>
<td>1973</td>
<td>New kitchen equipment, fire doors, false ceiling, and flooring installed.</td>
</tr>
<tr>
<td>1979</td>
<td>Exterior of the building repaired and repainted.</td>
</tr>
<tr>
<td>1984</td>
<td>New roof installed.</td>
</tr>
</tbody>
</table>
2.3 Statement of Significance

Since the 1850's the lands along the western coast of San Francisco have been a center of public recreation for the city's residents and visitors. The combination of a rugged shoreline and a white sand beach was an attraction which brought scores of people out to this part of the city's coastline. Taking advantage of the area's natural beauty and a new road from urbanized San Francisco, the first of three Cliff Houses was constructed in 1863. Since that time, a succession of buildings have been the center of social and recreational activities hosting Presidents of the United States, prominent business leaders, regional and local political leaders, a large number of social, fraternal, and religious organizations, and thousands of city residents and tourists. The Cliff House became a "must see" in San Francisco and throughout the 19th century visitors were invariably asked if they had been to the building. It has remained an important tourist attraction to this day and has retained its original entertainment and leisure activity uses.

The Cliff House has been an important site for both residents and visitors offering shelter, refreshments, meals, and diversion from everyday life. Successive buildings—three over the past 120 years—have all embodied similar functions thus providing continual recreational use of the site since 1863. It is from this aspect that significance can be attributed to the property; it has been and continues to be an important destination for viewing the Pacific Ocean and the coastline of California, and provides leisure activities through its restaurants, shops, and entertainment attractions. The site itself therefore retains its importance as a significant historic place through integrity of location, setting, and feeling and its association with important aspects of San Francisco history.

It becomes more difficult however, to assign significance to the present day building—the third Cliff House constructed in 1908-1909. Although the original construction date is more than old enough to meet the 50 year criteria, the third Cliff House has undergone numerous alterations over the years which caused the National Park Service to deny its eligibility for listing on National Register of Historic Places (1979). Specifically, the determination of ineligibility noted the changes to the present building as factors impairing its integrity to the point that the structure was not eligible for listing on the National Register. Even the major alterations, which may have gained significance in their own right have been compromised by unsympathetic modifications. The case which can be made for the significance of site cannot, in this instance, be applied to the building.

Restoration, which on occasion can be used to "correct" past transgressions to a historic property, is also problematic since there is not a clear cut period to which the building should be restored: the original structure was altered very early (1912) with a two story addition to the north and a new covered entrance portico on the east; major alterations were undertaken to reopen the Cliff House in 1937 after being closed for 12 years; and significant changes came in 1949 with a large addition to the southeast corner and a new front facade. Of the numerous configurations in which the Cliff House has found itself, three can be said to possess some significance—the original building, the property with its 1912 addition, and the property as modified in 1949. Between these three, however, there is not an obvious choice for restoration.

In summary, the Cliff House will, in all probability, continue to be used for fulfilling the leisure time needs of local residents and visitors to San Francisco. Whether this is accomplished in a new building or by rehabilitation of the existing structure, the traditional uses of the site and thus its integrity will be maintained.
SECTION 3 ARCHITECTURAL DESCRIPTION
3.1 Introduction

The Cliff House complex has been modified over time reflecting the changing needs of its clientele. Major construction has occurred in three primary phases:

- Original construction—1909.
- North addition—1912.
- South and east addition—1949.

The original 1909 building was a three-story rectangular reinforced concrete building in the Neo-Classical style. It featured a regular pattern of openings divided by pilasters across its four facades and is divided vertically by strong cornice lines at all floor levels and the parapet. Later additions have obscured all the facades to some degree. These additions themselves are examples of architectural styles popular in their time. The north addition was constructed immediately after completion of the original building and was made compatible by continuing its cornices and stucco surface. The addition to the south and east facades, however, were designed in 1949 and make no attempt to acknowledge the original structure. Instead, they reflect the Modern style, with cantilevered eaves, large windows, and a tall pylon.

The interior of the Cliff House similarly has been altered many times. Although a few elements of the 1909 construction survive, the majority of the existing interior features are from the 1949 remodelling or later.
3.2 Construction Systems

The 1909 portions of the building are constructed of reinforced concrete. The decision to use this material was based on two factors—the catastrophic loss, in 1907, of the previous wood framed building by fire and the popularity of reinforced concrete following the 1906 San Francisco earthquake and fire. The exterior walls are load-bearing, as is a wall running north-south at a distance of 24 feet from the west exterior wall. Reinforced concrete columns support the remainder of the building east of this wall. The roof and floor systems are concrete slabs over joists and girders; the joists run east-west. The foundation system is not accessible, but historical accounts indicate that solid rock had to be blasted away to create the site for the first Cliff House. Bearing on rock is therefore a virtual certainty, although the exact nature of the connections are not known at this time.

The 1912 and 1949 additions are both of wood frame construction. The 1912 addition is supported by 11"x13" timber columns on the first floor. The walls, floors and roof are also of wood frame construction.

The 1949 addition on the south and east sides is also of wood construction. The walls are built of 2"x6" studs at 16" on centers, with 1"x8" diagonal sheathing on the outside. Typical floors have 2"x12" joists at 16" on centers, and 1"x8" diagonal sheathing under 2"x6" tongue-in-groove flooring. The roof structure is composed of 2"x6" framing elements, and a wood underlayment under a built-up roof.
3.3 Exterior Description

3.3.1 North Facade
Additions to the north side of the original Cliff House took place in 1912 and after 1937. The 1912 addition is compatible with the original building in its surface material and certain design features—stucco and similar cornices, respectively. It is rectangular in massing, except for an angled corner (north west) on the first floor. The existing windows are large fixed-pane "picture windows" located on the second floor. The first floor windows have been closed, with the exception of a window in the angled northwest corner.

The later addition is similarly surfaced in stucco, although unornamented except for a simple molding above the first floor level. The only opening is a small fixed-pane window at the west wall.

3.3.2 East Facade
The east facade was completely remodelled in 1949 at the same time the south addition was constructed. A tall, thin pylon built to the north of the main entrance was originally surfaced with brick veneer, but was replaced with wood siding in 1968. Horizontal rows of fixed windows were placed on the second and third floors to the south of the pylon and plywood panels placed to the north of it. The facade is unified by a wide projecting canopy over the second floor level. This canopy is cantilevered off the wall in the southern portion of the building and is supported by paired steel pipe columns north of the pylon. The second floor has been altered further since the 1949 addition, including the addition of a bay window extending the north doorway and replacing the siding north of the pylon with narrow clapboards.

3.3.2 South Facade
The south addition, constructed in 1949, is the most significant alteration to the building, both in size and character. Over 5500 square feet were added, including a new third floor. The addition is contemporary in character. It is surfaced on the first floor level with long "roman" bricks laid in stack bond on the south and east facades, and stucco on the west facade. The remaining two floors are surfaced in horizontal redwood, originally unpainted, but which is now stained. Three foot wide horizontal fins
extend from the wall at each floor level and at the parapet. Windows are large fixed-sash plate glass windows.

### 3.3.4 West Facade
The remaining portions of the original 1909 building still visible include most of the west facade, and the westernmost three bays of the original north and south facades. These facades are divided vertically by simple Classical cornices at the each floor level and parapet. The main cornice, at the parapet includes a row of dentils. The west facade is divided horizontally by eleven bays, each with one window at each floor level. On the second floor level, each window is recessed from the wall plane, with a simple panel inset into the wall above. Historical photographs show that the pilasters between the second floor windows were treated with simplified Tuscan capitals and bases, removed in the 1920's, when the windows on the third floor, originally one-over-one double hung, were replaced with fixed sash windows. These windows are divided vertically by a horizontal muntin in the center, retaining the appearance of the original windows. The original windows of the first floor have been retained, except at the north and south facades, where the easternmost openings have been closed, and the central openings have been infilled with steel fire doors. The basement level was altered in 1954 when the space between the viewing terraces was enclosed; the only remaining feature are the original piers. This area is presently occupied by the Musée Mécanique.

### 3.3.5 Roof
All roofs on the Cliff House are flat. The roof over the original portion is surrounded by a parapet and has raised pads for mechanical equipment. An original chimney, treated with ornamental bands of moldings suggesting a cornice, is located near the center of the roof, and another, smaller in size and sealed over, extends up from the original north wall. Both these chimneys are covered with sprayed on urethane roofing. Part of this wall is visible above the roof level of the 1912 north addition, including a portion of the main cornice. The roof of the south addition is higher than the original roof, and similarly has mechanical equipment pads, as well sealed skylights. The present roof surface is a built-up roof, covered with sprayed-on urethane roofing.

*Figure 21. East Facade, Entrance. 1987*

*Figure 22. South Facade. 1986.*

*Figure 23. West Facade. 1987.*
3.3.6 Doors
None of the original exterior doors remain in the Cliff House. All the present doors are flat steel fire doors, except for two pairs of wood entrance doors with glass panels on the east facade, and a pair of wood doors with glass panels on the south facade which have been closed.

3.3.7 Windows
There are three general types of windows in the Cliff House: two are original, the third consists of more modern windows in the later additions. On the first floor of the original building are one-over-one double hung wood windows, while the windows on the second floor are fixed-sash wood windows with two lights arranged vertically, repeating the appearance of the windows below. The 1912 and 1949 additions have single pane fixed-sash aluminum windows in various dimensions. The east facade, in addition, has a bay window and an extended doorway which feature larger wood windows made up of many small panes.

3.3.8 Site Features
The Cliff House site is situated on high cliff above the Pacific Ocean near Seal Rocks and has many site features which take advantage of the prevailing views. Chief among these are the two viewing terraces to the west. Other features include the Giant Camera, two totem poles, a stone wall and a number of coin-operated telescopes.

Terraces. Important to the recreational function of the Cliff House are the two viewing terraces to the west and north of the building. The lower terrace, constructed at the time of the 1909 building, is at the same level as the basement floor. It is concrete slab on grade with a concrete block perimeter guardrail wall. In 1954, a second terrace was constructed at the first floor level and extended to the north, south and west of the building. This upper terrace is reinforced concrete supported on reinforced concrete columns with concrete block infill walls between columns.

Stairs. Two sets of exterior stairs lead to the upper terrace from the sidewalk—one on the north side of the building and one on the south. Both stairways are reinforced concrete. Two sets of stairs also lead to the lower terrace. One is a continuation of the stairs on the
north side of the building. The second is a set of wooden stairs located at the central west edge of the upper terrace.

**Giant Camera.** The Giant Camera is a 1949 feature located at the southwestern edge of the lower terrace. It is of wood frame construction, and features a rotating lens on its roof that projects a panoramic view of the surrounding area on a screen inside. Although the Giant Camera is outside the scope of this study, its location contributes to the heavy traffic on the lower terrace.

**Other Site Features.** Among other site features are two totem poles (which are actually one totem pole cut in half) and many coin-operated telescopes located along the western edges of the Cliff House complex. Other features include two brick planters at the east facade, and a system of staircases and intermediate platforms at the south side. A stone wall at the south side dates from the second Cliff House of the 1890's.

*Figure 27 (Left, top). East Facade, aluminum windows on third floor. 1987.*

*Figure 28 (Left, middle). West Facade, original window on first floor. 1987.*

*Figure 29 (Middle). West Facade, original window on second floor. 1987.*

*Figure 30 (Left, bottom). East Facade, bay window on second floor. 1987.*

*Figure 31 (Right, middle). Lower Terrace, with Giant Camera in background. 1987.*
Figure 32 (Left, top). Upper Terrace. 1987.

Figure 33 (Right, top). Giant Camera. 1987.

Figure 34 (Left, middle). North stair to Upper Terrace. 1987.

Figure 35 (Middle). North stair to Lower Terrace. 1987.

Figure 36 (Right, middle). Stairs and platforms on south side. 1987.

Figure 37 (Left, bottom). Stone wall, south side, dating from the Second Cliff House, c. 1890. 1986.
3.4 Interior Description

3.4.1 General Conditions
As mentioned earlier, little of the present interior surfaces of the Cliff House are original. Those that are remnants of the original construction are outlined in the table below. The majority of the present interior surfaces date from the 1949 remodelling, although some are even more recent.

3.4.2 Original Features
The following interior features have been identified as dating from the 1909 construction of the Cliff House:

<table>
<thead>
<tr>
<th>Floor</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basement</td>
<td>Vault room and vault</td>
</tr>
<tr>
<td>Basement</td>
<td>Boiler room and boiler</td>
</tr>
<tr>
<td>Basement</td>
<td>Exterior stair (enclosed by 1954 construction)</td>
</tr>
<tr>
<td>First</td>
<td>Main stair and balustrade to second floor</td>
</tr>
<tr>
<td>First</td>
<td>Exterior cornice visible from electrical panel room</td>
</tr>
<tr>
<td>First</td>
<td>Plaster decoration visible in storage rooms adjacent to dining room</td>
</tr>
<tr>
<td>First</td>
<td>Mosaic floor at original south entrance</td>
</tr>
<tr>
<td>Second</td>
<td>Mosaic floor in space south of main stairs</td>
</tr>
<tr>
<td>Second</td>
<td>Marble veneer walls at the main entrance</td>
</tr>
<tr>
<td>Second</td>
<td>Light fixtures in dining room</td>
</tr>
<tr>
<td>Second</td>
<td>Stair to mezzanine level between second and third levels</td>
</tr>
<tr>
<td>Second</td>
<td>Cast plaster decoration in stairwell</td>
</tr>
</tbody>
</table>

3.4.3 Basement Floor
Most of the basement level has rooms which once housed support functions for the building. These spaces originally had unfinished concrete surfaces. A significant portion of the basement level has been converted to offices and now has carpeted floors, suspended acoustical panel ceilings, and gypsum board walls. The Musée Mécanique occupies the western portion of the basement. This area has finished concrete floors and painted gypsum board and concrete walls. Decorative elements such as Ionic pilasters reinforce its image as an arcade of antique amusement devices.

Original Features. The vault room with a steel and concrete vault, the boiler room with a steam boiler, and a former exterior stairway remain from the original building. The vault room has a finished concrete floor. The vault itself has a steel and brass vault door, with the mark of the Hermann Safe Co., San Francisco. It has a bronze surround with an egg-and-dart molding. The boiler room has an unfinished concrete floor and contains a large cast iron steam boiler on a raised concrete pad with "Fitzgibbons Boiler Co. Inc., New York - N. Y. - Oswego" cast into its fire doors.

The original exterior stairway led from the street level to the viewing terrace level below. A portion of the stairway was enclosed when the upper terrace was constructed in 1954, but some of it is still visible, as is part of the north wall of the 1912 addition, including a window with a painted sign (date unknown), directing visitors to the Cliff.

Figure 38. Vault, with a steel and brass door and the mark of the Hermann Safe Co., San Francisco. 1986.
House gift shop with an advertisement for "The World’s Largest Curio and Gift Shop."

### 3.4.4 First Floor

The first floor, like the basement level, houses support functions for the restaurant operations in the building and the "Terrace Room", a dining room located at the western end of the building, overlooking the ocean. To the west of the stair lobby are two toilet rooms; to the north is a stairway to the basement floor.

The Terrace Room, along with a corridor connecting it to the stair lobby, and the stair lobby itself, are finished with carpeted floors, suspended acoustical tile ceilings, and wallpapered or painted walls.

Originally, the Terrace Room was embellished with elaborate ornamental plasterwork at its cornice and around the ceiling beams. A contemporary suspended ceiling covers the original ceiling except on the eastern side, where the dining room has been subdivided into storage spaces. Here, portions of the original plaster are visible from a mezzanine level.

Immediately east of the Terrace Room are two store rooms and a corridor, finished with painted plaster walls, painted concrete floors and plaster ceilings. Beyond these spaces is an original kitchen, which has painted concrete walls. The ceiling is concrete except in one location where metal decking covers the former location of a stairway, now removed. Features from the 1937 remodeling include a sidewalk chute for freight, three refrigeration rooms, and an electrical panel room.

In the space created by the south addition is a locker and toilet room for employees and a storage room, originally designed as a small shop. The former spaces have concrete floors, exposed wood structure above, and plaster walls. A corridor connects these spaces with the rest of the first floor through what was the original south entrance with its original mosaic floor.

The north addition is divided into two areas: a corridor, men and women's toilets, and an office to the west finished in contemporary materials, and a storage area and crawl space to the east, with exposed wood structural elements.
Original Features. The first floor of the Cliff House historically had and continues to have an important role in its restaurant functions. However, very few original features survive. These include the following: the main stair to the second floor, a portion of the original exterior cornice visible from the electrical panel room, some ornamental plaster decoration visible in the storage rooms adjacent to the dining room, and a mosaic floor at the original south entrance.

The stair to the second floor is a feature of the original 1909 construction. It has white marble treads, and a bronze newel, square in section, with Neoclassical detailing. Some historic bronze balusters exist, while others have been replaced with bar steel. The railing cap is of wood.

Part of the north wall of the 1909 building divides the electrical panel room. A section of the original first floor cornice is visible on the north side of this wall.

Originally, the first floor dining room was embellished with elaborate ornamental plasterwork at its cornice and around the ceiling beams. A contemporary suspended ceiling has been installed, covering the original ceiling except on the eastern side, where the dining room has been subdivided into storage spaces. Here, portions of the original plaster are visible from a mezzanine level.

The original south entrance, now a corridor near the main stair, has a mosaic floor. It is made up of small pieces of white and gray marble set in a mosaic pattern, with a Greek Fret border. The fret itself is made up of reddish marble chips, and the borders are of black marble.

3.4.5 Mezzanine
During the 1949 remodelling, a mezzanine level was added south of the intermediate landing of the main stairs. This is used as an office and is finished with a carpeted floor, fabric covered walls, and a painted plaster ceiling. A wood stair to the south leads to the first floor.

3.4.6 Second Floor
The second floor historically has contained the major public spaces of the building. Presently, it houses a dining room, kitchen and bar in the 1909 portion, a lounge and gift shop in the south addition, and a lounge in
the north addition. All of these spaces, except the dining room, are finished in contemporary materials.

The dining room has wood floors with raised wood platforms, which were installed in 1973. Its ceiling and walls are plaster, painted in an "art deco" pattern. The kitchen is a contemporary commercial kitchen, with stainless steel and tile surfaces, and painted concrete floors.

Between the entry and the main stairs is an office, originally a cloakroom, which is finished with a carpeted floor and plaster walls and ceiling.

North of the kitchen is the bar, connected through an opening to the north addition. This combined area is furnished with "rustic" unfinished wood siding, false beamed timber ceilings, hardwood floors, and raised floor areas, all of which were installed in 1945.

The south addition has two distinct areas: an entry and gift shop at the east, and an lounge to the west. The entry has carpeted floors, diagonal wood siding on its walls, and a decorative pressed metal ceiling. The gift shop also has carpeted floors, and wood shelving on its walls, with a plaster ceiling. The lounge has a pressed metal ceiling, similar to the one in the entryway, carpeted floors and walls with wood panels and mirrors. These finished date from 1973.

Original Features. As in the rest of the interiors of the Cliff House, few original features remain on the second floor, due to its frequent remodelling. The features remaining from 1909 include a mosaic floor in a space south of the main stairs, some marble veneer walls at the entrance, and a stair to the original mezzanine level between the second and third floors.

Behind the main stair to the second floor is a raised area, accessible from an office, with a marble mosaic floor with a Greek fret border, similar to the mosaic floor at the first floor.

The walls at the main entrance are veneered with white marble walls, with raised bands at chair rail and picture rail height.
A narrow stair, accessible from the main hall and the kitchen, originally led to a mezzanine office between the second and third levels. The stair has since been blocked, and is used as a closet. An ornamental cast plaster cornice exists at the ceiling, with dentils and acanthus leaf motifs. This cornice is similar to cast plaster cornices visible in historical photographs of the second floor dining room.

The light fixtures in the second floor dining room remain from a remodelling which took place in 1937. They are of brass and glass, and are embellished with arrows signifying compass directions.

3.4.7 Third Floor
The majority of the third floor is a result of the 1949 addition to the south and east of the 1909 building. It consists of a kitchen and dining room, a stair, public toilets, and a storage space.

The kitchen is on the eastern side of the third floor and is finished with tile floors, plaster ceilings and walls, and stainless steel kitchen equipment. The dining room has carpeted floors and a raised platform, a vaulted ceiling with false wood beams, and plaster walls.

To the north east of the stair connecting to the second floor is a narrow hallway, with public toilets along the west side. North of the hallway is a storage area and an access ladder to the roof. This storage area is the original mezzanine office, with a raised plywood floor added in 1949 to raise its height to the third floor level. Above the storage room ceiling is a crawl space, completely unfinished, which is accessible from the roof access ladder. To the north west of the stair is another store room.

Figure 50 (Right, top). Second floor, lighting fixtures from the 1937 remodelling.

Figure 51 (Left, middle). Third floor kitchen.

Figure 52 (Right, middle). Third floor store room.

Figure 53 (Right, bottom). Third floor dining room.
SECTION 4 ANALYSIS OF EXISTING CONDITIONS
4.1 Site Issues

The site of the Cliff House is certainly one of the most dramatic in the Bay Area. Views of the Pacific Ocean, Seal Rocks, the Marin Headlands and Ocean Beach, as well as connections to paths leading to the beach and Sutro Baths ruins are waiting for the visitor. Currently a visitor arriving at the site is given very little information about the facilities available on site, or about the site itself. Only after one finds the Visitor Center is any orientation or information about the site available. At a minimum, orientation and signage systems should be improved directing visitors to the Visitors Center.

Primary access to the lower level viewing terrace, Musee Mechanique and the Visitors Center is currently provided by a steep, wood frame, open-riser stairway. The stair is in poor condition and should be replaced (See Figure 35.). At minimum a replacement stair should be constructed of more permanent materials in an improved design. If a more intensive scope of rehabilitation is contemplated, the method of access to the lower levels and the location of the Visitors Center itself should be reconsidered. Given the heavy level of use of the lower deck viewing areas, these improvements should be given a high priority.

The lower level terrace itself is currently in very poor condition, one area having already been cordoned off. Structural repair of this area is essential and should be given the highest possible priority.

Figure 54. Lower terrace, area cordoned off from the public. 1987.

Figure 55. Lower terrace, deterioration of west wall. 1986.
4.2 Architectural Issues

Exterior Appearance. Over the years, the general exterior appearance of the Cliff House has gradually declined. Piecemeal remodelings, changes brought on by maintenance requirements, and misguided efforts at improving the appearance have resulted in a building which has very little architectural character. The appearance of the building from the southeast and after the 1949 remodeling could be said to have had a coherent design quality. Natural materials, stained redwood, brick, and large neon signs all gave the building a strong modernist character (See Figure 17.). Although the materials are no longer exposed, the proportions remain. With very little expenditure, careful selection of paint colors, and minor improvements, much of the 1949 design feeling could be resurrected. A more ambitious program of rehabilitation might consider a new treatment to the east facade. However, the changes of 1949 were very extensive and attempts to return the east facade to an earlier period would involve substantial reconstruction.

Like the east facade, the west facade has also suffered changes. However, much of the original 1909 construction exists and could be greatly improved simply with a more interesting paint scheme (See Figure 24.). The basement level west wall and stairs to the upper viewing terrace need extensive repairs. Given the need for repair, this area provides great opportunities for remodeling. Large openings could be cut into the walls providing more convenient access between the deck and basement levels with the possibility of a change of use of that level of the building. This type of change would greatly help to tie together the interior and exterior of the building, something that is currently lacking.

Interior Appearance. Like the exterior, the interior suffers to some degree from remodelings of the past. In this case, because of the views through the great picture windows, the actual character of the interior design is not noticed to the same degree as it is on the exterior. With relatively minor interior remodeling the main dining spaces could be breathtaking.
4.3 Exterior Building Fabric Survey

4.3.1 Site Paving
The paving of the lower level viewing terrace is settled and currently is an irregular and hazardous surface. Also, surface-spalling of the concrete is ongoing. The entire lower level should be re-paved in conjunction with repairs to the perimeter wall. Sidewalks in front of the building are also in poor condition. They should also be repaired.

4.3.2 Roofs/Decks
The main roof is in fair condition. Currently the entire roof slopes to the west to two scuppers. This situation is not ideal since too much runoff is concentrated at the scuppers encouraging water to get into walls. When the building is re-roofed consideration should be given to modifying the roof pitches and adding additional downspouts.

Roof membrane systems at the upper viewing platform have failed in the past allowing moisture into the concrete deck. Although recently repaired, this membrane is only covering larger problems in the structure itself.

Roofing over the horizontal fins of the 1949 South addition does not show signs of leaking, but should be replaced when fins are repaired.

4.3.3 Flashing and Sheet Metal
Flashing and sheet metal systems on the Cliff House are copper and generally have performed well. However, gravel stops at the horizontal fins of the 1949 addition have inadequate vertical dimension to protect the wood fascias and also inadequate drip edges. The result is water migration under the fins, paint failure, and problems with the wood. Flashing of these edges will need to be redesigned and replaced.

4.3.4 Wall Materials
Concrete. Concrete wall surfaces on the west facade upper viewing platform built in 1954 are badly deteriorated primarily due to inadequate concrete cover over the reinforcing and poor water runoff details. The extent of the damage is probably much greater than that presently observable. The wide spread cracking in all the columns and wall surfaces suggests widespread moisture penetration and steel corrosion. At this point the amount of chipping off damaged concrete, sandblasting of steel, installation of
new epoxy-coated reinforcing, and patching in new concrete would be so extensive that demolition and replacement of this element will be the most appropriate course of action.

The concrete and stucco surfaces of the original building are in surprisingly good condition. Cracking in the stucco coat is noticeable in some areas and should be repaired prior to repainting the building.

**Wood Siding and Trim.** Horizontal wood siding installed in 1949 on the south addition and on the east facade was originally clear-finished. Historic photographs show that the building was painted very soon after the remodeling, almost certainly because of problems with the siding. Currently the siding is in fair condition. Some rusting of the railing is noticeable on the south wall. In order to stop the rusting the paint must be removed and the rail wire-brushed or otherwise scraped back to bright metal, then immediately primed. This is a time-consuming process and it involves to some extent, damaging the wood siding itself. However, if not done, the rails will continue to rust, eventually causing greater problems. The only alternative to this treatment is to re-sheath the building. Current conditions in this area do not warrant that treatment.

Wood fascia trim on the horizontal fins of the south addition should also be renovated. Currently they are exposed to water runoff from above and do not provide an adequate drip edge (See Figure 62.). For long-term maintenance issues, the entire detail needs to be reconsidered.

Vertical wood siding installed on the pylon at the east facade, after brick veneer was removed, is badly cupped and is allowing moisture penetration into the framing. The entire pylon should be resheathed, possibly in more weather-resistant materials.

Plywood siding installed on the east wall, north of the pylon, is a recent addition and is in good condition.

**Brick.** Brick veneer installed on the south and east facades in 1949 has a number of problems. Cracking can be observed on the bricks at the south wall. The cause of this cracking is not known. However, it may be due to
Figure 64 (Left, top). Pylon. Note cupped vertical siding, indicating moisture penetration. 1987.

Figure 65 (Left, middle). East facade. Metal panels north of pylon, replaced with plywood panels in late 1986. 1986.

Figure 66 (Left, bottom). East Facade, failure of grouting along sidewalk. 1987.

Figure 67 (Right, bottom). South facade, cracks in brick facing, requiring further analysis. 1987.

moisture problems in the wood back-up wall, or possibly due to thermal movement in the brick. Specific repair measures should be developed after investigation of the condition of the backing and its connection to the brick.

Grout fill at the base of the brick wall along the east facade needs to be chipped out and then repacked. This needs to be done in conjunction with the sidewalk repairs.

Metal Siding. Anodized aluminum siding installed on the east facade is missing several trim pieces and needs repair or removal.

4.3.5 Windows
The windows of the Cliff House are in differing states of repair. The original double hung windows at the first floor, west facade, are in poor condition (See Figure 28.). The sashes are failing and are now fixed in place. Replacement of these windows will be necessary. Window sashes at the second floor, west facade, appear to be in slightly better condition, however, they are also in need of repair (See Figure 29.). Fixed sash windows on the south and east facades of the building are generally in better condition.

4.3.6 Doors
Exterior entry doors at the upper level east facade are in good condition. Steel exterior exit doors at the east facade north corner, and south facade are rusted and will need repair or replacement.
4.4 Building Code Analysis

4.4.1 General
As an agency of the United States Government, the National Park Service is exempt from the requirements of state and local governments. This exemption includes planning and building code requirements. As a basis for this code study, the building has been analyzed under the requirements of all applicable state and local codes.

State. The applicable State code is Title 24, Part 2 of the California Administrative Code, also known as the State Building Code. Requirements of the State code deal specifically with disabled access and energy conservation, as well as life safety issues. The State Historical Building Code, Title 24 Part 3, does not apply to the Cliff House, as it is not recognized as a qualified historical building by a national, state, or local governmental entity.


4.4.2 Planning Codes
The City and County of San Francisco has designated the Cliff House and the property around it as a "P" or "Public Use" Zone. The "P" zone has no requirements for occupancy, parking, height or bulk leaving them up to the discretion of the governmental body that owns or controls them. Proposals for major changes of use or major additions or alterations will be subject to public review, under existing National Park Service guidelines.

4.4.3 Building Codes
Generally, Building Codes determine the minimum level of construction required for a given occupancy or combination of occupancies within a structure. Conversely, given the construction of an existing building, the Building Code sets forth what occupancies are permitted within that building. This interaction between the occupancy of a building and the construction requirements for that occupancy is at the heart of all building code regulations.

Building codes did not come into use much before 1925 in the United States. Also, building codes are continually undergoing revisions as building technology advances and construction methods and materials change. A building constructed in 1945 using the code in force at that time would probably not comply with the code in force today.

According to the San Francisco Building Code, Section 104 a, when an existing building is altered or added to only the additions or alterations themselves must meet the current code. Exceptions are if 75% or more of interior walls or partitions are changed, or new interior walls or partitions are added totalling more than 75% of the original walls or partitions (measured in linear feet), then all interior walls or partitions must meet the current code, including those unchanged by the renovation (Section 104 a, S. F. Building Code). In addition, under sections 104 b (2) B and C, if substantial changes are made to 2/3 or more of the floor levels of a building, than the entire building must meet section 104f, (lateral force design requirements), requiring the upgrading of the building to meet seismic forces.

Existing structures are generally only affected by building codes when alterations or additions are made to the building. There are several important exceptions to this rule. First, when the public health and safety is jeopardized by the condition of a building, ie. it has become dilapidated and may fall down or if the electrical system is unsafe, then the building may be required to comply with specific sections of the code relative to public life safety. Second, there are several "retroactive" sections of the code that effect all existing buildings because of the importance to public safety, these include; security systems including locks and lighting, elevator requirements requiring elevators to return to lobbies during an emergency. These requirements have come into being as a result of several disasters in hotels.

Aside from these few specific requirements, current building code requirements do not come into force until changes are made to the building, either through additions or alterations, or by changes that are made to the occupancy of the building.
4.4.4 Review of Building Code Requirements

Regulations based on the occupancy of the building:

Occupancy Type: The UBC classifies activities by their character or the purpose for which a building or part of one is used or intended to be used. These are then grouped according to the relative fire hazard of each group. The UBC uses capital letters to designate "occupancies" that are similar to each other. For example, an "A" Occupancy (for Assembly) includes A-1 auditoriums with stage and seating over 1,000 persons. Table 5-A of the Uniform Building Code summarizes these occupancy groups. The major occupancy types currently existing at the Cliff House include:

A-3 (restaurant, kitchens, drinking facilities),
A-4 (Musée Mécanique) and
B-2 (offices, retail sales)

Requirements based on the type of construction:

The UBC classifies construction types with Roman numerals from "I" to "V" with "I" being the most fire resistive (i.e. reinforced concrete) and "V" the least resistive (i.e. wood frame buildings) The Cliff House basically has two construction systems: the 1909 reinforced concrete main building, corresponding to the UBC construction type Type II F.R. (for Fire Rated), (See Section 1901), and the two wood frame additions, corresponding to UBC construction type Type V NR (Not Rated), (Section 2101). However, because the two construction types are not adequately separated from each other, the entire building is classified as Type V NR, the least restrictive of the two. According to section 1701 of the UBC, the building can only be considered as two separate buildings for purposes of classification by type of construction if they are separated with "area separation walls" according to section 505 (d). The type of separation described in this section consists of 4-hour fire rated walls, with 3/4 hour rated doors. Since these walls do not exist, the whole building is classified under the most restrictive classification. Although the additions could be upgraded to type V-1 hr by the addition of a sprinkler system in the additions, the building is considered as being type V NR for the purposes of this discussion.

The existing situation is mitigated somewhat by fact that virtually all of the existing and the majority of the actual use of the building takes place in the larger more fire-resistant 1909 portion. Also, the additions are relatively small.

The location of the building on the site:

The location of a building on its site and how close other structures are to it affects the allowable area and whether or not openings are permitted on exterior walls. All buildings must adjoin or have access to at least one public space, yard or street. When a building faces two or more public spaces, yards or streets, its size may be increased as a result. As the Cliff House is separated on 3 sides from neighboring buildings by open areas of at least 20 feet in width, increases in floor area are allowed of 2.5% for each foot of separation over 20 ft., up to 100% of the total floor area.

The floor area of the building:

The occupancy and construction of the building will determine the basic allowable floor area permitted for a building. This area may be increased based on other conditions; the location of the building, mentioned above, whether or not the building has a sprinkler system or area separation walls. The total floor area of the building cannot exceed twice the 1 story area allowed (UBC Section 505 (b)), plus allowable increases under Section 506 (a) 2. Because the Cliff House is
separated on three sides the allowable gross square footage of the building may be determined as follows: (the most restrictive case applies):

Type V - NR construction with an A-3 occupancy:  
\[6,000 \text{ s.f.} \times 2 = 12,000 \text{ s.f.}; \times 0.025 \text{ area increase} = 12,300 \text{ s.f. total.}\]

The maximum allowable floor area and building height, both by feet and number of stories, are determined by a combination of the occupancy group and construction type of the building by the UBC. Thus a hazardous use such as an auditorium seating less than 1,000 people (A-2 occupancy) housed in a wood frame building must be very small in area (10,500 square feet) and allowable height (2 stories) while the same occupancy housed in a concrete structure could be of unlimited area and height.

A table of the maximum figures for the various combinations of occupancies found in the Cliff House, based upon Tables 5 C and 5D of the Uniform Building Code is below:

<table>
<thead>
<tr>
<th>Const. Type/Occupancy</th>
<th>Max Area (sq.ft)</th>
<th>Max Ht (ft)</th>
<th>Max Ht, (stories)</th>
</tr>
</thead>
<tbody>
<tr>
<td>II-FR/ A-3</td>
<td>29,900</td>
<td>160</td>
<td>12</td>
</tr>
<tr>
<td>II-FR/ B-2</td>
<td>39,900</td>
<td>160</td>
<td>12</td>
</tr>
<tr>
<td>V NR/ A-3</td>
<td>6,000</td>
<td>40</td>
<td>1</td>
</tr>
<tr>
<td>V NR/ B-2</td>
<td>8,000</td>
<td>40</td>
<td>2</td>
</tr>
</tbody>
</table>

The height and number of stories of the building:

Actual Gross Square Footages of the Cliff House: The table below illustrates the actual gross square footage of the Cliff House:

<table>
<thead>
<tr>
<th>Floor</th>
<th>1909 Building</th>
<th>N. Addition</th>
<th>S. Addition</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>4,372</td>
<td>955</td>
<td>1,755</td>
<td>7,082</td>
</tr>
<tr>
<td>1</td>
<td>6,095</td>
<td>1,756</td>
<td>1,363</td>
<td>9,214</td>
</tr>
<tr>
<td>2</td>
<td>6,791</td>
<td>1,739</td>
<td>1,419</td>
<td>9,948</td>
</tr>
<tr>
<td>3</td>
<td>3,174</td>
<td></td>
<td>2,174</td>
<td>5,348</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>29,418</strong></td>
</tr>
</tbody>
</table>

Actual vs. Allowable: A comparison of actual values vs. allowable values under the Uniform Building Code follows:

Area: 29,418 S.F. - 12,300 S.F. = 17,118 S.F. overage

No. stories: 2 vs. 1 = 1 story too high

The existing Cliff House thus exceeds the allowable values both in floor area and building height.

The occupant load or number of people that might be in the building:
The term “occupant load” represents the total number of people that may occupy a building or part of a building at any given time. It is used to determine arrangement, width and number of exits required for a given occupancy. These exiting requirements are found in Chapter 33 of the UBC.

The occupant load is determined by dividing the area of a space by the number of square feet per occupant for that occupancy to arrive at the total number of people that the code assumes might be occupying the space at a given time. For example, in an office area of 300 square feet, the occupant load would be 300 divided by the number of square feet per occupant (30) to arrive at 10 occupants.

The following tables, based upon Table 33-A in the Uniform Building Code, give occupant loads for the major uses in the Cliff House. Table 2.3.c is a recapitulation of occupant loads per use, while Table 2.3.d is a summary of actual occupant loads in the Cliff House, based upon actual net square footage per use, per floor level.

<table>
<thead>
<tr>
<th>Table 2.3c</th>
<th>Occupant Loads for Major Uses in the Cliff House</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use</td>
<td>O.L. for 2 exits</td>
</tr>
<tr>
<td>4. Dining/drinking</td>
<td>50</td>
</tr>
<tr>
<td>12. Commercial kitchens</td>
<td>30</td>
</tr>
<tr>
<td>17. Offices</td>
<td>30</td>
</tr>
<tr>
<td>20. Retail</td>
<td>50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2.3d</th>
<th>Actual Occupant Load Summary of the Cliff House</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use</td>
<td>Basement</td>
</tr>
<tr>
<td>Dining/drinking: exhibit rooms</td>
<td>206</td>
</tr>
<tr>
<td>Comm. Kitchens</td>
<td>—</td>
</tr>
<tr>
<td>Locker rooms</td>
<td>—</td>
</tr>
<tr>
<td>Mechanical Rm.</td>
<td>14</td>
</tr>
<tr>
<td>Offices</td>
<td>14</td>
</tr>
<tr>
<td>Retail</td>
<td>—</td>
</tr>
<tr>
<td>Storage</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
</tr>
<tr>
<td>Total:</td>
<td>246</td>
</tr>
<tr>
<td>Total for the Cliff House:</td>
<td>902</td>
</tr>
<tr>
<td>*Total exiting from second floor:</td>
<td>434 + (85/2) = 477</td>
</tr>
</tbody>
</table>
Other Exiting Factors: All floor levels currently have at least two exits, and none are required by the code to have more than two exits. The distance between exits on each floor exceeds the minimum distance determined by Uniform Building Code section 3302 (c), which requires that the minimum distance between exits on a given floor be greater than half the maximum diagonal distance of the floor. In addition, minimum exit widths, found by dividing the occupant load by 50, according to Uniform Building Code section 3303 (b), are exceeded in all cases.

There are a number of problems with the exiting which should be addressed. The main dining level has two exits. One through the main stair and another through the P.T. Barnacle area. This second exit is poorly signed, and in addition it requires a person to go up and down stairs over a platform. A final potential problem might exist if the two facilities had different hours of operation. This issue should be reviewed with the concessionaire to assure that two exits are always available to this level. The main central stair provides an exit from all three levels, discharging through the main entrance at street level. This stair and corridor, and all openings into it should be of one-hour fire resistive construction. This does not appear to be the case, although it has been provided with an automatic sprinkler system which essentially gives it that rating. Rooms opening directly off the exit corridor, such as the office and gift shop, should be provided either with sprinklers or a rated door assembly.

**Energy Conservation.** Energy conservation requirements are set forth by California Title 24, Chapter 53, which set conservation standards to be met in building construction. Existing buildings are not retroactively required to meet the code. As the Cliff House was existing at the time of the adoption of Title 24, only new additions to the building would have to meet Code, according to sections 2-5301 (a) and (d).

**Disabled Access.** The only Code provisions retroactively applicable to the Cliff House are disabled accessibility requirements, which are found in California Title 24. Sections applicable to the Cliff House are as follows:

**Floors and Levels:** Title 24 Section 2-522 (e) requires that all floors of a given story must be of a common level throughout, unless ramps are provided. Exceptions for existing buildings can be made as follows: Where “unreasonable hardship” can be demonstrated, a minimum of 75% of the floor area must be accessible to the physically disabled, and where legal or physical constraints would not allow compliance with the regulations or equivalent facilitation without creating "unreasonable hardship," the requirements would be waived. All such exceptions would be made by the local building official, and subject to an appeal process, under section 2-110(b)11D.

**Toilet Facilities:** Title 24 section 2-511 requires all that all toilet facilities must be accessible to the physically disabled. Again, an exception can be made where "unreasonable hardship" can be demonstrated, equivalent facilitation can be provided. Essentially, equivalent facilitation consists of accessible toilet
facilities within a "reasonable distance" of accessible areas.

**Dining Banquet & Bar Facilities:** Title 24 section 2-611(d) specifically requires that dining, banquet & bar facilities shall be made accessible to the physically disabled. Exceptions can be made in existing buildings as follows: Where "unreasonable hardship" can be demonstrated, equivalent facilitation would be accepted, and the requirements would be waived where legal or physical constraints would not allow compliance with the regulations or equivalent facilitation without creating unreasonable hardship. Otherwise, all "functional areas" must be accessible, and 1 wheelchair space must be provided for each 20 seats, with a minimum of one per area.

### Accessibility Problems in the Cliff House:

The Cliff House is deficient in almost all areas of the disabled code. Specifically, only two floor levels can be reached by wheelchairs: the second floor at street grade, and the basement level by the walkway to the south of the building. Even then, both levels have many architectural barriers preventing their accessibility: The second floor has many changes in floor level, some of which are structural and other which are due to raised wood floors at some of the seating areas, and the portion of the basement level reachable to the disabled has narrow corridors lined with antique amusement devices. In addition, the only public toilet facilities in the Cliff House are on the first and third floors, completely unreachable to the disabled. At a minimum equivalent facilities should be provided: removal of barriers at the entry to the Cliff House restaurant and construction of accessible toilet facilities on that level. A better alternative will be to install an elevator providing access from the main entry to all levels.

### 4.4.5 Summary

The following is a summary of the major points regarding the conformance of the Cliff House with applicable state and local codes.

1. Applicable codes: S.F. Building Code/ 1979 Uniform Building Code; California Title 24
2. Existing Cliff House does not have to conform to life-safety codes. Under a substantial rehabilitation, additions & interior partitions would have to meet code and existing building would have to meet seismic code.
3. Occupancy is basically A-3, except basement.
4. The entire Cliff House is considered Type V NR construction and exceeds allowable height and area requirements for its construction type and occupancy group. This problem is mitigated somewhat by the fact that the majority of the building is actually Type II and by the fact that three of the four levels can exit at grade.
5. Most levels provide adequate exiting. However, the main dining room exit through the P.T. Barnum area should be made more visible, properly signed, and the raised platforms removed from the exit path. Also, hours of operation should be checked. Sprinkler system on the main stair should be extended into all ancillary spaces.
6. Only new additions would have to comply with current energy requirements.
7. The Cliff House is seriously deficient in disabled accessibility. Compliance can only be achieved by installing an elevator. If budgets do not permit this, then at a minimum the main level should be made accessible and provided with bathrooms.
8. Retrofit for disabled accessibility would probably be substantial enough to invoke requirement for seismic retrofit of entire building as well.
4.5 Structural System

4.5.1 Description
The following analysis of the structural condition of the Cliff House is based on visual inspection only. Construction documents describing the sizes and connections of structural members of the building no longer exist. Exploratory demolition to develop more specific information was not permitted at this time due to problems of disruption to the concessionaires. Comments and conclusions made below are derived from field survey, general observations, and past experience with similar buildings.

The original 1909 building consists of the area shown between centerlines lines 2 to 13 on drawings 14 and 15, Appendix 4.1. It is framed in steel with concrete slabs between the steel beams. The beams and girders are encased in concrete, for fireproofing. The 1912 addition in the north and the 1949 addition on the south are framed in wood. The upper viewing terrace (1954) to the west is constructed of concrete slabs and beams, with some masonry infill walls between the concrete columns.

4.5.2 Vertical Load Capacity
Inspection of the interior and exterior surfaces of the Cliff House do not indicate any signs of structural overloading such as serious deflections or cracking. Without additional detailed information regarding existing member sizes it is not possible to determine the exact load capacity of the floors of the structure, although it can be stated that from a vertical load point of view the structure has withstood the test of time and is performing adequately in its current state.

The exception to this statement is the upper terrace structure which was added to the main building at the basement and first levels in 1954. Corrosion of the reinforcing bars in the columns, lintels, and roof slabs is in an advanced state. Limited attempts at repairs were conducted on the roof slab in 1986, however, areas at the Southwest corner were considered too deteriorated for repair. Presently this area of the deck has a wooden scaffolding built under it to protect visitors from potential injury. The entire structure is in a very deteriorated state and should be attended to immediately.

4.5.3 Foundation
The condition of the existing foundations is not known at the present time. However, the building is bearing directly upon coastal rock formations and significant foundation problems are not anticipated.

4.5.4 Existing Lateral Load Capacity
Although the Cliff House was erected at a time when the state of the art in seismic design was not as advanced as it is today, a degree of lateral load capacity does exist. The floor and roof slabs can act as diaphragms and the existing walls as shear walls. However, the connections between the walls and slabs would have to be verified to ensure that the various lateral load resisting elements act in unison when they are subjected to horizontal forces.

The supporting rock formations slope down toward the west. This causes the supporting footings to step up towards the east with parts of the floor slabs erected as slabs on grade. This stepped foundation construction can help to support lateral loads, mainly in the east-west direction, if the existing footings are keyed into the rock. No assumptions have been made about this latter condition and further investigation needs to be undertaken to determine the actual nature of the connection between the foundation and the rock formation.

Structural calculations were developed to determine the loads that the building would be subjected to in an earthquake, and its approximate capacity to resist them. Assumptions were made regarding structural member sizes and connections, based on previous experience with similar structures and based on the requirements of the 1984 edition of the San Francisco Building Code.
In comparison with the requirements of the 1984 edition of the San Francisco Building Code, the original 1909 portion of the building has an existing lateral load-bearing capacity of approximately 50% in a north-south direction and approximately 25% in an east-west direction.

The wood frame additions at the north and south have significant portions of their perimeter walls framed in post and beam construction with most of the wall area consisting of windows. This type of wall has almost no lateral load capacity. These portions of the building are at present receiving their lateral stability by being connected to the main building, and probably could not stand on their own. The connections to the main building should be verified and reinforced if required.

The upper viewing platform on the west side will need to be extensively repaired in any event. Seismic repairs may be considered at that time.

4.5.5 Seismic Upgrading
The center portion of the building, erected in 1909, with its existing steel frame and concrete slab diaphragms, can be reinforced with relatively little difficulty. The addition of new gunite shear walls, added to the existing walls, can bring this portion of the building into compliance with the requirements of the present code. The most desirable locations for such walls, from a structural point of view, are shown in Drawing 14 in Appendix A. Section 1 in Drawing 15, Appendix A, shows a proposed section through such a shear wall. This section also shows the proposed connections at the floor and roof slabs. At the foundations, the new concrete should be keyed into the rock for proper shear transfer. Rock anchors can be drilled into the underlying rock at the ends of the shear walls whenever required by the final design, to withstand overturning forces.

The wood frame additions to the north and south are somewhat more difficult to reinforce to resist seismic forces. If the north addition has only straight timber sheathing at the floors and roof, there will not be proper horizontal diaphragm action and the addition of nailed down plywood sheets over the existing timber decks should be required. Whenever possible architecturally, existing walls could be reinforced to act as shear walls. The desirable location of these shear walls is shown on Drawing 14, Appendix A, and a typical plywood shear wall detail is shown on Drawing 15, Appendix A. Shear transfer at the existing foundation could be accomplished by adding new expansion bolts, and new tie-downs could be added at the end walls if required.

Where new shear walls or diagonal bracing would obstruct the view, new moment resisting steel frames could be utilized in front of the existing window walls, leaving most of the view unobstructed. Only some columns would have to be tolerated. Details of such a frame and its connections to the existing framing are shown on Detail 5, Drawing 15, Appendix A.

In addition to reinforcing the separate portions of the building individually, the ties between these portions of the building should be investigated and reinforced as necessary. If this is not done, the separate portions of the building, while perhaps individually strong enough to withstand the lateral forces in a serious earthquake, would act independently of each other, separate and come back together damaging the areas where they come into contact.

4.5.6 Summary
The Cliff House appears to be generally in good structural condition. The exception to this is the western viewing deck at the basement and first levels which is in need of immediate repairs. The current structural system of the Cliff House, although not meeting current code values does have some lateral-resisting capacity. Because it is an existing structure,
the San Francisco Building Code would not require seismic improvements unless a major renovation is undertaken. If a major renovation were planned for the building, structural improvements to bring the building up to current code requirements could be accomplished without tremendous difficulty.
4.6 Mechanical/Electrical Systems

4.6.1 Mechanical Systems

Introduction. The evaluation of existing mechanical systems in the Cliff House was based on visual observations in spaces accessible without destroying walls or other material. The exact location and type of concealed ducts, pipes, conduits, wiring, etc. are therefore not known at this time. Also, because of the building's many remodelings some equipment has been abandoned in place.

Presently, the building's mechanical systems consist of ventilation equipment and several air-cooled air conditioning units, primarily roof-mounted. All roof top equipment nameplates are obscured with paint, rendering identification of their capacities impossible. They appear to be in poor condition.

Basement. There is no mechanical ventilation at this level. The original boiler room has been abandoned, with the original boiler still in place.

First Floor. A ventilation fan, located over the liquor storage area, ventilates much of the north addition. The dining area is served by a roof-mounted unit, of unknown capacity, through sheet metal ducts in the ceiling space. The kitchen area is ventilated by an exposed sheet metal supply duct, connected to a roof-mounted evaporative swamp cooler, which provides general area ventilation. Two domestic water heaters are located adjacent to the oven in the kitchen; the vents for all three are tied together and exhausted through the roof.

Second Floor. The kitchen is served by two large grease hoods and a dishwasher hood tied to separate roof-mounted exhaust fans. Although the hoods appear to be in good condition, the fans should be replaced. Their capacities are unknown. Make-up air is furnished by a roof-mounted swamp cooler, through sheet metal ducts and duct mounted sidewall grilles. The main dining room is conditioned by a roof-mounted packaged unit, with an air cooled condenser, through ducts located above the lounge ceiling. The capacity of this unit is unknown. The north addition is not mechanically ventilated. A roof-mounted gravity ventilator is the only visible means of ventilation. The gift shop is conditioned by a packaged unit mounted in the exterior wall, through concealed sheet metal ducts.

Third Floor. The kitchen area contains two grease hoods and one dishwasher hood, all of which are connected to individual roof-mounted exhaust fans, of unknown capacities. No make-up air is provided for the kitchen. The dining room is ventilated by sheet metal distribution duct work above the ceiling level connected to a roof-mounted evaporative swamp cooler, with an unknown capacity. The duct work serves both supply and return ceiling registers.

Roof. Virtually all the ventilation equipment for the building is mounted on the roof. This equipment is in a state of disrepair. In addition, the exhaust fans serving the kitchen grease hoods are discharging grease onto the roof, a fire hazard and code violation. Replacement of all units and upgrading of the exhaust fans to meet code is recommended.

4.6.1 Electrical Systems

Like the rest of the building systems in the Cliff House, the electrical system has been added onto over many phases of construction. It is difficult to evaluate the existing condition of the electrical system as a result of its various alterations. It is especially difficult to evaluate the requirements of the individual branch circuits. This process of alteration is visible
clearly in the main service array of equipment, where the different styles of equipment construction indicate different times of additions. Sketch no. 1 in the Appendix, section 4.2.2, (Verify) illustrates the existing electrical service array.

Electrical service is underground at three phase, 240v, 4 wires center tapped. Distribution is both three phase 240v and single phase 120/240v. The size of the main service device is not readable without partial disassembly. Only two meters were noted, as well as a meter socket set flush in the ceiling above. Branch circuits appear to be mostly in conduit, although some NMSC cable is present. Recent short-term electrical repairs have included upgrading the existing older fused branch circuit panel and main entrance switch to circuit breakers, and cleaning and maintenance of the existing equipment. This work has eased the urgency of replacement of the original distribution board.

Although the electrical system appears to be functioning adequately at this time, any upgrade for the Cliff House should extend to the electrical system as well. The design of the system should treat branch circuits on a performance type basis, where interior architectural features are to remain intact, and new equipment branch circuits should be addressed specifically.

Measures recommended for upgrading the current electrical service of the building include a new service entrance, with separate meters for each concessionaire. Each metered area should be fed with a three phase 240v service, supplying 120v through a dedicated transformer, as illustrated in the Appendix, section 4.2.2, sketch no. 2. Additionally, all motors of 1/2 horsepower and above should be three phase. The size of the electrical service will need to be determined based on current and proposed future needs of the occupants.
5.1 Introduction

The following section will identify several different alternatives for the future of the Cliff House and the North Annex structure. The basic assumption for all of the alternatives is that the current uses of the complex are not only appropriate, but are, in fact, within the tradition of recreational and entertainment functions which have been the consistent thread connecting this and all of the previous Cliff Houses to this site.

Each of the alternatives considered will have a slightly different impact on these functions. However, the goal in all cases should be to continue to provide a range of entertainment and recreational experiences available to all levels of the public.

Since the building has been denied eligibility to the National Register of Historic Places the range of possible future alternatives is not constrained by issues of historic preservation. Demolition and replacement is a viable option. However, for the alternatives involving maintenance or rehabilitation effort should be made to conserve those few remaining elements of the original building, primarily the west facade.
5.2 Improvement Priorities

The alternative programs for improvements to the complex presented in this section provide a wide array of potential actions ranging from maintenance and repair only, to the demolition and replacement of the entire complex. Since the facility is apparently functioning adequately at this time all improvements are in a sense, discretionary. The following is a summary of problems identified earlier in this report which must be addressed in varying degrees in each alternative.

Problems of the Site and Visitor Orientation

- Improve the general sense of arrival and visitor orientation, including information to the handicapped about access to the lower level.
- Improve the sequence of spaces to the Visitor Center.
- Improve connections to surrounding features such as Sutro Bath ruins.

Problems of Exterior and Interior Appearance

- Improve the exterior appearance of the building.
- Improve the signage systems for the complex, including both private business signage as well as public area information signage.
- Improve the appearance quality of interior spaces.

Problems of Function and Public Safety

- Repair lower level decks and railings
- Handicapped access: Every effort should be made to eliminate architectural barriers. Due to the many levels and the slope of the site this may be difficult. However, equivalent facilitation for all activities available should be the goal of all schemes.
- Seismic Safety: The building as it now exists does not meet current seismic standards. This may be mitigated somewhat by the fact that it is primarily a steel / reinforced concrete and is built directly on rock. Since a major change of occupancy is not proposed, modern seismic requirements will not be required by code unless a major renovation is undertaken.
- Energy Efficiency: Operating costs for the building could be lowered with efforts to improve its energy conservation.
- Electrical/Mechanical systems: Numerous code deficiencies and problems exist which should be addressed in each scheme.
- Kitchen Operational Efficiency, equipment adequacy, and code compliance: This is an area where improvements may also be needed subject to the concessionaire's needs.

Problems of Materials/Building Systems Degradation

- The extreme exposure of the site takes a tremendous toll on exterior surfaces.
- The original concrete of the 1909 structure remains in surprisingly good condition. Subsequent concrete work is in poor and deteriorating condition and must be addressed in all schemes.
- Wood siding should be repaired or resheathed.
• Paint, sheet metal and windows are all in differing states of deterioration and a high-level maintenance program must be developed.

• Downspout systems should be remodeled.

• Roof-mounted HVAC equipment is in poor condition.
5.3 Alternative Improvement Plans

5.3.1 On-Going Maintenance and Repair

Simply maintaining the Cliff House and the North Annex at the current funding levels will not be adequate to improve the existing conditions. In fact, it appears as though the complex is currently funded at levels lower than those necessary to simply keep up with the building’s deterioration. However, with an increased budget for maintenance and certain additional urgently needed repair projects many of the goals for improvement can be realized, albeit in rather limited ways and over a longer period of time. This approach has some advantages over the more wide-ranging alternatives. First and possibly most importantly, it can be accomplished without closing the facility for an extended period of time. Secondly the cash-flow requirements of the Owner or Concessionaire would be stretched out over a longer period of time.

However, this alternative has serious disadvantages. Most importantly, the deficiencies of the building, in terms of handicapped accessibility, structural, mechanical, and electrical systems would be perpetuated. Also, the building’s less than optimum utilization of the site, and its less than flattering aesthetic characteristics would not be completely improved.

Scope of Work. Recommended maintenance and repair of the building includes the repair of damaged materials as identified elsewhere in this report, and preventative measures to minimize further damage, especially those which are moisture-related. Generally, measures include repair of the deteriorated concrete elements on the west side of the building, correcting the drainage systems for the whole building, preventing water penetration at the joints between building portions, thoroughly cleaning and repainting the building, and initiating a rigorous cyclical maintenance schedule. Partial interior remodeling of the main restaurant entry platforms and development of a disabled accessible bathroom at the second level will provide a marginal degree of accessibility to the major spaces in the building (the first and third levels would remain inaccessible). Major items specifically recommended for this alternative are listed in the following table (See “Scope of Work: Cliff House Maintenance and Repair”).

5.3.2 Rehabilitation

This alternative involves the rehabilitation of the Cliff House to meet current codes, and remodeling it to improve its general appearance and use of spaces. Rather than a restoration to a specific period of the building’s history, this alternative proposes to reinforce the 1949 design by compatible contemporary alterations. This approach would address in a positive manner all of the problems discussed earlier. Conservation of the building fabric would be accomplished in a manner similar to the maintenance alternative, with additional work to preserve significant architectural elements, and the upgrading or replacement of other elements with compatible new construction.
**Scope of Work: Cliff House Maintenance and Repair**

**Site**
- Demolish undermined overlook @ west edge, viewing platform
- Replace wood stairs at north edge of viewing platform with new concrete stair; coordinate design with new lower level addition
- Demolish and repave lower viewing platform area completely
- Replace concrete masonry walls at west wall viewing platform completely
- Repair/replace exterior railings as necessary
- Repair sidewalk in front of building

**Basement Level**
- Demolish and reconstruct 1954 addition complete with stairs and railings

**Exterior Wall Surfaces - General**
- Remove, replace cracked stucco @ southwest corner
- Replace nails, fasteners as necessary with galvanized
- Repair metal panels covering wall @ north end, east side
- Remove paint, clean all exterior surfaces
- Repaint entire building
- Replace existing neon signage
- Remove all deteriorated light fixtures and replace

**Exterior Openings**
- Replace caulking, weatherstripping all exterior openings
- Remove wall vents in first floor dining room, replace wood filler material
- Repair, replace hardware on steel fire doors as necessary
- Replace windows at first level west side
- Repair other windows throughout

**Interior**
- Remodel entry to the main restaurant, remove raised platform to allow wheelchair access
- Remodel area at southwest of P.T. Barnacle area for improved exiting and installation of handicapped restrooms
- Replace roof mounted kitchen hoods to meet code

**Roof**
- Remove existing roof surface
- Revise roof slopes to provide improved drainage
- Install new 20-yr bonded roof
- Replace flashings
- Provide additional scuppers, downspouts at both main roof and north addition
- Initiate periodic inspection/cleaning program for bird debris control
- Replace roof- mounted mechanical equipment
- Install downspouts
For more optimal utilization of the site’s characteristics, focus should be directed towards the west end of the building, now clearly the “back” of the building and facing the largely underutilized viewing platform. This can be accomplished by replacing the deteriorated western viewing platform with new construction, locating enclosed, smaller scale shops and fast-food restaurant services along an indoor/outdoor “street” spilling out along the roof deck with removable glass enclosures.

Internally, the restaurant operations could be more efficiently organized, eliminating some of the redundancy involved in having three separate kitchen areas.

This alternative would substantially improve the building’s quality of service to the public. It could be made completely accessible to the handicapped by providing an elevator and removing interior architectural barriers, and would be reinforced for seismic safety. The resulting building would have a substantially upgraded appearance, which would enhance the image of the Cliff House as high quality visitor destination.

In terms of cost and feasibility, however, this alternative poses additional problems to the simple maintenance and repair of the structure. It would be more costly to accomplish. In addition, it would be physically difficult to accomplish certain items of work in this proposal. For example, installation of the elevator would require cutting a suitable pit out of the rock, without disturbing the existing foundations of the building. Also, the facility would have to be closed for a substantial period of time, probably about a year.

Scope of Work. Work included in this alternative includes most of the work above for the maintenance and repair of the building, and the additional work shown in the table below (See “Scope of Work: Cliff House Rehabilitation).

5.3.3 Restoration/Reconstruction to Historical Conditions

Restoration of the building to its condition at some specific period in its history raises the question of which period is appropriate for this work. As the building has been built and altered in several distinct phases over its history, several possibilities exist as target dates for such a restoration: the original 1909 construction date, alterations in 1912 and 1937, and the 1949 additions. If an accurate restoration were to be considered, a restoration to 1949 would be inappropriate, as the 1949 additions were poorly detailed in their use of weather-resistant materials. More appropriate would be a restoration to c.1939, during the Golden Gate International Exposition. This period was early in the tenure of the Whitney Brothers when the Cliff House was an elegant fashionable restaurant. In addition, the late 1930’s was an aesthetically pleasing phase of the building’s history, when the Reid Brother’s original 1909 design was essentially intact, as was the 1912 addition, including a very handsome Neoclassical portico.
Such as restoration/reconstruction would be misleading, however. Many missing features would have to be replicated based upon fragmentary and incomplete historical evidence, forcing the restoration to be conjectural. It would also require the removal of all of the 1949 elements of the building. Also, it would have to strike a compromise between historical accuracy and accommodation of modern needs, such as disabled accessibility. The extensive amount of work necessary for restoration would, in reality, disguise the lack of real historical integrity of the building at this time.

Restoration and reconstruction to an earlier period is not considered to be a viable alternative for the Cliff House.

**Scope of Work: Cliff House Rehabilitation**

**Site**
- Replace wall @ walkway south edge of building
- Provide protected seating areas

**General**
- Install elevator for disabled access east of main stair
- Reinforce for seismic per drawings, sheets 14 & 15
- Replace roof mounted mechanical equipment
- Upgrade electrical system with new service entrance, meters
- Remodel basement level (see below)

**Exterior Wall Surfaces - General**
- Remove existing siding, windows @ north end, east side & install new windows, doors, siding to match 1949 elements
- Remodel or restore south, east, and north facades for improved appearance

**Third Floor**
- Move restrooms north of new elevator, build up floors to same level with new structure

**Second Floor**
- Remove or redesign raised floor seating areas in dining room & lounge
- Install ramping system for structural level changes

**First Floor**
- Reconfigure toilets
- Reconfigure lobby area/corridor to dining room
- Remove storage rooms @ east side dining room
- Restore ornamental plasterwork in dining room
- Replace exterior fire doors
- Centralize food processing/storage functions

**Basement Level**
- Demolish first floor west viewing platform
- Repair spalled concrete @ southwest corner, basement level
- Remove partition walls west of concrete bearing wall
- Remove existing west wall
- Construct new spaces for smaller commercial, food related, or visitor center activities - "mini-mall" with glass extension onto deck
5.3.4 Demolition and Replacement

Since it has been determined by the National Register of Historic Places that the building that currently exists is not historically significant, demolition of the current structure and replacement is a valid alternative. Replacement with a new structure would allow a much more wide-ranging number of issues with regard to the site be considered, including issues of site planning related to both the Sutro Baths site and Ocean Beach. Also the idea of a more intensive use of the site which might include hotel facilities (consistent with original and earlier buildings) could be considered.

Because of the prominent nature of the site, and because of the potential criticism that may result from demolition of the current structure, only the finest possible architecture should be accepted or proposed for the new structure(s). One way to achieve this, as well as to develop public interest in the project, would be to establish a national or international design competition for the site. This type of approach would benefit not only the National Park Service but the developer and the general public as well.

In order to properly assess the feasibility of this approach, a market analysis should be undertaken to determine the optimum size and uses of a new facility at the Cliff House site, as well as the cost and income capabilities. A program could then be developed which would serve as the basis for the design competition. The process involved in moving in the direction of demolition and replacement will take a number of years. Consideration of this alternative for the long term can realistically be taken only in conjunction with much of the on-going maintenance program for the short term.
6.1 DRAWINGS OF EXISTING CONDITIONS
WEST ELEVATION

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<thead>
<tr>
<th>MATERIAL SCHEDULE</th>
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<td>2. WOOD SIDING</td>
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<td>3. CONCRETE MASONRY</td>
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<td>5. STONE</td>
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DESIGNED: EXISTING DRAWN BY

ARCHITECTURAL RESOURCES GROUP

CLIFF HOUSE 641/60,150
WEST ELEVATION
EXISTING CONDITIONS
HISTORIC STRUCTURE REPORT
LONGITUDINAL SECTION A-A
5.3.5 Construction Cost Comparison

Probable construction costs were developed for each of the three alternatives presented in the previous section. These estimates are conceptual in nature, being prepared without plans and specifications. They are presented here in order to establish the general order of magnitude of the cost of each alternative, and to provide a basis for comparison among the alternatives. Shown below are summaries of the estimates. Additional data is provided in the Appendix.

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<tr>
<th></th>
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<th>Rehabilitation</th>
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5.3.6 Alternative Development Approaches for the Cliff House and North Annex

Alternatives for both the Cliff House and North Annex should be considered together. Although they are separate structures, they are historically and functionally tied together, and alternative treatments should be complementary. The chart below summarizes the various combinations which need to be considered.

<table>
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<tr>
<th>Alternative Development Approaches</th>
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<td><strong>NORTH ANNEX</strong></td>
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<td>Rehabilitation</td>
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<td>Demolition &amp; Replacement</td>
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</tr>
<tr>
<td>YES (2)</td>
</tr>
<tr>
<td>YES (3)</td>
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<tr>
<td>NO</td>
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<tr>
<td>YES (6)</td>
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</table>

(1). Cliff House Maintenance/North Annex Maintenance

The least costly alternative resulting in the same conditions in a slightly improved and generally maintainable state. Continued deterioration is probable, although its acceleration will be somewhat arrested.

(2). Cliff House Maintenance/North Annex Rehabilitation

The second least costly scheme. This would allow some improvement to the North Annex, but would still result in a similar situation to that identified in (1) above.

(3). Cliff House Maintenance/North Annex Demolition & Replacement

Although this alternative is the third least costly, it could result in dramatic changes and improvements to the site. Demolition and replacement of the North Annex would allow a larger and better configured building with improved access and utilization of the site. Site access and orientation problems affecting the Cliff House itself could all be resolved if an elevator were integrated into the new structure, and connections were made to the north wall of the Cliff House. Despite dramatic changes, this scheme would also allow the Cliff House to remain open.

(4). Cliff House Rehabilitation/North Annex Rehabilitation

The amount of money spent to rehabilitate both buildings would be substantial and the North Annex would still not be improved adequately to justify closing the site. This alternative may be the least attractive.

(5). Cliff House Rehabilitation/North Annex Demolition & Replacement

This scheme offers the advantage of substantial improvements to the Cliff House and enlargement and reconfiguration of the North Annex. This combination together with dramatic improvements to the site is an attractive alternative.
SECTION 5 PROGRAMMATIC ANALYSIS
(6). Cliff House Demolition & Replacement/North Annex Demolition & Replacement

The most dramatic alternative, and the most costly financially, this alternative will also result in closure of the site for a considerable period of time. However, it does have the appeal of potentially creating a new and improved facility, in the tradition of the three previous Cliff Houses.

The final selection of an alternative for the future of the Cliff House should become the topic of discussion of all involved agencies and groups. In lieu of making one recommendation, the chart below presents the six alternatives rated against various criteria. The subject of future discussions will need to focus on the appropriate weighing of the criteria. At this time, alternatives 3, 4, and 6 appear to be the most attractive.

<table>
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<td>7</td>
<td>Died Opus Co. &amp; Architects fees</td>
<td>17</td>
</tr>
<tr>
<td>9</td>
<td>S.S. for 5 hose &amp; 6 hose &amp; tank cement joints</td>
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</tr>
<tr>
<td>10</td>
<td>Labor</td>
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<td>14</td>
<td>San Francisco &amp; Co. - Co. representatives</td>
<td>190</td>
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<tr>
<td>Date</td>
<td>Description</td>
<td>Amount</td>
</tr>
<tr>
<td>------</td>
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<td>Nov 1</td>
<td>Check for lumber &amp; hardware supplies as follows:</td>
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<td>Lumber, 16.52</td>
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<td>16.85</td>
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<tr>
<td></td>
<td>31.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brick, 1.38</td>
<td>50.5</td>
</tr>
<tr>
<td></td>
<td>Stone, 1.93</td>
<td>138</td>
</tr>
<tr>
<td></td>
<td>30.82</td>
<td>593</td>
</tr>
<tr>
<td>Nov 2</td>
<td>Check for lumber &amp; hardware supplies as follows:</td>
<td>140</td>
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<td>Lumber, 16.38</td>
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<td>16.85</td>
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</tr>
<tr>
<td></td>
<td>31.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brick, 1.38</td>
<td>50.5</td>
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<tr>
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<td>Stone, 1.93</td>
<td>138</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Dec  4</td>
<td>Check for lumber &amp; hardware supplies as follows:</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>Lumber, 16.38</td>
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<tr>
<td></td>
<td>16.85</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brick, 1.38</td>
<td>50.5</td>
</tr>
<tr>
<td></td>
<td>Stone, 1.93</td>
<td>138</td>
</tr>
<tr>
<td></td>
<td>30.82</td>
<td>593</td>
</tr>
</tbody>
</table>

**Total Expenses for the period:** $2,651.77
<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 11</td>
<td>San Francisco Re building Co. 7th payment</td>
<td>$1250</td>
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<tr>
<td>Feb. 16</td>
<td>Labor</td>
<td>$27</td>
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<tr>
<td>Feb. 20</td>
<td>San Francisco Re building Co. 8th payment</td>
<td>$2025</td>
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<td>Feb. 23</td>
<td>Labor</td>
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<td>Nov. 6</td>
<td>San Francisco Re building Co. 9th payment</td>
<td>$1000</td>
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<td>Nov. 9</td>
<td>Labor</td>
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<td>Nov. 16</td>
<td>San Francisco Re building Co. 10th payment</td>
<td>$2600</td>
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<td>Nov. 20</td>
<td>Labor</td>
<td>$6</td>
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<td>Nov. 25</td>
<td>Labor</td>
<td>$708</td>
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<tr>
<td>Nov. 30</td>
<td>Labor</td>
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<td>Dec. 5</td>
<td>San Francisco Re building Co. 11th payment</td>
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<td>Dec. 13</td>
<td>Labor</td>
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<td>Dec. 20</td>
<td>Labor</td>
<td>$3790</td>
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<td>Dec. 22</td>
<td>San Francisco Re building Co. 12th payment</td>
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<td>Dec. 27</td>
<td>Labor</td>
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<td>Dec. 30</td>
<td>Citation issued Co. 1st and final payment</td>
<td>$7077</td>
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| May 1 | Court of Supervisors for new G10 - W12
1915.12 |
<p>|... |... |... |</p>
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<thead>
<tr>
<th>Month</th>
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<tr>
<td>May</td>
<td>D. B. Clark</td>
<td>809</td>
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<tr>
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<td>Ornamental Plaster</td>
<td>375</td>
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<tr>
<td></td>
<td>Labor</td>
<td>26.95</td>
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<tr>
<td></td>
<td>A. D. Avery</td>
<td>26.95</td>
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<tr>
<td></td>
<td>Yoke Cliff House Ornamental</td>
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<td>June</td>
<td>Labor</td>
<td>17.50</td>
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<td>Robert Dalziel</td>
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<td>E. J. Smyth</td>
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<td>Cottis Eng's Estate</td>
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<td>1st Telephone &amp; Bell</td>
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<td>D. B. Clark</td>
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<td>2nd Ornamental Plaster</td>
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<td>J. B. Barrows Factory</td>
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<td>Ornamental Plaster</td>
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<td>Labor</td>
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<td>D. B. Clark</td>
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<td>3rd Ornamental Plaster</td>
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<td>General for erasing Price</td>
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<td>Al. Tauck</td>
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<td>Anchor Bolt &amp; Draw for Balancers</td>
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<td>June</td>
<td>D. B. Clark</td>
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<td>4th Ornamental Plaster</td>
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<td>New Window Setting</td>
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<td>J. B. Barrows Factory</td>
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<td>Ornamental Plaster</td>
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<td></td>
<td>Labor</td>
<td>500</td>
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<tr>
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<td>New Window Setting</td>
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<td></td>
<td>D. B. Clark</td>
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<tr>
<td></td>
<td>5th Ornamental Plaster</td>
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<td>Date</td>
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<tr>
<td>------</td>
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<tr>
<td>Jun 23</td>
<td>Red Edger On acct. Architect Fees</td>
<td>9.00</td>
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<tr>
<td>Jul 15</td>
<td>A. B. Backer 2nd &amp; final payment</td>
<td>9.99</td>
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<tr>
<td>Aug 17</td>
<td>Arthur Griddle 1st &amp; final payment</td>
<td>10.12</td>
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<tr>
<td>Aug 17</td>
<td>Payment on acct. Bricks</td>
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<td>Aug 17</td>
<td>Arthur Griddle 2nd &amp; final payment</td>
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<td>Aug 17</td>
<td>A. F. Fuller &amp; Co. 1st &amp; final payment</td>
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<tr>
<td>Aug 17</td>
<td>A. P. Fuller &amp; Co. Same as above</td>
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<tr>
<td>Aug 17</td>
<td>Payment on acct. Concrete Work</td>
<td>10.35</td>
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<td>Aug 17</td>
<td>A. P. Fuller &amp; Co. 1st &amp; final payment</td>
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<td>Aug 17</td>
<td>S. F. Re building Co. 1st &amp; final payment</td>
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<td>Date</td>
<td>Description</td>
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<tr>
<td>-------</td>
<td>-----------------------------------------------------------------------------</td>
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<tr>
<td>1909</td>
<td>By Cliff House, purchase 10,000 sq. yards @ $2.175 each</td>
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<tr>
<td>Sept.</td>
<td>James Gable, 1st and Final Payment on site for services rendered in connection with job.</td>
<td>1070.40</td>
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<tr>
<td>Oct.</td>
<td>Bank Deposit $1000.00 to build fund and final payment due to A.B. Auerbach</td>
<td>1151.40</td>
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<tr>
<td>Nov.</td>
<td>J.F. Rebuilding Co., 1st payment under contract of J.W. Grant, Jr.</td>
<td>2119.20</td>
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<tr>
<td>Dec.</td>
<td>Ready, Inc., for change in record and release of lien</td>
<td>1240.50</td>
</tr>
<tr>
<td>Jan.</td>
<td>Cliff House, Inc., final settlement of claims to estate.</td>
<td>1495.00</td>
</tr>
<tr>
<td>Feb.</td>
<td>J.W. Grant, 1st &amp; final payment for painting tops of chimneys</td>
<td>1546.00</td>
</tr>
<tr>
<td>Feb.</td>
<td>J.E. Clavin, 1st &amp; final payment for erecting chimneys &amp; reeling chimney to roof</td>
<td>1547.00</td>
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<tr>
<td>May</td>
<td>J.W. Grant, 1st &amp; final payment for new ventilation</td>
<td>5600.00</td>
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<tr>
<td></td>
<td>Total</td>
<td>5565.44</td>
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<tr>
<td>Month</td>
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<tr>
<td>July 20</td>
<td>F. M. George - Final paint act.</td>
<td>135.75</td>
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<tr>
<td>July 26</td>
<td>Roof, Delgul, Inc. - Interest on $300 on each bond held</td>
<td>148.20</td>
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<td>Aug 6</td>
<td>A. C. Wacker - 1st &amp; final pay on acct of repairing tiling &amp; decorating damaged by LEAKS in C. H. Roof</td>
<td>1790.00</td>
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<tr>
<td>July 11</td>
<td>Forster, Corwin, Mark - Repairs to galvanized iron roof, Cliff House</td>
<td>1785.00</td>
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<td>July</td>
<td>Lead supplied, S. F. Rebuilding Co. &amp; applied on acct of contract, Nov 9, 1909</td>
<td>81.50</td>
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<td>Aug 31</td>
<td>Salvage old cliff house</td>
<td>352.00 (357.42)</td>
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<td>Nov 14</td>
<td>Berger, Mfg. Co.</td>
<td>740.05</td>
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<td>Date</td>
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<td>Amount</td>
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<tr>
<td>------</td>
<td>--------------------------------------------------</td>
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<tr>
<td>Dec. 2</td>
<td>Reid Bros. Bal. due on Commission</td>
<td>287.14</td>
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<td>1st Fund</td>
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<td>Premium on Employers' Liability Ins. Policy 136-57</td>
<td>25.00</td>
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<td>Mar 28</td>
<td>St. Refinishing Co. Balance due on Balconies</td>
<td>22.10</td>
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<tr>
<td>Apr 5</td>
<td>F. Z. Goetz Repairs, Cliff house Roof</td>
<td>12.10</td>
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<tr>
<td></td>
<td>1912 Western Electric Magnesium Co.</td>
<td>19.11</td>
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<tr>
<td></td>
<td>Repairs C. H. Roof Brookline</td>
<td>56.13</td>
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</tbody>
</table>
RESOLVED, that George Jones, President, and L. J. Scooffy, Secretary of this company, be and they are hereby authorized, empowered and directed in the name and under the seal of this company, by themselves as such officers, to make, execute and deliver to Emma L. Merritt as Executrix of the last will of Adolph Sutro, deceased, the chattel mortgage dated the 2nd day of May 1910, wherein the Cliff House is mortgagor, and Emma L. Merritt as Executrix of the will of Adolph Sutro, deceased, is mortgagee, and which chattel mortgage secures the payment to the mortgagee, her successors and assigns, of the rents provided for and to be paid by the mortgagor to the mortgagee, and the fulfillment and performance of all covenants, agreements and conditions on the part of the mortgagor to be fulfilled, which are contained in that certain lease executed by the mortgagee to John Tait as lessee and thereafter assigned by said lessee to said mortgagor and which lease is dated the 27th day of August 1907.

I hereby certify the above and foregoing resolution is a true and correct copy of a resolution adopted at a special meeting of the Board of Directors of the Cliff House duly and
regularly called and held on Saturday, the 14th day of May 1910, at twelve, noon, of said day, after notice given to all the directors in the manner required by the by-laws of said company, and that the said resolution was adopted by the unanimous vote of all the Directors present, there being a quorum in attendance, and that the said resolution has never been rescinded, vacated or set aside and is still in full force and effect and virtue.

[Signature]

Secretary of the Cliff House.
THIS MORTGAGE, made the 2nd day of May, one thousand nine hundred and ten, by "CLIFF HOUSE", a corporation, of the City and County of San Francisco, State of California, by occupation restaurant, refreshment business, etc., Mortgagor, to EMMA L. MERRITT, Executrix of the Will of Adolph Sutro, deceased, of the same place, by occupation property owner and Manager, Mortgagee,

W I T N E S S E T H

THAT said Mortgagor mortgagor to said Mortgagee all that certain personal property situated on the leased premises hereinafter referred to and particularly described and enumerated on pages 1 to 11 hereto attached and made a part of this mortgage, together with all renewals, replacements and substitutions of said property or any of the same, which may hereafter be owned by the Mortgagor and used or situated on said leased premises.

AS SECURITY for the payment to the said Mortgagee, (her successors, etc.) of the rent provided for and to be paid by the Mortgagor to the Mortgagee, and the fulfillment and performance of all the covenants, agreements and conditions on the part of said Mortgagor to be performed and fulfilled, as contained in that certain lease of the Cliff House and adjoining premises, executed by said Executrix as lessor to John Tait as lessee, (and thereafter assigned by said lessee to said Mortgagor), which said lease is dated April 25th, 1907, and the execution of which was authorized and ratified by order of the Superior Court of the City and County of San Francisco, State of California, dated May 14th, 1907, in the matter of the Estate of Adolph Sutro, deceased.

IT IS ALSO AGREED that if the Mortgagor shall fail to make any payment of rent, as in said lease provided, or shall fail to perform or fulfill any of the said covenants, agreements or conditions, then the Mortgagee may take possession of the said property, using all necessary force so to do, and may immediately proceed to sell the same in the manner provided by law, and from the proceeds pay the whole amount of said rent, and all damages from
breach of said contract of lease, and all costs of sale, including reasonable attorneys' fees, and shall retain as security the balance of the moneys received from said sale, so long as any future or conditional liability for the payment of rent or damages shall remain; the surplus shall then be paid to the Mortgagor.

IN WITNESS WHEREOF, the said party of the first part (has executed these presents, and has caused it corporate seal to be hereunto duly affixed, the day and year first above written.)

"CLIFF HOUSE", a corporation

By

Geo. Jones
Its President

By

John Doe
Its Secretary
MORTGAGE

CLIFF DUNN, con.

TO

EMMA L. EMMERT

ADOLPH SUTHERLAND, etc.

May 2, 1910.

Recorded at the request of

LILIENTHAL, MCKINSTRY & RAYMOND

1711 Third Ave.

1.00

10.50

1910.
breach of said contract of lease, and all costs of sale, including reasonable attorneys' fees, and shall retain as security the balance of the moneys received from said sale, so long as any future or conditional liability for the payment of rent or damages shall remain; the surplus shall then be paid to the Mortgagor.

IN WITNESS WHEREOF, the said party of the first part (has executed these presents, and has caused it corporate seal to be hereunto duly affixed, the day and year first above written.

"CLIFF HOUSE", a corporation

By

State of California.
City and County of San Francisco.

On this __ day of ____________, in the year one thousand nine hundred and ____________, before me, George D. Peavy, a Court Commissioner of the City and County of San Francisco, State of California, residing therein, duly commissioned and sworn, personally appeared

Elmo Jones and Fred Smolich

known to me to be the President and Secretary respectively of the corporation that executed the within instrument, and known to me to be the person who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my Official Seal, at my office, in the City and County of San Francisco, the day and year in this Certificate first above written.

Court Commissioner of the City and County of San Francisco,
State of California.
breach of said contract of lease, and all costs of sale, including reasonable attorneys' fees, and shall retain as security the balance of the moneys received from said sale, so long as any future or conditional liability for the payment of rent or damages shall remain; the surplus shall then be paid to the Mortgagor.

IN WITNESS WHEREOF, the said party of the first part has executed these presents, and has caused its corporate seal to be hereunto duly affixed, the day and year first above written.

"CLIFF HOUSE", a corporation

By

____________________

On this ______ day of ______, in the year of our Lord, ______, before me, George D. Perry, a Court Commissioner of the City and County of San Francisco, State of California, residing therein, duly commissioned and sworn, personally appeared

____________________

known to me to be the President and Secretary

of the corporation that executed the within instrument, and known to me to be the person who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the same.

In Witness Whereof, I have hereunto set my hand and affixed my Official Seal, at my office, in the City and County of San Francisco, the day and year in this Certificate first above written.

____________________

Court Commissioner of the City and County of San Francisco, State of California.
State of California
City and County of San Francisco

EMMA L. MERRITT, who as Executrix is the mortgagee in said mortgage named being duly sworn, says:

That the aforesaid mortgage is made in good faith and without any design to hinder, delay or defraud creditors.

Subscribed and sworn to before me this 23rd day of May, 1910.

[Signature]
COUNTY COMMISSIONER
Notary Public in and for the City and County of San Francisco, State of California.
STATE OF CALIFORNIA,

CITY AND COUNTY OF SAN FRANCISCO

The President of "CLIFF HOUSE", a corporation, Mortgagor in the foregoing mortgage
named, and MILDRED HEWITT, the co-executrix of the Mortgagor in
said mortgage named, being duly sworn, for himself and herself
respectfully deposes and says:

That the aforesaid mortgage is made in good faith, and
without any design to hinder, delay or defraud creditors.

Subscribed and sworn to before
me this 14th day of May,
1910.

STATE OF CALIFORNIA

CITY AND COUNTY OF SAN FRANCISCO

On this 14th day of May, in the year 1910, before
me,thurST PARRY, a COURT COMMISSIONER, a Notary Public, per-
sonally appeared George Jones, known to me to be
the President of "CLIFF HOUSE", a corporation, that executed the
within instrument, and he acknowledged to me that said "CLIFF
HOUSE", a corporation executed the same.

STATE OF CALIFORNIA

CITY AND COUNTY OF SAN FRANCISCO

George Jones

Geo. Jones

COUNTY COMMISSIONER

COUNTY COMMISSIONER

COUNTY COMMISSIONER
MEZZANINE FLOOR

OFFICE
1 Bookkeepers desk
1 high desk stool
1 typewriters desk
2 office desks
4 plain chairs
1 Underwood typewriter
1 rotary neostyle
1 set rotary neostyle utensils & ink
3 waste paper baskets
1 hanging mirror
31 yds. cork carpet on floor
1 towel rack
1 soap dish
1 gas stove & tubing
1 Cliff House scrim square
1 filing cabinet & stand
1 safe (small)
1 safe cabinet
15 cabinet binding cases
9 vertical files
8 wire desk baskets
8 large tin cash boxes
1 bankers voucher case
1 desk stationary case
1 wico a/c file
1 register clip holder
8 ink wells
3 bottles ink
1 "paid" stamp
1 set (12) date stamps
1 "Cliff House" stamp
1 glass lampper
1 pen rack
1 hanging key rack
1 hanging file
6 board files
2 large time books
2 large cash purses
4 small cash purses
6 pairs Opera Glasses

MAIN FLOOR

DRESSING ROOM & LADIES TOILET
1 large rug
1 carpet runner
4 pairs tapestry curtains
4 scrim curtains
5 roller shades
4 curtain rods
1 portiere rod & rings
2 C.H. scrim squares
1 picture by Chas. Bird
1 picture "mother & child"
1 picture "Golden age"
4 hat & cloak racks weathered oak

1 oil stove (heater)
1 rocking chair
1 settee
1 arm chair
1 plain chair
1 pedestal
4 glass flower vases
1 dressing table
1 cheval mirror
2 waste baskets
1 towel rack
1 soap dish
MAIN FLOOR

DRESSING ROOM & LADIES TOILET
1 hand mirror
1 brush & 1 comb
2 hand brushes
1 clothes brush
1 whisk broom
1 buffer
1 nail file
2 pairs scissors
2 stand covers
2 doilies
1 pin tray
2 paper rollers
1 linoleum all over this floor

HALLWAY
1 picture "Group of Favorites"
1 electric fan
1 picture "David Garrick"
1 picture "Father of the Pack"

LOUNGING ROOM
6 small marble top tables
2 leather top tables
1 leather back rocker
1 leather back chair
1 extra fine rocker
2 large leather seat chairs
1 small leather seat chair
1 divan & 4 cushions leather
1 brass vase (on mantelpiece)
2 rugs
3 door draperies
(8 window draperies)
6 plants
6 green pots
1 carpet over this room
1 carpet runner to dining room
1 hand iron in grate
1 small rug in hat room
1 wire mat at Entrance
this room covered with Linoleum

DINING ROOM
2 green screens
30 round tables
2 small tables
12 service tables
17 window shades
20 velvet valances
122 Mahogany dining chairs
3 vienna chairs
6 nickel plated champagne stands
linoleum covers this floor
2 large rugs covers the linoleum

BAND BALCONY OFF MAIN DINING ROOM
1 piano
1 piano stool
1 piano cover

TELEPHONE BOOTH
1 stool
2 music stands
1 service table
2 vienna chairs

GENTS TOILET
2 towel racks N.P.
1 mirror above wash basins
2 N.P. soap dishes
2 brass cuspidors

BAR
200 Cliff House Steins
50 beer steins
30 beer glasses
14 pilsner glasses
41 large horses neck glasses
23 small horses neck glasses
20 klondike glasses
32 lemonade glasses
76 highball glasses
13 gin rickey glasses
55 whiskey glasses
56 soda water glasses
21 old fashioned cocktail glasses
26 large punch glasses
26 medium punch glasses
12 small punch glasses
6 port wine glasses
21 cherry glasses
**MAIN FLOOR**

**BAR**
- 50 cocktail glasses
- 14 hot drink glasses
- 15 pothouse glasses
- 23 pothouse cafe glasses
- 262 champagne glasses
- 89 white wine glasses
- 80 red wine glasses
- 16 whiskey decanters
- 3 ale mugs
- 12 mixing glasses
- 3 shakers
- 3 brass cuspidors
- 4 small fibre tubs
- 5 sugar bowls
- 4 fruit dishes
- 2 galv. ice boxes
- 5 absinthe dripstands
- 5 glass pitchers
- 2 punch bowls
- 21 punch cups
- 10 tom & jerry mugs
- 3 large decanters
- 2 orange squeezer
- 1 line presser machine
- 2 lemon squeezer
- 3 ice shavers
- 6 strainers
- 6 ice pucks
- 18 mixing spoons
- 4 middlers
- 2 fruit forks
- 2 cork screw machines
- 2 cork screw machines
- 2 wire cutters
- 1 can opener
- 1 punch ladle
- 16 wine coolers
- 10 wine baskets
- 4 galv. iron baskets

**KITCHEN**
- 3 copper stock pots with covers (2 with faucets)
- 8 copper braisieres with covers
- 6 copper saute pans (fry pans)
- 16 copper pots from 10" to 16"
- 4 copper sauteiro about 6" high
- 6 stransky sauce pans
- 1 enamel sauce pan
- 34 steel sauce pans
- 1 enamal pot with faucet
- 6 large roasting pans
- 2 small roasting pans
- 12 small steel fry pans
- 2 medium steel fry pans

1 galv. iron tub
5 ice pitchers
1 beer box with 5 faucets
2 copper funnels
1 picture "Hunters" 3 scenes
1 picture "Deer"
1 picture "Drawn Blank"
1 cash register #613374
4 mahogany arm chairs
2 marble top tables
1 air pump machine
14 syrup jars
6 cut glass whiskey bottles
2 match stands
1 steel mat
3 pairs sugar tongs
2 scrubbing brushes
1 hair broom
1-5 ft. step ladder
1 comb & 1 brush
2 clothes brushes
2 feather dusters
1 mop and handle
2 towel baskets
3 cuspidor mats
11 ginger ale stands
4 fly traps
1 weighing machine nickel in the slot
1 screen
3 pair ice tongs
2 dice boxes
1 back bar and mirror with all the cabinets &c. underneath &c.
1 front bar with brass foot rail and all the fixtures thereto
1 service bar with all fixtures &c. this bar fronts the checkers desk

2 large steel fry pans with covers
3 deep frying pots for potatoes
3 frying baskets for potatoes
16 shallow meat pans
30 enamel pans for baking
3 enamel bowls
6 enamel bowls white
6 china cups
4 strainers
4 galv. sullenders
6 broilers
1 oyster broiler
2 coal shovels
5 fire hooks
1 boiler scraper
MAIN FLOOR

KITCHEN
6 small barrels & covers
1 ice shovel
1 ice pitcher
1 ice axe
1 gas range & all fixtures
6 meat boards
8 large ice tubs
9 dishpans
1 marble slab
1 ice pick
3 case irons for cakes
6 channel cream pitchers
24 oyster roast plates
3 butter basins
26 steel spoons
15 small ladles
21 large ladles
6 skimmers
4 tea decanters
1 N.P. coffee urn (steam & gas)
2 duck presses
2 cheese scrapers
1 large Jno. G. Ills range & fixtures
1 vegetable steamer & 9 baskets
1 charcoal broiler & fixtures
1 large gas range & fixtures
1 hot cake plate
2 waffle irons
1 iron kitchen table & fixtures
1 centuary dishwashing machine
with baskets complete with fixtures & furnishings
1 patent knife cleaning machine
1 time clock used for help
2 cash registers #677011 & 677012
1 adding machine #571250
1-8 drop annunciator
2 cake turners
8 whips
1 vegetable slicer
1 saratoga chip machine
1 seal Bernard machine
1 apple corer
1 paper roller
1 stool
1-10' 8 day clock
12 strankey Bain Maries to keep food hot
1 small square bain maries to keep food hot
2 large square bain maries to keep food hot
1 copper sugar pan
4 beating bowls
1 chicken singlet & hose
4 wire slates
1 marble mortar & pestal
20 dariole moulds for pastry
18 savarin *
20 madelaine * (square)
21 * (round)
24 Tartelletes *
24 Nesselrode pudding moulds
16 baby moulds
4 Neapolitan ice moulds
5 fancy ice moulds
24 individual ice moulds
2 round cake frames
23 jelly moulds
16 pie plates (flat)
6 pie plates (deep)
1 bakers scales & weights
1 butchers scales
1 large platform scale (Howes)
1 potato masher
1 pumice machine
1 bread crumb machine
1 enterprise meat chopper
1 meat saw
1 meat block
1 meat cleaver
1 butcher steel
1 tin sieve
3 ice cream dishes
6 ice cream spoons
2 bread mouldy
1 rolling pin
1 almond mill
12 crab shells
24 meat hooks
1 ice cream machine complete
2 ice cream freezers
1 ice crusher complete
1 steam stock pot complete
1 salamander
1 rollwarmer complete with fixtures
2 dishwarmers complete with fixtures
1 hot water table
1 steam table complete with fixtures
5 refrigerating boxes complete with racks &
1 large meat refrigerator with hook
and fixtures complete
1 large 6 partition refrigerator
complete with racks & fixtures
1 large refrigerator in basement
for storing beer &c. complete
STOCK OF SILVERWARE

386 Steel knives
460 Table forks
418 " spoons
428 Tea spoons
114 Soup spoons
396 Silver table knives
1 Carving knife
8 Carving forks
6 Nut crackers
10 Orange spoons
80 Oyster forks
1 Bouillion spoons
60 Sugar tongs
14 crumb scrapers
44 Soup ladles
204 A.
1 Coffee spoons
241 Salt & Pepper shakers
5 Cream pitchers 1/4 pt.
25 Cream pitchers 1/6 pt.
Mustard Pots 5
Horse Radish pots 3
15 Bar spoons large
14 bar spoons small
11 bar shakers
15 Ramakins with covers
11 individual castors
8 Turkish coffee cups
2 Turkish coffee pots
36 Bouillion cup frames
11 ginger ale stands
12 Pan Roast dishes
18 crumb trays
41 Waiter trays 12*
83 bread trays 12*
39 Meat platters 12*
19 Meat platters 14*
89 Sugar Bowls cube
10 tea pots 1/2 pt.
5 chocolate pots 1/2 pt.
5 tea pots 1/4 pt.
(coffee pots 3/4 pt.
46 coffee pots 1/2 pt.
3 fish platters 20 *
10 meat platters 16 *
3 perter alo rags
6 drip pans for cooler std.
(cover platters 10 *
(cover platters 12 *
68 cover platters 14 *
10 pan roast covers
10 chafing dishes 8 *
6 chafing dishes 10 *
6 pastry stands
16 coolers
6 planks with frames
10 chafing dish frames
5 chafing dish frames 10 *
29 tureens 7/4 pt.
20 tureens 1 pt.
5 tureens 2 pt.
2 duck press cases
8 cooler stands
194 finger bowls
2 coffee pot special
3 ice tongs
3 fruit forks
7 strainers
6 dish racks
3 cigar lighters
3 egg holders
1 pepper mill (broken)

STOCK OF LINEN

619 tops
246 table cloths
3602 napkins
12 small banquet table cloths
3 large banquet table cloths
180 side towels
496 check towels
392 hand towels
87 large face towels
302 bath towels
102 pads or felts
19 coats
14 aprons
148 rags
86 roller towels
9 steamer curtains
4 green felts
6 Yds. Canton flannel
NOTE:
The diagram marked Exhibit "A", and following page 8, is referred to and made a part of this page.

LOWER FLOOR

LADIES DRESSING ROOM
1 dressing table
2 rocking chairs
1 table
1 arm chair
1 picture "Storm in Harvest"
2 waste baskets
1 glass flower vase
1 portiere rod & rings in toilet
1 large rug
2 large mirrors on wall
1 towel rack N.F.
2 soap dishes porcelain

1 gas lighter
1 comb & brush
1 pair scissors
1 hand mirror
1 clothes brush
1 file
1 buffer
1 small gromit curtain
1 scrim square Cliff House
1-2 drop fixtures in toilet
1 mirror on wall above wash basin

ROOM 1
1 rug
1 round table
1 service table
4 dining chairs

1 picture "Lady in red cloak"
1 picture "Spinning wheel"
1 window shade & fixtures
1 valance around window

ROOM 2
1 rug
1 round table
1 service table
4 dining chairs

1 picture "How the Squire caught Big Jack"
1 picture "Izaak Walton Song"
1 window shade & fixtures
1 valance around window

ROOM 3
1 rug
1 round table
1 service table
4 dining chairs

1 picture "Les Hazards Heureux"
1 picture "Le Couche de la Mariee"
1 window shade & fixtures
1 valance around window

ROOM 4
1 rug
1 round table
1 service table
4 dining chairs

1 picture "Birthday Team"
1 picture "Lady Washington" Carriage & Postillion
1 window shade & fixtures
1 valance around window

1 long picture Grecian subject (Ladies & children)
1 picture "Silver favourites"
3 window shades & fixtures complete
3 valances around window
1 N.P. cuspidor

ROOM 5
1 rug
1 round table
1 service table
4 dining chairs
1 nic. plated champagne stand
1 weathered hat & cloak stand

IN HALLWAY FRONT OF ROOMS 3 & 4
1 picture "Trial Billy Burns"
### NOTE:

The diagram marked Exhibit "A", and following page 8, is referred to and made a part of this page.

**LOWER FLOOR**

#### ROOM 6 - BANQUET OR BALL ROOM
- 1 carpet covering all this floor
- 7 round tables
- 45 dining chairs blue velvet seats
- 2 dining chairs mahogany
- 1 Viennese chair
- 4 service tables
- 4 small round marble tables

**ROOM 7 - NORTH OF BALL ROOM**
- 1 carpet covering all this room
- 1 large round table
- 11 dining chairs blue velvet seats
- 1 service table
- 1 weathered oak hat & cloak rack

**ROOM 8**
- 1 rug
- 1 round table
- 1 service table
- 4 dining chairs

**ROOM 9**
- 1 rug
- 1 round table
- 4 dining chairs
- 1 oak arm chair

#### GENTS TOILET
- 1 towel rack
- 1 soap dish (porcelain)

#### HALLWAYS
- Linoleum on all the halls except Vestibule
- Carpet & runners on same except at vestibule

- 1 picture "Homewards (bet. rooms 1 & 2)
- 1 picture "The Melton Breakfast" opposite rooms 1 & 2

#### TELEPHONE BOOTH
- 1 small round marble top table
- 1 stool

#### VESTIBULE
- 2 window shades complete

#### OFF HALLWAY NEAR LADIES TOILET
- 1-12' step ladder
- 1-6' step ladder

#### HELPS TOILET
- 1 mirror on wall above wash basin
- 1 Viennese chair
- 2 roller towels rollers

---
NOTE:

The diagram marked Exhibit "A", and following page 8, is referred to and made a part of this page.

LOWER FLOOR

SMALL DRESSING ROOM UNDER STAIRS
1 lounge
3 card tables

SERVING ROOM & HELPS KITCHEN
11 square tables (on looker)
6 round tables
14 large round table tops (to enlarge tables)
4 square tables

1 rocking chair
1 dresser

49 vienna chairs
1 gas range
1 sitting bench
2 large dirty linen baskets
SUB BASEMENT

LOWER BAR
1 Cash Register #510077 self adder
1 cash register #306519 electric
self adder 2 drawers
1-10" 8 day clock
1 back bar counter with looking
glass at back and cabinets each
end, drawers & cuspidors &c. underneath
1 front bar with drawers, drain board and all fixtures connected thereto
1 brass foot rail around outside front bar
1 lunch counter including both back & front counters with drawers,
cupboards & fixtures
1 small copper funnel
1 ice shaver
1 ice pick
1 lemon squeezer
3 galv. iron buckets
2 paper mache tubs
1 wooden mallet
1 rubber mallet
1 service table fitted up with small drawer
1 high stool
16 window shades
5 scrim shades
14 pairs field glasses (Binocular)
1 floor linoleum covering all the sub basement
1 electric piano (Milors)(Nickel in the slot)
8 music rolls
1 wire bat
40 beer glasses
10 lemonade glasses
9 large punch glasses
5 medium punch glasses
6 small punch glasses
4 hot punch glasses
9 sherry glasses
7 claret glasses
9 white wine glasses
6 champagne glasses
12 cocktail glasses
7 Pousse Cafe glasses
6 pony glasses
13 large high ball glasses
11 small high ball glasses
10 soda water glasses
50 whiskey glasses
7 glass steins
36 Cliff House Steins Earthenware
5 large mixing glasses
1 small mixing glass
58 Vienna chairs hard seats
4 Vienna chairs cane seats
6 square tables 4 X 2 1/2
5 square tables 2 1/2 X 2 1/2
6 round tables
1 common square table
1 common round table
15 sugar bowls glass
38 salt 2 pepper shakers glass
15 mustard pots porcelain
SUB BASEMENT

LOWER BAH
10 horse radish glasses
12 serving trays
6 salad bowls glass
1 salad bowl earthenware
1 china butter bowl
38 small butter dishes
24 cream pitchers
6 granite ware pitchers
5-1/2 pint milk pitchers
1 large nickel plated coffee urn
6 tea pots
58 chowder plates
118 meat plates
70 small plates
30 coffee cups
8 small coffee cups
65 saucers
42 ice cream dishes
18 oyster glasses
9 oyster bottoms
3 earthenware pickle dishes
1-5 gallon coffee can
3 soup crocks
1 carving knife
1 galvanized spoons
1 cream ladle
1 wooden salid fork & spoon
3 fly traps
7 jardinieres & plants (plants in 8)
7 self closing door springs
1 plate & dish warmer back of lunch counter
1 strainer
1 patent N.P. cork puller
2 scales nickel in slot weighing
6 single beach chairs
18 double beach chairs
1 looking glass gents toilet
1 looking glass ladies toilet
1 fire hose stands complete with hose & nozzles attached
2-50 ft. length 3/4" garden hose
4 pos. 1 1/2" wire bound hose 200 ft.
1 hat & coat rack 3 hooks Gents toilet
1 porcelain soap dish Gents toilet
1 window hook for pulling down windows Gents toilet
9 tea strainers
1 grind stone
1 hair sweeping broom

ENGINE ROOM
1 electric motor driving the ice machine & ice cream freezer in vegetable room
1 electric motor driving the dish washing machine machinery in kitchen
1 electric motor and compressor for Jarvis oil burner
1 cross cut saw
2 hand saws
3 oil cans
SUB-BASEMENT

ENGINE ROOM

1-50 feet 3/4" hose
1 axe
1 saw set
1 pick
1 shovel
1 spade
1 scaling hammer
1 plumbers pump
1 scraper
1 set (12) drills
1 lantern
1 spirit level
1 hack saw frame
1 ratchet drill
1 vice
1 tube expander
1 file cleaner
1 trowel
2 monkey wrenches
1 brace
4 hammers
2 stetson wrenches
3 pair tongs
1 ripping chisel
1 keel saw
1 pair shears
1 soldering iron
1 pipe cutter
1 cold chisel
1 plumbers torch
3 steel brushes
1 belt punch
1 extension bit
1 pair dies

STORE ROOM UNDER SHED 44' LEVEL

10 round tables
3 square tables
37 Vienna chairs
7' screen doors (3 with self-closing springs)
2 transom sash (1 outside)
2 doors
17 window screens
1 lot of electric fixtures
1 piece of old carpet
120 electric light lamps, 16 C.P. 115 Volts (new)
600 feet No. 14 D Braid electric wire (new)
60 feet 1/8" galv. iron pipe
80 feet 1" galv. iron pipe
6 yards wire screen cloth
13 music stands

CIGAR STAND ON CLIFF AVENUE NORTH OF CLIFF HOUSE

1 glass cigar lighter 2 lights electric
1 cigarette case on wall
1 cigar case on wall
2 back counters glass fronts
1 front counter glass top
1 front counter plain
1 cash register 641630 total adder
1 weighing machine nickel in the slot
6.3 ENGINEERING DATA

6.3.1 Structural and Seismic Calculations
CLIFFHOUSE  SAN FRANCISCO:

SEISMIC UPGRADING STUDY TO MEET THE REQUIREMENTS OF THE 1984
SAN FRANCISCO BUILDING CODE (1979 U.B.C. AMENDED)

INPUT DATA:  No original construction documents or drawings are available at this time.
Dimensions established with a field survey.
Request to open walls and ceilings in key locations was denied by the owner, because it would cause hardship for the present tenants.
Construction materials and floor framing weights will be assumed based on past experience and outer appearance. All assumptions will have to be verified at a later date.

KEY PLANS AND SECTIONS
CLIFF HOUSE
GOLDEN GATE N.R.A.
SAN FRANCISCO, CALIF.

THIRD FLOOR MEZZANINE PLAN
ELEV. 84.42'
CLIFF HOUSE
GOLDEN GATE N.R.A.
SAN FRANCISCO, CALIF.

TYPICAL SECTION
(LOOKING SOUTH)
ASSUMED FLOOR, ROOF AND WALL WEIGHTS FOR
SEISMIC LOADING CALCULATIONS:
## Floor and Wall Weights (Masses)

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slab Over Basement</td>
<td></td>
</tr>
<tr>
<td><strong>6&quot; Conc. Slab</strong></td>
<td>114 lbs/sq.ft</td>
</tr>
<tr>
<td><strong>Beams 150'./lf @ 8' %</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Partitions Inside</strong></td>
<td></td>
</tr>
<tr>
<td><strong>6&quot; Conc. Slab</strong></td>
<td>100 lbs/sq.ft</td>
</tr>
<tr>
<td><strong>Waterproofing Protective Topping</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Outside</strong></td>
<td></td>
</tr>
<tr>
<td>Second Floor Slab (Third Floor Similar)</td>
<td></td>
</tr>
<tr>
<td><strong>2&quot; T&amp;G Deck</strong></td>
<td></td>
</tr>
<tr>
<td>Flooring</td>
<td>50 lbs/sq.ft</td>
</tr>
<tr>
<td>Joists &amp; Beams</td>
<td></td>
</tr>
<tr>
<td>Ceiling (Hung)</td>
<td></td>
</tr>
<tr>
<td>Partitions</td>
<td></td>
</tr>
<tr>
<td>Roof Slab</td>
<td></td>
</tr>
<tr>
<td><strong>2&quot; T&amp;G Deck</strong></td>
<td></td>
</tr>
<tr>
<td>Roofing (Multi-Layers)</td>
<td>40 lbs/sq.ft</td>
</tr>
<tr>
<td>Joists &amp; Beams</td>
<td></td>
</tr>
<tr>
<td>Ceiling (Hung)</td>
<td></td>
</tr>
</tbody>
</table>
FLOOR AND WALL WEIGHTS (CONT'D)

WEST WALL ETA. BASEM. TO 1. FLOOR

BEAM - RAILING 5' x 150 Lbs./F = 750 Lbs./F
COLUMNS 10' x 210 Lbs./F ÷ 8% = 420 Lbs.
FILLER BLOCKS 6' x 70 Lbs./F

1430 Lbs./F

MAIN BUILDING, WEST-NORTH-SOUTH WALL

E 6, 2-13
E 2, B-C
E 13, B-C

CONCRETE/MASONRY/terra-cotta COMBINATION

MASONRY 140 Lbs./F x 40% = 56 Lbs./F
GLASS 20 Lbs./F x 60% = 12 Lbs.

AVERAGE 68 Lbs./F

INTERIOR WALLS IN BASEMENT (ETC, I TO 13 ETC)

ASSUME 12" CONCRETE 150 Lbs./S.F.
OR 17" BRICK 170 LBS/S.F.

INTERIOR WALLS FIRST FLOOR (2. FLOOR SIMILAR)

E C, 2 TO 13
E 2, C TO F
E 13, C TO F

E C ASSUME 13" BRICK 130 Lbs./S.F.

E 2 & 13 LOOK LIKE TWO WALLS 130 Lbs./S.F. EACH
WITH POSSIBLE JOINT BETWEEN THE WALLS
USE 260 Lbs./S.F.
FLOOR AND WALL WEIGHTS (CONT'D)

EXTERIOR EAST WALL, SECOND FLOOR & F.

(RETAINING WALL BELOW 2. FLOOR, SEE SECTION)

WALL  180 Lbs/ft² x 80% sound = 144 Lbs/ft²
20 Lbs/ft² x 20% Class = 4

AVERAGE 148 Lbs/ft²

EXTERIOR GLASS WALL EAST OF & F (SOUTH END)

ALLOW  20 Lbs/ft²

BASE

1979 EDITION 2312

BASE is the level at which the earthquake motions are considered to be imparted to the structure or the level at which the structure as a dynamic vibrator is supported.

FOR THIS BUILDING, THE BASE LEVEL VARIES

FOR EAST-WEST SHOCKS, USE BASEMENT FLOOR AS BASE (EXTERIOR GRADE LEVEL WEST)

FOR NORTH-SOUTH SHOCKS, USE APPLICABLE GRADE LEVEL TO BASEMENT FLOOR & A, B, C, FIRST FLOOR FOR WALL & D, SECOND FLOOR FOR WALL & F

FOR DISTRIBUTION, USE BASEMENT FLOOR AS BASE
10. Sec. 2313. Add a new Section 2313 to read as follows:

Minimum Lateral Force Resistance for Existing Buildings

Sec. 2313. (a) General. This section is applicable only to existing buildings and only when invoked by Section 104(f).

An existing building which has been brought into compliance with the requirements of Section 104(f) of the Building Code in effect of or after May 21, 1973, shall be deemed to comply with this section, except when a vertical extension is to be made, or other alterations are to be made which would increase the mass or reduce the seismic resistance capacity of the building.

The wind and seismic resistance requirements in this section shall apply to the entire building, except where portions are specifically exempted by other provisions. It shall be demonstrated that the building or structure is capable of resisting these forces and safeguarding the occupants and the public.

Consideration shall be given to all aspects of construction which may affect safety, including but not limited to, the quality of the original materials and workmanship, the adequacy of connections between structural members, the degree to which various components of the building are tied together, the capacity and rigidity of diaphragms, the adequacy of building separations, the security of filler walls, panels, glazing, parapets and appendages, and the current condition of the building.

(b) Wind Forces. Every building shall be capable of resisting wind forces as prescribed in Section 2311. The provisions of Section 2309(c) shall not apply if the height of existing walls are not increased.

(c) Seismic Forces. The building shall comply with Section 2312.

EXCEPTIONS: 1. Formula 12-1 may be replaced with the following:

\[ V = K C W \]  \hspace{1cm} (23-1)  

2. Formula 12-2 may be replaced with the following:

\[ C = \frac{0.05}{\sqrt{T}} \]  \hspace{1cm} (23-2)  

and shall be not less than 0.10 for one or two story structures, and need not exceed 0.10 for higher structures.
MASS AT ROOF LEVEL  SUB-BUILDING # 1 - 2

ROOF  59' x 26' = 1534 S.F  @ 40 Lbs/SF = 61,360 LBS
WALL #1 59' x 6' x 20 1/2"  = 7,080 LBS
EAST & WEST WALLS 2 x 26' x 6' x 20 1/2" S.F. = 6,240 LBS
PART WALL #2 59' x 6' x 130 1/2" S.F. = 46,020 LBS

@ ELEV. 100'-8"  -> 120,700 LBS

MASS AT 3.FLOOR LEVEL  SUB-BUILDING # 1 - 2

FLOOR  59' x 26' = 1534 SF  @ 50 Lbs/SF = 76,700 LBS
WALL #1 59' x 14' x 20 1/2" = 16,520 LBS
EAST & WEST WALLS 2 x 26' x 14' x 20 1/2" S.F. = 14,520 LBS
PART OF WALL #2 48' x 14' x 130 1/2" S.F. = 87,360 LBS

@ ELEV. 84,42'  -> 193,140 LBS

MASS AT 2.FLOOR LEVEL  SUB-BUILDING # 1 - 2

FLOOR  59' x 26' = 1534 SF  @ 50 Lbs/SF = 76,700 LBS
WALL #1 59' x 13' x 20 1/2" = 15,340 LBS
EAST & WEST WALLS 2 x 26' x 13' x 20 Lbs/SF = 13,520 LBS
PART OF WALL #2 44' x 13' x 130 1/2" = 74,360 LBS

@ ELEV. 73,26'  -> 179,920 LBS

APPROX 3/4 OF THIS BUILDING IS SUNK ON GRADE
AT THE FIRST FLOOR LEVEL.  (58.75)
USE THIS LEVEL AS BASE
K = 1.33 (BEARING WALLS)

\[ T = \frac{0.05 h_x}{\sqrt{D}} \]

\[ = \frac{0.05 \times 42.8}{\sqrt{59}} = 0.278 \]

\[ C = \frac{0.05}{\sqrt{T}} = 0.0766 \]

\[ V = K \times C \times W \]

\[ = 1.33 \times 0.0766 \times W \]

\[ = 0.102 \ \text{W} \]

\[ W = 120.7 + 195.2 + 179.9 \]

\[ = 495.8 \ \text{k} \]

\[ V = 50.57 \ \text{k} \]

**SUB-BUILDING 1-2**

**DISTRIBUTION**

\[ F_x = \frac{(V - F_x) \cdot w_x \cdot h_x}{\sum w_x h_x} \]

\[ F_x = 0 \quad (T < 0.7) \]

- **ROOF**
  \[ 120.7 \times 42.8 \quad = 5150 \ \text{pl} \quad \rightarrow \quad 5150/1754 \times 50.57 = 22.2 \ \text{k} \]

- **3rd FL.**
  \[ 195.2 \times 20 - 1'' \quad = 3920 \ \text{in} \quad \rightarrow \quad 3920/1754 \times 50.57 = 16.9 \ \text{k} \]

- **2nd FL.**
  \[ 179.9 \times 14.11'' \quad = 2684 \ \text{in} \quad \rightarrow \quad 2684/1754 \times 50.57 = 11.5 \ \text{k} \]

\[ 1754 \]

\[ 50.6\% \]
MASS AT ROOF LEVEL

MAIN ROOF AREA: 86' x 70' = 6020 sf = 240,800 cu ft
SMALL EX. + F/2: 40' x 12' = 480 sf = 19,200 cu ft
3. FL (NE22): 40' x 12' x 50' = 24,000 cu ft
WEST WALL + B: 86' x 12' x 68' = 70,180 cu ft
N 95 WALL + 2 x 13' x 12' = 40,800 cu ft
WALL + 2 3/4' x 10' x 130' = 58,500 cu ft
WALL + 13' C TO F: 48' x 10' x 130' = 62,400 cu ft
INT. WALL + C: 48' x 10' x 130' = 62,400 cu ft

TOTAL: 727,120 cu ft

MASS AT 2. FLOOR LEVEL

(Small 3. FLOOR INCL. 14' ROOF)

SUSPENDED FLOOR AREA: 86' x 70' = 6020 sf = 301,000 cu ft
WEST WALL + B: 86' x 16' x 68' = 93,500 cu ft
SOUTH WALL + 2: 41' x 16' x 68' = 44,610 cu ft
+ 2: 29' x 16' x 130' = 60,320 cu ft
NORTH WALL + 13: 71' x 16' x 68' = 74,880 cu ft
C - F: 45' x 16' x 130' = 156,000 cu ft

TOTAL: 787,580 cu ft

MASS AT 1. FLOOR LEVEL

(EXCL OUTSIDE DECK AREA)

SUSPENDED FLOOR AREA: 86' x 41' x 11' = 401,970 cu ft
WEST WALL + B: 86' x 13' x 68' = 76,050 cu ft
SOUTH WALL + 2: 25' x 13' x 68' = 22,100 cu ft
+ 2: 16' x 13' x 130' = 27,040 cu ft
NORTH WALL + 13: 25' x 13' x 68' = 22,100 cu ft
+ 13: 16' x 13' x 130' = 27,040 cu ft
INT. WALL + C: 86' x 13' x 130' = 145,342 cu ft

TOTAL: 721,620 cu ft
$K = 1.33$ (BEARING WALLS - BOX SYSTEM)

$T = \frac{0.05 \times 44.67}{\sqrt{86}}$

$= 0.241$

$C = \frac{0.05}{\sqrt{T}} = 0.080$

$V = K \times C \times W$

$= 1.33 \times 0.08 \times W$

$= 0.106 \times W$

$W = 727 + 758 + 722$

$= 2207 \text{ k}$

$V = 234 \text{ k}$

**DISTRIBUTION**

Roof $727 \text{ k} \times 44.67 = 32475 \Rightarrow \frac{32475}{6157} \times 234 \text{ k} = 123 \text{ k}$

2. FL $758 \text{ k} \times 26.91 = 20398 \Rightarrow \frac{20398}{6157} \times 234 \text{ k} = 78 \text{ k}$

1. FL $722 \text{ k} \times 12 = 8664 \Rightarrow \frac{8664}{6157} \times 234 \text{ k} = 39 \text{ k}$

$61 \text{ k}$

$234 \text{ k}$
6.3.2 Electrical Diagrams
DIST. PANEL

DIST. SW's

GUTTER

DIST. PANEL

ELEVATION

ELECTRICAL SERVICE ARRAY

NOT TO SCALE
6.4 PROBABLE CONSTRUCTION COSTS
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<tr>
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**SUBTOTAL**

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**TOTAL**

|                          | $1,114,000         | $2,937,800       | $4,005,200     |

**EXCLUDES:** A&E Fee, T&I Fee, Moving Exp., Telephone Co. Charges, PG&E Charges
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<p>| Total                         | 302,000              | 302,000        | 261,000        |</p>
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Total: 81,000 81,000 72,000
### CLIFF HOUSE

#### EXTERIOR WALL SURFACES

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#### INTERIOR WALL SURFACES

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<thead>
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<th>Description</th>
<th>Maintenance/Repair</th>
<th>Rehabilitation</th>
<th>Demo &amp; Replace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patch, Paint, Paint to Match</td>
<td>LS</td>
<td>5,000</td>
<td>LS</td>
</tr>
<tr>
<td>(N) Walls to Match, Quantity 2,410 LF</td>
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<td></td>
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<tr>
<td>(N) Doors to Match, 75 LF</td>
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<td></td>
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<tr>
<td>HANDICAPPED ACCESS</td>
<td>Maintenance &amp; Repair</td>
<td>Rehabilitation</td>
<td>Demo &amp; Replace</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>SECOND FLOOR - Waiting Lounge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remove Raised Floor</td>
<td>575.9 SF  3'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Plan Finish</td>
<td>575.9 SF  3'</td>
<td>2,000</td>
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</tr>
<tr>
<td>R/Reset Part. Backbar</td>
<td>30, LF  60'</td>
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<tr>
<td>Reset Exhibit Outlet, Pd.</td>
<td>LS</td>
<td>2,000</td>
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<tr>
<td>Reset Plumbing</td>
<td>LS</td>
<td>2,400</td>
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<tr>
<td>SECOND FLOOR - Handicapped Bath</td>
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<tr>
<td>Part, Tiling, Clg., Door, Fl.</td>
<td>LS</td>
<td>4,000</td>
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<tr>
<td>Accessories, Misc.</td>
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</tr>
<tr>
<td>Plumbing</td>
<td></td>
<td>3,000</td>
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</tr>
<tr>
<td>Electrical</td>
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</tr>
<tr>
<td>Mechanical</td>
<td></td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>THIRD FLOOR - Relocate Restroom</td>
<td></td>
<td></td>
<td>14,000</td>
</tr>
<tr>
<td>- Remove DR Raised Floor</td>
<td></td>
<td>320.9 SF</td>
<td>3,000</td>
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<tr>
<td>SECOND FLOOR - Remove Raised Floor</td>
<td></td>
<td></td>
<td>9,000</td>
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<tr>
<td>- Move Kitchens to 1st Flr.</td>
<td>LS</td>
<td>10,000</td>
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<tr>
<td>FIRST FLOOR - Reconfigure Toilets</td>
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<td>20,000</td>
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<tr>
<td>&quot; Current Plan &quot; Toilets</td>
<td>LS</td>
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<tr>
<td>&quot; Remove Spec. Raised DR.&quot;</td>
<td>LS</td>
<td>19,000</td>
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<tr>
<td>1</td>
<td>Restore ornamental plaster in DR</td>
<td>LS</td>
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<tr>
<td>Centraline food processing</td>
<td>LS</td>
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<tr>
<td>ELEVATOR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demol &amp; frame floor opening</td>
<td></td>
<td>400.9 SF</td>
<td>4,000</td>
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<tr>
<td>Excavation shaft &amp; RT.</td>
<td>LS</td>
<td>8,000</td>
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<tr>
<td>Shaft Walls &amp; Penthouse</td>
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<td>26,000</td>
<td>26,000</td>
</tr>
<tr>
<td>Elevator 2500 ft. 4 Story</td>
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<td>240,000</td>
</tr>
<tr>
<td>Site</td>
<td>Great Highway Side</td>
<td>Ocean Side</td>
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</tr>
<tr>
<td>------</td>
<td>-------------------</td>
<td>------------</td>
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</tr>
<tr>
<td>Repave Sidewalk</td>
<td>5,500 SF</td>
<td>3' (3)</td>
<td>18,000</td>
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<tr>
<td>Replace Bicy Racks</td>
<td>3 ea</td>
<td>2,000</td>
<td>2,500</td>
</tr>
<tr>
<td>Replace Concrete Lights</td>
<td>2,500</td>
<td>2,500</td>
<td></td>
</tr>
<tr>
<td>Replace Name Lights</td>
<td>3,000</td>
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<td>3,000</td>
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<tr>
<td>New Lighting Ext Stairs</td>
<td>2,000</td>
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<tr>
<td>Demo Underground Slab</td>
<td>14,000 SF</td>
<td>1,000</td>
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<tr>
<td>Demo平衡 Slab</td>
<td>9,300 SF</td>
<td>17,000</td>
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<tr>
<td>Demo Concrete Railing</td>
<td>140 LF</td>
<td>50 LF</td>
<td>11,000</td>
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<tr>
<td>Haul Debris</td>
<td>260 CY</td>
<td>14,000</td>
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<tr>
<td>New Stairs for Village</td>
<td>9,200 SF</td>
<td>4'0</td>
<td>37,000</td>
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<tr>
<td>* Edge Filler</td>
<td>All</td>
<td>1.5</td>
<td>8,000</td>
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<tr>
<td>* Railing</td>
<td>320 LF</td>
<td>320 LF</td>
<td>32,000</td>
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<tr>
<td>Demo Wd stair to E edge of new Pltform</td>
<td>2,000</td>
<td>2,000</td>
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<tr>
<td>New Conc</td>
<td>2,000</td>
<td>8,000</td>
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<tr>
<td>Provide protected sanitary areas</td>
<td>30,000</td>
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<td>202,000</td>
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<td>179,000</td>
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</tbody>
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6.5 BIBLIOGRAPHY OF SOURCES
6.5 Bibliography


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San Francisco, CA 94111

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Project Manager: Hisashi B. Sugaya, AICP
Project Designer: Ronald Reiss
Project Designer: Naomi Okun

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Structural Engineer: Kurt Raillard, SE
Mechanical Engineer: John Castle, PE
Electrical Engineer: Bill Carney, PE

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54 Washburn Street
San Francisco, California 94103

Construction Consultant: Raymond E. Lindahl

Historical data provided by James P. Delgado, National Park Service

PHOTOGRAPHS

Golden Gate National Recreation Area Collection, National Park Service, San Francisco, California

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Architectural Resources Group

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HISTORIC DOCUMENTS