

HISTORIC RESOURCE EVALUATION

Cable Car Barn

San Francisco, California

San Francisco Department of Public Works | September 2021

Architecture
Planning
Conservation



Architectural
Resources Group



Cable Car Barn
Historic Resource Evaluation
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1. INTRODUCTION

1.1 Project Background

At the request of the San Francisco Department of Public Works (DPW), Architectural Resources Group (ARG) has prepared this Historic Resource Evaluation (HRE) for the Cable Car Barn located at 1201 Mason Street (0190/005) in the Nob Hill neighborhood in San Francisco (Figure 1). The property was initially developed as a maintenance and powerhouse facility between 1887 to 1888 for the Ferries & Cliff House Railroad Company, which was one of several cable car operators during the late nineteenth century. The original 1888 three-story, brick masonry building was largely destroyed in the 1906 earthquake and fires but was replaced with the existing two-story building the following year by the United Railroads of San Francisco; the 1888 foundations and lower 85 feet of the original smokestack were incorporated into the replacement building. Since its completion in 1908, the Cable Car Barn has continued to serve as a center for cable car operations in the city, now under the ownership of the San Francisco Municipal Transportation Agency (SFMTA). The building has undergone multiple alterations since its reconstruction in 1908 to improve maintenance and operation capacities and to provide an onsite museum dedicated to the history of the cable cars.



Figure 1. Aerial photograph of the Cable Car Barn at 1201 Mason Street and immediate vicinity. The location of subject property outlined in red (Google Earth, 2021; amended by author).

Beginning in the 1960s, the Cable Car Barn has been recognized as an integral component of the San Francisco cable car network, which has been preserved as an iconic historic feature of the city. In 1964, the San Francisco Cable Cars system, including the Cable Car Barn, cable cars, and tracks, was designated as a National Historic Landmark. The cable car system was subsequently listed in the National Register of Historic Places (National Register) and California Register of Historical Resources (California Register). In 1971, the Cable Car Barn was designated separately as San Francisco Landmark No. 43. As such, the building is a historical resource under the California Environmental Quality Act (CEQA).

The San Francisco DPW is currently completing a Master Plan for the Cable Bar Barn. The goals of the project are to optimize allocation of space in the Cable Car Barn for function and workflow and to ensure that all aspects of the space are architecturally and structurally sound and appropriate for their chosen functions. The building last underwent an extensive renovation in the early 1980s, when the majority of the interior was replaced, select windows were replaced, and new entrances for cable cars and for the museum were added. Since these alterations post-date the property's historic designations at the national, state, and local levels in the 1960s and early 1970s, this HRE report provides an updated historic context, construction chronology, and integrity assessment to confirm that the Cable Car Barn remains a historic resource under CEQA. This report also provides a list of character-defining features to inform DPW's Cable Car Barn Master Planning effort and future projects at the property.

1.2 Current Historic Status

Since the 1960s, the Cable Car Barn has been recognized as a historic resource at the national, state, and local level, primarily as a contributor to the broader San Francisco Cable Car system. Thus, the property is a historical resource under CEQA and is currently classified by the San Francisco Planning Department as "Category A – Historic Resource Present."¹ The following section provides a summary of its historic designations, and a copy of the corresponding documentation is included in Appendix B.

National Historic Landmark

The San Francisco Cable Car system, which includes the Cable Car Barn as a contributing feature, was designated as a National Historic Landmark in 1964. While the initial documentation outlining the San Francisco Cable Car National Historic Landmark was brief, subsequent documentation identified the individual cable cars, tracks and cables, turning platforms, other operating equipment and infrastructure, and the Cable Car Barn building (identified as the "Cable Car Barn and Powerhouse") as contributing features.²

National Register of Historic Places

In 1966, the San Francisco Cable Car network was automatically listed in the National Register due to its National Historic Landmark status. In 1978, a National Register nomination form was prepared and identifies the Cable Car Barn as a contributing feature to the historic property.³

Historic American Engineering Record (HAER)

In 1981, the Cable Car Barn was documented as a contributor to the San Francisco Cable Car system (identified as the San Francisco Cable Railway) through the Historic American Engineering Record (HAER) program, which is administered by the National Park Service. The HAER documentation, which includes a written history, measured drawings, and large-format photographs, was prepared to document the cable car system, including the Cable Car

1 San Francisco Planning Department, Property Information Map, accessed July 13, 2021, [https://sfplanninggis.org/pim/?tab=Historic Preservation&search=1201+Mason+Street](https://sfplanninggis.org/pim/?tab=Historic%20Preservation&search=1201+Mason+Street).

2 National Park Service, "National Register of Historic Places Inventory – Nomination Form: San Francisco Cable Cars," prepared by James Dillon, 1978, 2.

3 Ibid., 1-2.

Barn, prior to the large renovation campaign completed in 1984. The HAER documentation attests to the significance of the Cable Car Barn as a contributing feature within the San Francisco Cable Car system.⁴

California Register of Historical Resources

The San Francisco Cable Car system, including the Cable Car Barn, has been automatically listed in the California Register following its listing in the National Register. As such, the system has been assigned California Historical Resource (CHR) Status Code of 1S, as an “individual property listed in the [National Register] by the Keeper. Listed in the [California Register]” in the California Historical Resource Information System (CHRIS).⁵ The CHRIS is maintained by the California Office of Historic Preservation as a comprehensive database of properties that have been evaluated or reviewed for historical significance throughout California.⁶

San Francisco Landmark

In 1971, the Cable Car Barn (identified as the “Cable Car Barn and Power House”) was individually designated a San Francisco Landmark No. 43. It was identified as significant as “the only surviving cable car barn and [powerhouse] in the city.”⁷ The landmark designation also states that the exterior of the Cable Car Barn should be preserved as an “excellent example of industrial construction.”⁸

1976 Citywide Architectural Survey

Between 1974 and 1976, the San Francisco Planning Department surveyed thousands of buildings throughout the city and assigned each building a numerical rating from -2 to 5, with 5 as the highest rating.⁹ The Cable Car Barn was surveyed in 1975 and given a summary rating of 3, while also noting that it is a rare brick industrial building in area and featured “splendid” interiors.

1.3 Methodology

To complete this HRE for the Cable Car Barn, ARG:

- Conducted a site visit to examine the existing condition of the subject property on April 7, 2021;
- Conducted preliminary archival research at the San Francisco Recorder’s Office, San Francisco Department of Building Inspection, and San Francisco Public Library History Room;
- Reviewed digital repositories, including the Internet Archive, SFMTA Photo Collection and Archive, *San Francisco Chronicle* Historical Database, and California Digital Newspaper Collection; and

4 Patrick W. O’Bannon, Marcia Osterhout and Steven Petrow, “San Francisco Cable Railway, Washington and Mason Streets, San Francisco, San Francisco County, California,” *Historic American Engineering Record*, HAER No. CA-12 (Washington D.C.: Department of the Interior, National Park Service, 1981).

5 California Office of Historic Preservation, “California Historical Resource Status Codes,” published December 8, 2003, accessed August 8, 2021, <https://ohp.parks.ca.gov/pages/1069/files/chrstatus%20codes.pdf>.

6 National Park Service, “National Register of Historic Places Inventory – Nomination Form: San Francisco Cable Cars,” 2.

7 City and County of San Francisco Planning Commission, *San Francisco Cable Car Barn and Powerhouse Landmark Designation*, Resolution No. 6725, April 28, 1971, 1.

8 *Ibid.*, 2.

9 San Francisco Planning Department, “San Francisco Preservation Bulletin No. 15: Parcel Information Database: Understanding the Survey Ratings Tab,” July 25, 2003, accessed July 1, 2021, <http://sf-planning.org/sites/default/files/FileCenter/Documents/5093-PresBulletin15PARCELINFO.PDF>.

- Reviewed resources such as Sanborn Fire Insurance Maps, city directories, building permits and plans, historic newspaper articles and photographs, and other primary and secondary sources regarding the Cable Car Barn property.

2. PHYSICAL DESCRIPTION

The following section provides a preliminary physical description of the exterior and interior of the Cable Car Barn; additional existing conditions photographs are provided in Appendix A.

The Cable Car Barn is a two-story-over-basement brick masonry building located within an irregular parcel at the northwest corner of Washington and Mason streets in San Francisco, California. It was completed in 1908 to replace the original 1888, three-story cable car barn and powerhouse destroyed in the 1906 earthquake and fires. The current building was constructed on the footings and foundations of the original building. These features, and the remaining shortened portion of the smokestack at the southwest corner of the building, are the only remnants of the original 1888 cable car barn and powerhouse.

The building is constructed to the property lines and largely fronts Mason Street to the east and Washington Street to the south. It includes a panhandle extension along the rear property line north toward Jackson Street. The north façade directly abuts the north-adjacent properties. The 1908 brick masonry façades create a box-like massing with a predominantly flat roof profile (Figure 2). The shortened smokestack at the southwest corner adds some verticality to the massing, although the horizontality of the building defines the building. A pair of string courses visually separate the first and second floors. The fenestration includes regularly spaced, multi-lite steel windows with awning or fixed sashes. The first-floor fenestration typically feature low-pitched, segmented arch openings, whereas the second-floor windows have a segmented or rounded arch transoms (Figure 3). Large entrance door assemblies with sidelights and transoms are located throughout the envelope that cater to both pedestrians and vehicles. Some of these entrances provide interior access for San Francisco's cable cars, which are located at the rear of the building and front Washington and Jackson streets (Figure 4). A third-floor penthouse addition is setback within the roof and is partially visible from the north façade. It is defined by a stucco veneer with elongated hipped skylights.



Figure 2. East (right) and south (left) façades of the Cable Car Barn at 1201 Mason Street, view northwest (ARG, April 2021).



Figure 3. Southeast corner of the Cable Car Barn, with typical fenestration, view northwest (ARG, April 2021).



Figure 4. North cable car entrance at Jackson Street, view south (ARG, April 2021).

The interior of the building is organized by use with the cable systems located on the basement and first floor; a museum located at the mezzanine; cable car maintenance and operations located on the second floor; and a series of offices and administrative spaces at the third-floor penthouse level. The first floor is defined by a large open volume with the winding equipment and engines and cable tension run extending diagonal through the space (Figure 5). This diagonal orientation of the winding equipment and tension run is consistent with the Cable Car Barn's original design, although the equipment and associated components have been updated and replaced since its they were originally installed. Operator rooms and a machine shop and storage that caters to the maintenance of the cables and drive system is located immediately adjacent. Overlooking the ground floor on the south side of the interior is an elevated mezzanine deck occupied by the museum. The second-floor features maintenance bays and pits for the cable cars, which enter the property along to the north and south from Jackson and Washington streets, respectively, and are distributed through the interior through a series tracks accessed by a large turntable. The third-floor penthouse features offices, break rooms, training and conference spaces, and similar administrative spaces. The second- and third-floor interiors date to the 1980s remodel, which removed most of the pre-existing interior fabric of the Cable Car Barn.



Figure 5. First-floor interior of the Cable Car Barn with winding equipment and tension run (center), machine shop space (right), and museum mezzanine (left), view northwest (ARG, April 2021).

3. CONSTRUCTION CHRONOLOGY

3.1 Site History

The following section provides a history of the site, specifically outlining the evolution of the property since its initial use as a cable car barn and powerhouse, as well as the companies and entities associated with the ownership and operation of the property. Sanborn Fire Insurance Maps for the subject property are included as Appendix C, and additional historic photographs are included in Appendix D.

Early Period, 1888-1906

The first Cable Car Barn at 1201 Mason Street was constructed by the Ferries & Cliff House Railway in 1888. Prior to the acquisition of the property by the Ferries & Cliff House Railway in 1886, much of the subject property was used as a boarding stable (Figure 6). The Ferries & Cliff House Railway hired engineer Howard C. Holmes to design its cable car system. At the center of this system was the cable car barn and powerhouse, which housed the boilers, steam engines, cable winding equipment, and cable car maintenance space. Construction of the original foundations began in February 1887, and construction of the exterior façade was well underway by that June.¹⁰ The three-story, brick masonry building was completed in 1888 and featured regularly spaced windows openings, a gabled parapet, and an elongated smokestack (Figures 7).

¹⁰ O'Bannon, "San Francisco Cable Railway," HAER No. CA-12, 38.

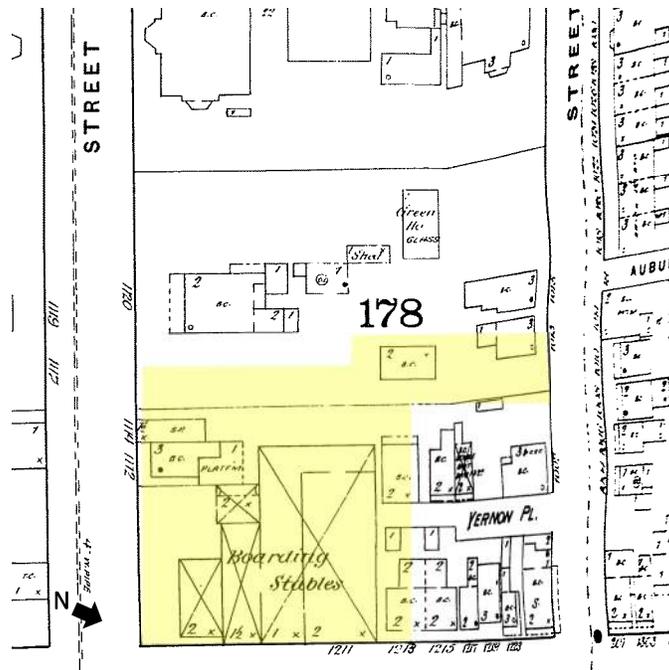


Figure 6. 1886 Sanborn Fire Insurance Map, Volume 2, Sheet 34a; approximate boundary of the current parcel is highlighted in yellow (San Francisco Public Library; amended by author).



Figure 7. East façade of the original 1888 Cable Car Barn and Powerhouse at 1201 Mason Street, view northwest from Mason Street, 1904 (SFMTA Collection and Archives).

The Ferries & Cliff House Railroad was founded by W. J. Adams, a San Francisco-based lumber dealer and sawmill owner. In the mid-1880s, Adams was developing plans for a cable car line to extend north-south along Powell

car line that served as the city's first cable car route was incorporated into Ferries & Cliff House Railroad's Clay-Sacramento route. This cable car line opened in 1892 and provided the company with access to the Ferry Building. However, the rapid expansion of the Ferries & Cliff House Railroad accrued substantial debts for the company. In 1893, the Ferries & Cliff House Railroad was acquired by the Market Street Railway, a competing cable car operator. As part of the acquisition, original Cable Car Barn and all of the Ferries & Cliff House Railroad cable car infrastructure was transferred to the Market Street Railway. Almost immediately after, the Market Street Railway replaced much of the original cable winding equipment, boilers, and engines within the original Cable Car Barn at 1201 Mason Street. It also introduced a new figure-eight drive and sheave system to drive the cables out of the powerhouse, although the original diagonal layout of the tension run developed by Howard C. Helms was retained.¹⁴

In 1902, the Market Street Railway was purchased by the United Railroads of San Francisco (United Railroads). United Railroads was primarily owned by investors in the eastern states but began investing aggressively in San Francisco during this period. In addition to the Market Street Railway, United Railroads also acquired several other transportation other companies, including electric trolley lines, which were becoming more commonplace as a more affordable and less complicated mode of transportation compared to the cable cars. That same year that United Railroads acquired the Cable Car Barn and all of the associated cable car infrastructure, a three-story brick annex was attached at the north elevation of the subject building towards Jackson Street. This annex increased the square footage for storage and maintenance of the cable cars, while also creating a new cable car entrance from the hillside on Jackson Street. This expanded maintenance area and new Jackson Street entrance was serviced by a new turntable constructed towards the rear of the property.¹⁵ This development gave the property an irregular layout bounded by Washington Street to the south, Mason Street to the east, and Jackson Street to the north, which is largely consistent with the current configuration.

Reconstruction and Decline, 1906-1944

In 1906, the earthquake and fires decimated much of the United Railroads cable car rolling stock, cable car lines and tracks, and many of the powerhouses and cable car barns. The company immediately began reconstructing infrastructure and restoring cable car services

The original Cable Car Barn sustained noteworthy damage during the earthquake but was largely destroyed in the subsequent fires (Figure 9). United Railroads cleared much of the site, leaving the existing footings and foundations, as well as the remaining portion of the original 1888 smokestack (Figure 10).¹⁶ Construction of the current Cable Car Barn began the following year and continued into 1908. The replacement building was designed by architect H. K. Stevens and cost \$75,000.¹⁷ It featured a slightly expanded, irregular footprint compared to the original but was at a reduced height of two stories (Figures 11, 12). The brick masonry façade was notably more austere than the original with simple brickwork detailing, arched window openings, and a flat roof profile, although a small gabled portion was located at the north portion of the east façade. The smokestack was retained, albeit at a reduced height from 185 feet to 89 feet.¹⁸ At the interior, the diagonal orientation for the winding equipment and tension run was retained at the ground floor, which also included machine shop spaces. The second floor, which was supported by steel columns and beams, housed the cable car storage, cable car maintenance facilities, and administrative offices. During reconstruction of the Cable Car Barn, the United Railroads used temporary team engines and winding equipment housed in wooden sheds to continue operating the cable car lines.¹⁹

14 O'Bannon, "San Francisco Cable Railway," HAER No. CA-12, 39.

15 Ibid., 40.

16 Ibid.

17 San Francisco Department of Building and Inspection, "Application for Building Permit – Brick Building," Permit No. 6881, December 26, 1906.

18 O'Bannon, "San Francisco Cable Railway," HAER No. CA-12, 41.

19 O'Bannon, "San Francisco Cable Railway," HAER No. CA-12, 41.



Figure 9. Remnants of the 1888 Cable Car Barn after the 1906 earthquake and fires, view northwest, May 1906 (SFMTA Photo Collection and Archives).



Figure 10. Current Cable Car Barn under construction, view northwest, March 1907 (SFMTA Photo Collection and Archives).



Figure 11. Cable Car Barn after reconstruction, view northwest from corner of Mason and Washington streets, August 1921 (SFMTA Photo Collection and Archives).

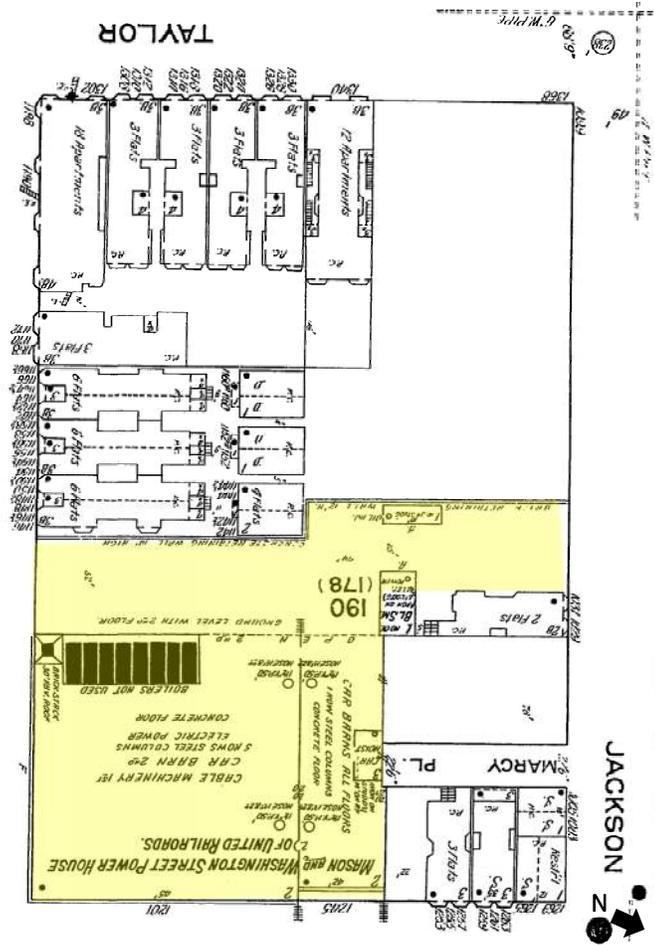


Figure 12. 1913 Sanborn Fire Insurance Map, Volume 1, Sheet 73; the approximate boundary of the current parcel is highlighted in yellow (San Francisco Public Library; amended by author).

In 1912, United Railroads replaced the steam engines with a new electric motor system, which required a 275kw substation to be installed within the building. Some steam engines would remain onsite for backup generation until 1924 when the last steam engines and boilers were replaced with electric motors.²⁰ As such, 1924 was the last year that the Cable Car Barn had the capacity to use steam power in its powerhouse function.

In 1918, the United Railroads was bankrupt. Its assets were reorganized and rebranded in 1921 under the former Market Street Railway name. The second iteration of the Market Street Railway would continue to operate the former Ferries & Cliff Hose Railroad lines over the follow years with the Cable Car Barn as a key center of operations. However, with the proliferation of electric trolleys and eventual bus transportation options through the early to mid-twentieth century, cable cars were becoming expensive, impractical, and obsolete. In 1942, the Market Street Railway stopped operating the Clay-Sacramento cable car line, which included remnants of the first 1873 cable car line founded by Andrew Hallidie. In 1944, the Market Street Railway was purchased by the city through the San Francisco Municipal Railway (Muni).

20 O'Bannon, "San Francisco Cable Railway," HAER No. CA-12, 41.

City Ownership and Heritage Tourism, 1944-Present

In 1944, Muni acquired the Market Street Railway and its cable car line assets, including the subject property. Although the cable cars were an antiquated technology, their value to the city as living history was becoming apparent. In 1952, Muni also acquired the other remaining cable car company, the California Street Railroad. This gave the city control over all of the remaining cable car lines in San Francisco. Soon after, Muni began integrating the California Street Railroad system into the former Market Street Railway infrastructure.²¹ Between 1956 and 1957, Muni consolidated the operations of the California Street lines into the Cable Car Barn, which required a substantial renovation of the mechanical equipment in the building.²² Despite funding issues, the project was completed, and all of San Francisco's cable car lines were operated out of the subject property.²³ In 1960, Muni began another renovation at the Cable Car Barn by converting the former boiler spaces along the west portion of the first floor into office space.

In 1965, Muni announced plans to rehabilitate the Cable Car Barn and include a new museum space. Publications at the time clearly demonstrate the excitement of the project and the preservation of the property, particularly in contrast to the aggressive redevelopment programs of the period.²⁴ In 1967, the mezzanine floor was constructed at the southern portion of the building to accommodate a new cable car museum and viewing platform of the winding machinery and tension run. As part of this, the southern ground floor window at the east Mason Street façade was converted to a new museum entrance (Figure 13). The brick masonry envelope, which was painted white ca. 1960, was also sandblasted and late nineteenth and early twentieth century period-inspired elements, such as an awning canopy above the museum entrance and gas lamp-inspired streetlights were added; the "Ferries & Cliff House Railway Co." signage was first installed in 1966, as were two additional flagpoles at the southeast corner of the roof to total three.²⁵ The new cable car museum was dedicated on November 10, 1967 by then U.S. Secretary of Transportation Alan S. Boyd.²⁶ However, despite the recent work, it was recognized by city officials that more would be required to maintain the Cable Car Barn. In 1969, the city formed a citizens committee to continue to oversee and advise on the further restoration and operation efforts at the Cable Car Barn.²⁷

21 O'Bannon, "San Francisco Cable Railway," HAER No. CA-12, 23-24.

22 Ibid., 37.

23 Richard Reinhardt, "Bid Too High – New Delay on Cal Cable," *San Francisco Chronicle*, June 7, 1957.

24 "Cable Car Museum," *San Francisco Chronicle*, July 5, 1965.

25 O'Bannon, "San Francisco Cable Railway," HAER No. CA-142.

26 Elmont Waite, "Why Cable Cars Survive – High Praise from U.S. Official," *San Francisco Chronicle*, November 11, 1967.

27 Jerry Burns, "Barn, Palace – Big Plans for Two Landmarks," *San Francisco Chronicle*, August 5, 1969.



Figure 13. Cable Car Barn after the 1967 renovation with the new museum entrance at the southeast corner, view northwest from corner of Mason and Washington streets, July 1968 (SFMTA Photo Collection and Archives).

The Cable Car Barn changed little through the 1970s. This period was also marked by a series of labor disputes between the cable car workers, represented by the Transport Workers Union, and the city. Notable incidents included an altercation between Muni cable car operators and the San Francisco Police Department following a traffic incident in November 1970, as well as a series of strikes in the mid to late 1970s stemming from an increasing number of fatal accidents, deteriorated working conditions, and constant shutdowns resulting in widespread frustrations among the public, all resulting in poor morale. These incidents were attributed to the deteriorating condition of the cable car infrastructure.²⁸ With publicized accidents, infrequent service, and worker frustrations, Muni began to invest in a series of improvements to the system. The San Francisco Public Utilities Commission allocated more than \$15 million into a preventative maintenance program in 1977, largely intended to improve multiple safety violations.²⁹

By the early 1980s, a major rehabilitation campaign began for the cable car network and Cable Car Barn. The subject building itself was seen as in desperate need of repairs and unable to support the continued operation of the cable cars. To remedy this, the entire interior volume of the Cable Car Barn was removed, saving the south and east façades and portions of the west façades, as well as the smokestack at the exterior (Figure 14). The new interior would feature new equipment and spaces to operate and support the cable car system, although the new winding equipment and tension run would be installed in the same diagonal configuration within the main interior

28 "Brawl Sith Police Shuts Down Cable Cars," *San Francisco Chronicle*, November 6, 1970; Susan Ehmer, "The Cable Crisis," *San Francisco Chronicle*, August 10, 1976; Katy Butler, "Cable Car Crisis Over – For Now," *San Francisco Chronicle*, August 13, 1976; Larry D. Hatfield, "The Cable cars aren't safe, says injured Muni Gripman," *San Francisco Examiner*, August 22, 1976; Harry Jupiter and Stephen Hall, "New Cable Car Crash Sets off Wildcat Strike," *San Francisco Chronicle*, November 15, 1978; Dick Nolan, "The Cable Car Story Again," *The S.F. Sunday Examiner and Chronicle*, August 19, 1979.

29 Maitland Zane, "Muni Maintenance Funds in PUC Budget," *San Francisco Chronicle*, January 12, 1977.

volume. The original exterior windows with their single-hung lower sashes were replaced. However, the replacement windows matched the appearance of the original, except with awning sashes instead of single-hung sashes at the lower lites. Towards the rear of the property, new arched cable car entrance openings were constructed facing Washington and Jackson streets, providing a controlled pass through for the cable cars entering and exiting the maintenance floor of the Cable Car Barn. Previously, these entrances were to the property were an open yard and the addition of the brick masonry archways with metal doors provided an added layer of security. Additionally, a secondary cable car museum entrance was constructed along the south façade and features brick masonry with a hipped skylight. The new entrances were designed to be compatible with the existing architecture of the Cable Car Barn, primarily through the use of arched openings and brick masonry construction.

Within the stabilized 1908 envelope, an entirely new interior was constructed. Some similarities to the previous floorplan were maintained, such as the diagonal orientation of the winding equipment and tension run, the museum mezzanine, and the separation of spaces with the machine shop at the ground floor and cable car maintenance and storage at the second floor. However, these spaces featured entirely new infrastructure, including a new turntable. A third-level penthouse floor was also added, which created additional offices, meeting spaces, and break rooms for employees. The total cable car renovation project cost \$18 million, which was part of the larger \$58 million cable car reconstruction project.³⁰ The entire project was conducted on an aggressive schedule in order to be completed for the 1984 Democratic Convention being held in San Francisco. The renovated Cable Car Barn was dedicated by Mayor Diane Feinstein on June 4, 1984.³¹



Figure 14. Renovation of the Cable Car Barn with the interior removed and 1908 façades stabilized, view east, ca. 1982 (San Francisco Public Library, Historical Photograph Collection).

30 San Francisco Municipal Railway, "5-Year Plan: 1982-1987 – Capital Improvement Program," Vol 2, 1982, 1.

31 Chris Steward, "Mayor Overdoes It," *San Francisco Chronicle*, September 9, 1983.

Since the major renovation, improvements to the building have largely been in the form of tenant improvements with the alteration of offices and fire and life safety systems and telecommunication improvements. In 1999, San Francisco voters approved a proposing to combine Muni and the Department of Parking and Traffic into a single agency now known as the SFMTA. Muni officially became part of the new agency in March 2000.³² The building continues to operate as the center for the cable car line, as well as a cable car museum.

3.2 Permit History

Table 1 below lists the building permits on file at the San Francisco Department of Building Inspection (DBI) for the Cable Car Barn at 1201 Mason Street. A copy of the building permit record is included in Appendix D of this report.

Table 1. Subject Property Building Permit History

| Date | Permit No. | Architect/Builder | Description |
|------------|------------|--|---|
| 12/26/1906 | 6681 | H.K. Stevens, Architect American Hawaiian Engineering and Construction Company, Builder | Application for Brick Building at 1201 Mason Street – Powerhouse and Car House on existing foundations. Two-story, 48’ tall building with wood joists on steel beams and brick masonry walls. |
| 10/06/1960 | 215817 | T. M. Cormick, Builder | Alterations to interior walls. |
| 04/13/1961 | 222513 | Public Utilities Engineering Bureau, Architect | Additional washroom. |
| 09/08/1982 | 498143 | T. M. Cormick, Builder | Alterations of the cable car garage, maintenance area, and machine shop. Demolition, earthwork, caissons, concrete and masonry, structural steel, carpentry, roofing, waterproofing, doors, windows and glass, plastering, floor and wall finishing, building specialties, carpeting, passenger and freight elevators, cranes, turntables, plumbing, heating and ventilation, fire protection and electrical. |
| 10/08/1982 | 495988 | Public Utilities Engineering Bureau, Architect Robert L. Sage, Builder | Non-structural demolition and alterations pursuant to pending construction of work. |
| 11/16/1982 | 495902 | Chin & Hensolt Engineers, Inc., Architect Tutor-Saliba, Inc., Builder | Structural shoring for exterior walls during building alteration. |
| 3/9/1983 | 500101 | Chin & Hensolt Engineers, Inc., Architect Tutor-Saliba, Inc., Builder | Structural shoring for main cable sheave pit. |
| 4/25/1983 | 501261 | Chin & Hensolt Engineers, Inc., Architect Tutor-Saliba, Inc., Builder | Structural shoring – areaway. |

³² Chris Steward, “Mayor Overdoes It,” *San Francisco Chronicle*, September 9, 1983.

| Date | Permit No. | Architect/Builder | Description |
|------------|------------|--|---|
| 2/6/1984 | 512214 | Chin &Hensolt Engineers, Inc., Architect Tutor-Saliba, Inc., Builder | Fire protection sprinkler system. |
| 9/12/1986 | 555259 | Stop Fire, Inc., Engineer and Builder | Fire detection and suppression system to be installed in Electrical Equipment Room, Control Room. |
| 1/10/1992 | 725585 | Public Utilities Engineering Bureau, Architect | Addition of mezzanine offices. |
| 12/16/1999 | 897450 | Stop Fire, Inc., Engineer and Builder | Upgrades to existing fire sprinkler system. |
| 3/23/2015 | 1352698 | International Fire Equipment, Engineer and Builder | Install 2 fire sprinkler heads in new office. |
| 8/5/2015 | 1365250 | Antonio Genoese, Architect Champion Telecom, Builder | Install DIS server. Install cables hyper flex, fiber optic, DC in conduits and trays. Install radio cabinet. Install antennae on ballast mounts on roof and building. |

4. HISTORIC CONTEXT

The following section provides a focused historic context for the development of the Cable Car Barn.

4.1 San Francisco Cable Car Network

The cable car was invented between 1869 and 1873 in San Francisco by engineer Andrew Smith Hallidie. Hallidie had come to San Francisco in 1852 from Great Britain as part of the California Gold Rush. Upon arriving, he began using wire rope cable, an invention of his father's that he improved upon and manufactured in San Francisco, into bridge construction and mining conveyance systems throughout the gold fields of California.³³ When Hallidie began operating the first cable car in August 1873 under the Clay Street Hill Railroad company, horse drawn trolley networks had been the norm for public transportation. However, these systems were often dangerous and limited by San Francisco's steep and varied topography. With the introduction of the cable car, new areas of the city were open to a rapid wave of real estate speculation and development.³⁴

The success of the Clay Street Hill Railroad spurred the founding of several other transportation companies that used the cable car model, including the Sutter Street Railroad (1877); California Street Cable Railroad (1878); Geary Street, Park & Ocean Railroad (1880); Presidio & Ferries Railroad (1882), Market Street Cable Railway (1883); Ferries & Cliff House Railway (1888); and the Omnibus Railroad & Cable Company (1889). During the late nineteenth and early twentieth centuries, these cable car companies would construct over fifty-three miles of tracks and cable lines throughout the city.³⁵ Each cable car company used at least one cable car barn and powerhouse as the center of their operations and occasionally more where long cable alignments required separate facilities for the necessary winding and cable driving equipment on specific routes. These cable car barn

³³ Gray Brechin, *Imperial San Francisco: Urban Power, Earthly Ruin* (Berkeley: University of California Press, 2001), 65.

³⁴ Ibid.

³⁵ San Francisco Municipal Transportation Agency, "Cable Car History," accessed July 1, 2021, <https://www.sfmta.com/getting-around/muni/cable-cars/cable-car-history>.

and powerhouse facilities were occasionally replaced with new buildings as operations expanded and technology changed.³⁶

The Market Street Railway was founded in the 1860s as the Market Street Cable Railway Company, which operated an early horsecar line in San Francisco. The company was converted to cable cars in the early 1880s after major investments from Leland Stanford, Charles F. Crocker, and Henry Huntington, all members of the “Big Four” responsible for the transcontinental railroad and the founding of the Southern Pacific Railroad. The Market Street Railway company operated one of the largest networks of cable car lines that branched from its central line that extended along Market Street, serving the Mission District, Golden Gate Park, and the Western Addition. In 1893, under the presidency of Leland Stanford, the Market Street Cable Railway acquired the Ferries & Cliff House Railroad, the Omnibus Railroad & Cable Company, and two horsecar line operators into a single company under the name “Market Street Railway.”

Prior to 1906, the public transportation network in San Francisco was a mixture of cable car, horsecar, and electric streetcars that were operated by private companies, many of which had been acquired by the Union Railroad in the years prior. However, the earthquake and fires destroyed most of the cable car infrastructure throughout the city, including the cable car barns and powerhouses. In many instances, the rebuilding period allowed cable car companies to improve upon the systems with new mechanical systems and technology. At the same time as the cable cars were rebuilding, new electric streetcar systems were becoming more common on the streets of San Francisco. These overhead wire-based streetcar networks were significantly cheaper to construct and maintain compared to the below-grade cable driven systems of the cable cars.

In 1909, voters approved the formation of a publicly owned transportation agency and system, which led to the creation of Muni. By 1912, Muni was operating an overhead wire-based electric streetcar line along Geary Street.³⁷ Over the following years, Muni rapidly expanded their electric streetcar system throughout the city, often using a series of tunnels to navigate the varied terrain of San Francisco, which was another noted advantage over the existing cable car system. The electric streetcar model would continue to be used by Muni, although buses were introduced increasingly during the 1930s and 1940s, often favored for being cheaper and more flexible.³⁸

During the 1910s and 1920s, cable car companies shifted to electric driven engines from steam, although the widespread adoption of the automobile and introduction of buses during the 1930s and 1940s made the inflexible and expensive cable cars increasingly obsolete.³⁹ With many of the cable car lines removed by the 1940s, the Citizens Committee to Save the Cable Cars was founded and advocated for the maintenance, preservation, and continued operations of the remaining cable car lines. It was recognized that the cable cars were not an effective form of public transportation as buses became the predominant form of transportation, but were now an important tourist draw and a defining element of San Francisco’s character. The city acquired the remaining cable car infrastructure through the 1940s and 1950s as part of Muni, which continues to operate the cable cars under the SFMTA.⁴⁰

4.2 Cable Car Barns and Powerhouses

All of the cable car companies in San Francisco used cable car barns and powerhouses as a central component of their operations. First and foremost, these buildings would house the mechanical equipment to drive the cable systems throughout one or more cable lines. Initially, this was done through steam power, which required large

36 O’Bannon, “San Francisco Cable Railway,” HAER No. CA-12, 43.

37 Western Railway Museum, “San Francisco Municipal Railway,” accessed July 6, 2021, <https://www.wrm.org/about/railroad-history/san-francisco-municipal-railway>.

38 San Francisco Municipal Transportation Agency, “Muni History,” accessed July 6, 2021, <https://www.sfmta.com/getting-around/muni/muni-history>.

39 O’Bannon, “San Francisco Cable Railway,” HAER No. CA-12, 43.

40 San Francisco Municipal Transportation Agency, “Cable Car History.”

boilers and steam engines that would drive the large winding wheels and supporting equipment; conversion to electric-driven engines became more common particularly in the aftermath of the 1906 earthquake and fires, which damaged many of the cable car lines and support buildings.⁴¹ The second function included in the cable car barns and powerhouses was the housing of the cable cars themselves. This required large garage spaces to facilitate storage and maintenance of the cable cars when they were not in use. Additionally, administrative and office spaces were often included alongside the garage portion. Typically, these uses were separated in the building with the mechanical and winding systems located in large basements and below grade vaults, whereas the cable car maintenance, storage use, and administration offices were relegated to the upper floors of the building. Where large sites could accommodate a larger footprint, cable car barns and powerhouses may have a large layout with these various functions over a single floor. In other instances, these buildings were sited on the hillsides of San Francisco, which led to a split-level organization of the building floor plates that could use gravity when bringing cable cars into the garage portion. This integration into the hillside often resulted in cable car barn functions being set on the second story.

Approximately a dozen or so cable car barns and powerhouses were constructed in San Francisco between the 1870s and early twentieth century. These buildings were not uniform in style and appearance, although most appeared to have exhibited an industrial quality.⁴² This was emphasized by the smokestacks required as part of the original steam power driving systems, as well as the large floorplans with square or rectilinear layouts that used large portions of a subject city block. Where possible, cable car companies would consolidate their winding equipment for multiple lines into a single building, although particularly long cable car lines often required separate powerhouses in order to effectively drive the necessary lengths of cable. Cable car barns featured various materials, including exposed brick masonry, stucco veneer, and wood siding, as well as a mixture of stylistic details and ornamentation (Figures 15, 16). Of the cable car barns and powerhouses constructed throughout San Francisco, only the Cable Car Barn at 1201 Mason Street is extant.⁴³

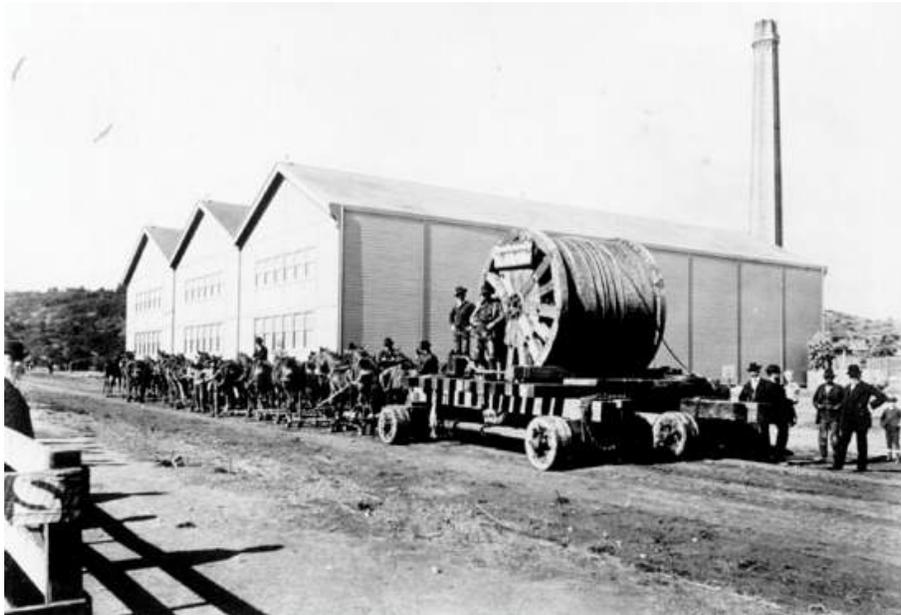


Figure 15. Market Street Cable Railway cable car barn and powerhouse for the McAllister Street cable car route, located at the corner of Fulton and Central streets, 1882 (San Francisco Public Library, Historical Photograph Collection).

41 The following section is derived from O'Bannon, "San Francisco Cable Railway," HAER No. CA-12. Any additional sources will be cited accordingly.

42 O'Bannon, "San Francisco Cable Railway," HAER No. CA-12, 3-43.

43 Ibid.



Figure 16. California Street Railway cable car barn and powerhouse at California and Hyde Streets, 1956 (San Francisco Public Library, Historical Photograph Collection).

4.3 H. K. Stevens, Architect

The extant Cable Car Barn building at 1201 Mason Street is attributed to an architect H. K. Stevens, who reportedly was an in-house architect or engineer at United Railroads.⁴⁴ Preliminary research has not revealed additional information about H. K. Stevens's life or practice. Some records indicate that Stevens may have arrived in San Francisco as early as 1851.⁴⁵ It is also possible that H. K. Stevens was a New York-based engineer that worked for the firm Ford, Bacon & Davis designing railroad infrastructure.⁴⁶ This possibility has merit as United Railroads was primarily owned by east coast investors who may have hired Ford, Bacon & Davis as part of the 1908 reconstruction of the Cable Car Barn and cable car lines.

5. EVALUATIVE FRAMEWORK

5.1 Federal Regulations

National Register of Historic Places

The National Register of Historic Places (National Register) is the nation's inventory of historic places and the national repository of documentation on historic property types, significance, abundance, condition, ownership, needs, and other information. The National Register Criteria for Evaluation define the scope of the National Register of Historic Places; they identify the range of resources and kinds of significance that will qualify properties for listing in the National Register. The Criteria are written broadly to recognize the wide variety of historic properties associated with our prehistory and history. A property eligible for the National Register must be significant at the local, state, or national level under one or more of the following criteria:

44 San Francisco Department of Building and Inspection, "Application for Building Permit – Brick Building," Permit No. 6881 (December 26, 1906).

45 D. Blethen Adams Levy, "Passenger Lists: San Francisco 1800s – SS Tennessee," *The Maritime Heritage Project – San Francisco 1846-1899*, accessed July 1, 2021, <https://www.maritimeheritage.org/passengers/SS-Tennessee-4March1851.html>.

46 New York Railroad Club, *Official Proceedings of the New York Railroad Club* 12 no.1 (November 21, 1901): 126.

- A. Association with events that have made a significant contribution to the broad patterns of our history.
- B. Association with the lives of significant persons in or past.
- C. A property that embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- D. A property that had yielded or may be likely to yield information important in history or prehistory.

For a property to qualify under the National Register, it must retain “historic integrity of those features necessary to convey its significance.”⁴⁷ Integrity is the authenticity of a historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance. Since integrity is based on a property’s significance within a specific historic context, an evaluation of a property’s integrity can only occur after historic significance has been established. To determine if a property retains the physical characteristics corresponding to its historic context, the National Register has identified seven aspects of integrity:

- *Location* is the place where the historic property was constructed or the place where the historic event occurred.
- *Setting* is the physical environment of a historic property.
- *Design* is the combination of elements that create the form, plan, space, structure, and style of a property.
- *Materials* are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- *Workmanship* is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- *Feeling* is a property’s expression of the aesthetic or historic sense of a particular period of time.
- *Association* is the direct link between an important historic event or person and a historic property.

5.2 National Historic Landmarks

The National Historic Landmark program was created to encourage the long-term preservation of the most nationally significant historic properties within the United States. The National Historic Landmark program includes over 2,500 designated properties exceptional national significance. Per 36 Code of Federal Regulations (CFR) Section 65.4(a), a National Historic Landmark is typically older than 50 years and must exhibit exceptional national significance under at least one of six specific national significance criteria while also retaining a high degree of integrity. The Specific Criteria of National Significance for determining National Historic Landmark eligibility include:

- Associations with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of U.S. history and from which an understanding and appreciation of those patterns may be gained.
- Important associations with the lives of persons nationally significant in the history of the U.S.

⁴⁷ National Park Service, “National Register Bulletin: How to Apply the National Register Criteria for Evaluation,” accessed March 13, 2019, http://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_6.htm.

- Represents some great idea or ideal of the American people.
- Embodies the distinguishing characteristics of an architectural type specimen exceptionally valuable for a study of a period, style, or method of construction, or that represents a significant, distinctive, and exceptional entity whose components may lack individual distinction.
- Composed of integral parts of the environment not sufficiently significant by reason of historical associated or artistic merit to warrant individual recognition, but collectively compose an entity of exception historical or artistic significance, or outstandingly commemorate or illustrate a way of life or culture.
- Yields or may be likely to yield information of major scientific importance by revealing new cultures, or by shedding light upon periods of occupation over large areas of the U.S. Such sites are those which have yielded, or which may reasonable be expected to yield, data affecting theories, concepts, and ideas to a major degree.

As with the National Register, certain types of properties must meet exception considerations in order to qualify as National Historic Landmarks. These properties include religious properties, relocated buildings or structures, buildings or structures no longer standing, birthplaces and graves of historical figures, cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the last 50 years. All National Historic Landmark properties are automatically listed in the National Register.

5.2 State Regulations

California Register of Historical Resources

The California Register of Historical Resources (California Register) is the authoritative guide to the State's significant historical and archaeological resources. It serves to identify, evaluate, register, and protect California's historical resources. The California Register program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for historic preservation grant funding; and affords certain protections under the California Environmental Quality Act (CEQA). All resources listed on or formally determined eligible for the National Register are automatically listed on the California Register. In addition, properties designated under municipal or county ordinances are eligible for listing in the California Register.

The California Register criteria are modeled on the National Register criteria. A historical resource must be significant at the local, state, or national level under one or more of the following criteria:

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. It is associated with the lives of persons important to local, California, or national history.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, state or the nation.

Like the National Register, evaluation for eligibility to the California Register requires an establishment of historic significance before integrity is considered. California uses the same seven aspects of integrity to determine if a property retains the physical characteristics corresponding to its historic significance. However, the integrity threshold is slightly lower at the state level than at the federal level. As a result, some resources that are historically significant but do not meet National Register integrity standards may be eligible for listing in the California Register.

5.3 Local Regulations

San Francisco Landmark Designation

San Francisco Landmarks are designated under Article 10 of the San Francisco Planning Code. The designation process includes a review of the Landmark Designation Application by the Planning Department and the Historic Preservation Commission. Final approval is made by the San Francisco Board of Supervisors. The following section on the eligibility requirements and designation process is excerpted from the Application for Historic Landmark Designation.⁴⁸

Most San Francisco landmarks are buildings. However, a landmark can also be a structure, site, feature or area of special historical, architectural, or aesthetic interest. Collections of properties can also be designated as landmark districts. Landmarks can be significant for a variety of reasons. The criteria are based on those used by the National Register and include:

- Properties significant for their association with historic events, including the city's social and cultural history
- Properties significant for their association with a person or group important to the history of the city, state or country
- Properties significant for their architecture or design
- Properties that are valued as visual landmarks, or that have special character or meaning to the city and its residents
- Collections of properties or features that are linked by history, plan, aesthetics or physical development.

6. SUMMARY OF SIGNIFICANCE

6.1 Historical Significance

Based on preliminary research and review of the existing documentation about the subject property, ARG finds the Cable Car Barn continues to qualify as a historical resource under CEQA. It is currently a contributor to the San Francisco Cable Car System National Historic Landmark, which was designated in 1964. In turn, the San Francisco Cable Car System was listed in the National Register in 1966 and updated in 1978, which provided further clarification about the Cable Car Barn's contributing status to the system. In turn, the San Francisco Cable Car System was automatically listed in the California Register. In addition to these designations of the San Francisco Cable Car System, the Cable Car Barn was individually designated as a San Francisco Landmark in 1971.

The Cable Car Barn was primarily constructed in 1908 following the 1906 earthquake and fires, which destroyed much of the original 1888 building built by the Ferries & Cliff House Railroad Company. Although the Cable Car Barn was not the first cable car barn and powerhouse associated with a cable car line in San Francisco, the extant building reflects the reconstruction period following 1906, as well as the continued operation of the San Francisco cable cars through the early twentieth century. Research indicates that it has direct associations with the development and operations of the San Francisco cable cars as the only remaining cable car barn and powerhouse. Similarly, the Cable Car Barn at 1201 Mason Street is also significant as the only surviving example of the cable car barn and powerhouse property type in San Francisco.

48 San Francisco Planning Department, "Application for Historic Landmark Designation," n.d., accessed August 8, 2021, http://forms.sfplanning.org/Historic_Landmark_Designation_Application.pdf.

6.2 Period of Significance

The period of significance for the Cable Car Barn spans from 1908 to 1944. This corresponds with the completion of the existing building envelope following the damage of the 1906 earthquake and fires to the previous building at the site and extends through the period when it was owned and operated by the Market Street Railway Company through 1944. When it was purchased by Muni in 1944, the cable car system had largely been replaced by the public bus system and transitioned to primarily function as heritage tourism infrastructure.

6.3 Integrity Assessment

The designation of the Cable Car Barn at the national, state, and local level occurred in the 1960s and 1970s and predates major alterations to the building that occurred during a renovation campaign conducted from 1982 to 1984. Despite these alterations, the Cable Car Barn retains sufficient integrity to convey its historically significant associations with the development and operation of the San Francisco cable car system and as a rare example of the cable car barn and powerhouse property type.

The subject property largely retains integrity given its ongoing use as a cable car barn, which has preserved many of the original exterior features and interior spatial organization. The building remains in its original location within the irregular parcel that fronts Mason, Washington, and Jackson streets, retaining integrity of location. The property also remains within the mid-rise urban setting along Washington and Mason streets with cable car tracks and infrastructure extending out from the building along the established routes; thus, it retains integrity of setting.

The brick masonry building retains the original 1908 façades along Washington and Mason streets, as well as sections visible from Jackson Street and Marcy Place. This includes brick masonry detailing, original fenestration patterns with arched, regularly repeating openings, as well as remaining portion of the original 1888 smokestack, which was reconfigured to its current height during the 1908 reconstruction. Some alterations, such as the conversion of windows to building entrances, addition of entrances, and the replacement of the original windows, were compatible with the original design, features, and material of the building and do not reduce the overall integrity of design, materials, workmanship, feeling, or association.

The interior alterations and additions, which largely date to 1982 to 1984, have removed much of the preexisting materials from the Cable Car Barn. Although the interiors were completely altered outside the recommended period of significance between 1908-1944, many of the contributing features associated with the San Francisco Cable Car System—winding equipment, tension runs, and sheaves and cable conduits in the basement vaults—have been replaced to match the existing in overall appearance and placement.

6.4 Character-Defining Features

A character-defining feature is an aspect of a building or structure's design, construction, or detail that is representative of its function, type, or architectural style. Generally, character-defining features include specific building systems, architectural ornament, construction details, massing, materials, craftsmanship, site characteristics, and landscaping within the period of significance. In order for an important historic property to retain its significance, its character-defining features must be retained to the greatest extent possible.

Based upon the review of the historical significance and the existing condition, the character-defining features of the Cable Car Barn property at 1201 Mason Street are outlined below. Any other elements or spaces not specifically referred to here and/or constructed outside of the period of significance of 1908-1944 are considered to be non-contributors.

Site

- Mid-rise urban setting along Mason, Washington, and Jackson streets;
- Connection with the cable car tracks and cable system with circulation patterns extending from Washington and Jackson streets; and
- Integration into the hillside that provides cable cars access to the maintenance facilities on the second floor from the slopes of Washington and Jackson streets.

Exterior

- Two-story height and squared massing of the 1908 envelope;
- 1908 brick masonry façades along Washington (south), Mason (east), and Marcy Place (west);
- Brick masonry smokestack with chamfered base dating to 1888, with the height reduced in 1908;
- Predominantly flat roof profile from the parapet wall with a noted gable peak at the northeast bay on Mason Street;
- Red brick laid in running bond pattern with circular and pennant inlay detailing along the parapet course;
- Paired brick masonry string course separating the first and second floors; and
- Regular and rhythmic spacing of segmental and rounded arch fenestration openings along the first and second floors.

Interior

- Diagonal spatial organization of the winding equipment and tension run within the central volume of the ground floor; and
- Sheave and cable equipment located in the basement vault spaces of the building.

7. CONCLUSION

The Cable Car Barn at 1201 Mason street retains integrity and continues to qualify as a historical resource under CEQA. It is a contributor to the San Francisco Cable Car System National Historic Landmark, which is also listed in the National Register and California Registers. The subject building is also individually designated a San Francisco Landmark. Expanded research has demonstrated that the Cable Car Barn has significant associations for its development and operation of the San Francisco cable cars and as a rare example of the cable car barn and powerhouse property type. The period of significance for the property of 1908 to 1944, which coincides with the completion of the building in 1908 and its role in the operations of the cable cars as public transport prior to being transferred to Muni.

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Cable Car Barn, San Francisco, CA
Historic Resource Evaluation

Appendix A: Existing Conditions Photographs



Architectural
Resources Group



South and east façades of the Cable Car Barn, view northwest from the corner of Mason and Washington streets (ARG, April 2021).



East façade of the Cable Car Barn, view southwest from Mason Street (ARG, April 2021).



Primary entrance to the Cable Car Museum at the east façade of the Cable Car Barn (ARG, April 2021).



Second floor of the southern portion at the east façade, view west from Mason Street (ARG, April 2021).



Center portion of the east façade, view west from Mason Street (ARG, April 2021).



Maintenance vehicle entrance to the Cable Car Barn at the east façade, view west from Mason Street (ARG, April 2021).



Visible portion of the north façade with the 1984 third-story addition visible, view south along Marcy Place from Jackson Street (ARG, April 2021).



1908 brick masonry at the lower floors of the north façade, view south from Marcy Place (ARG, April 2021).



Detail of the upper floors of the north façade, view west from Marcy Place (ARG, April 2021).



Jackson Street cable car entrance (dating to 1984) at the north façade, view south from Jackson Street (ARG, April 2021).



South façade of the Cable Car Barn with the 1888 smokestack, 1908 brick masonry façade, and 1984 cable car entrance and third floor, view east from Washington Street (ARG, April 2021).



Eastern portion of the south façade with the 1908 brick masonry façade and 1888 smokestack, view northwest from Washington Street (ARG, April 2021).



East portion of the south façade with the 1908 brick masonry envelope and 1984 secondary museum entrance (bottom left), view northeast from Washington Street (ARG, April 2021).



Washington Street entrance to the Cable Car Barn with the 1908 brick masonry envelope and 1984 secondary museum entrance (bottom right), view northeast from Washington Street (ARG, April 2021).



Detail of the 1888 smokestack, view from Washington Street (ARG, April 2021).



Washington Street cable car entrance from 1984 at the south façade, view northwest from Washington Street (ARG, April 2021).



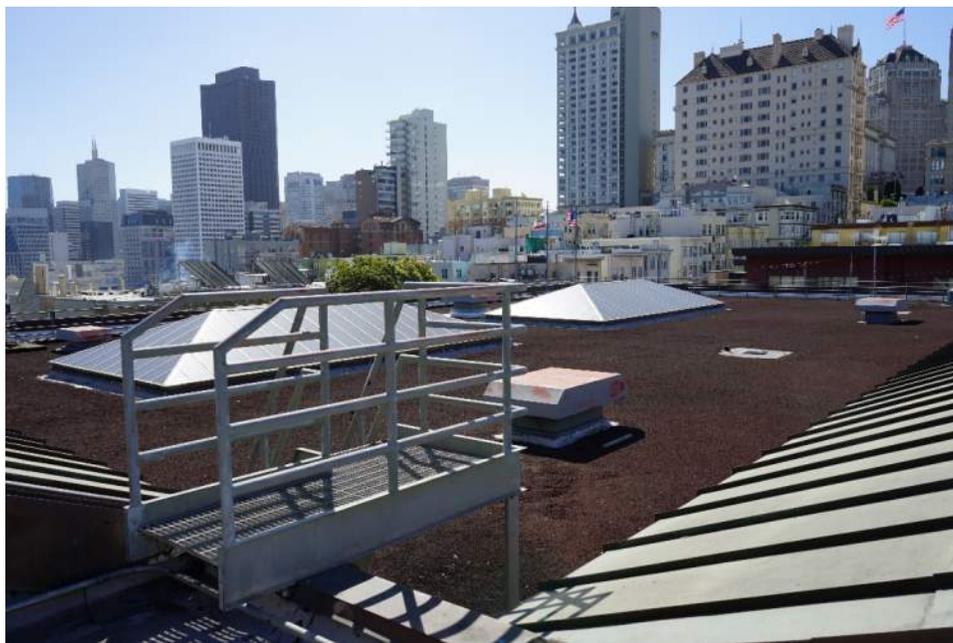
Detail of the signage reading "Ferries and Cliff House Railway Co. 1887" at the south façade, view north from Washington Street (ARG, April 2021).



Secondary Cable Car museum entrance at the south façade, view west (ARG, April 2021).



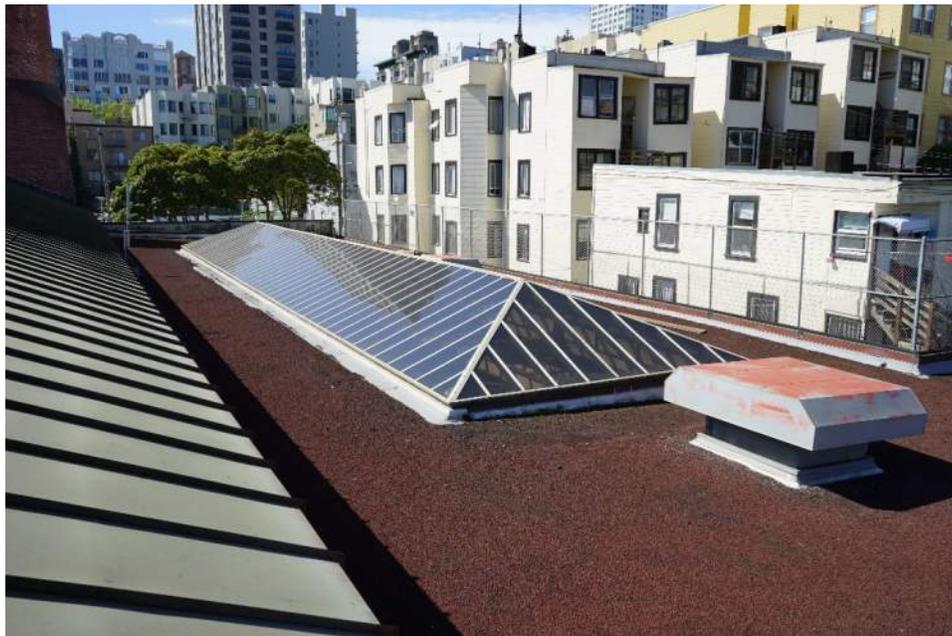
Detail of the second story at the eastern portion of the south façade, view north from Washington Street (ARG, April 2021).



East portion of the roof with the 1984 third floor skylights, view southeast (ARG, April 2021).



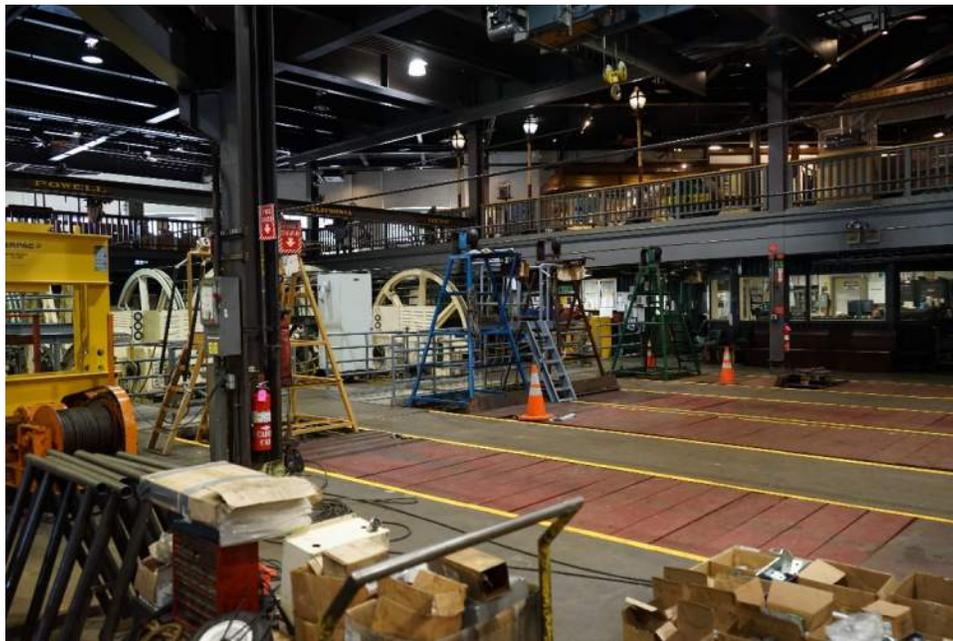
Detail of the 1888 smokestack, view south from the roof (ARG, April 2021).



Western portion of the roof with the 1984 third floor skylights, view southeast (ARG, April 2021).



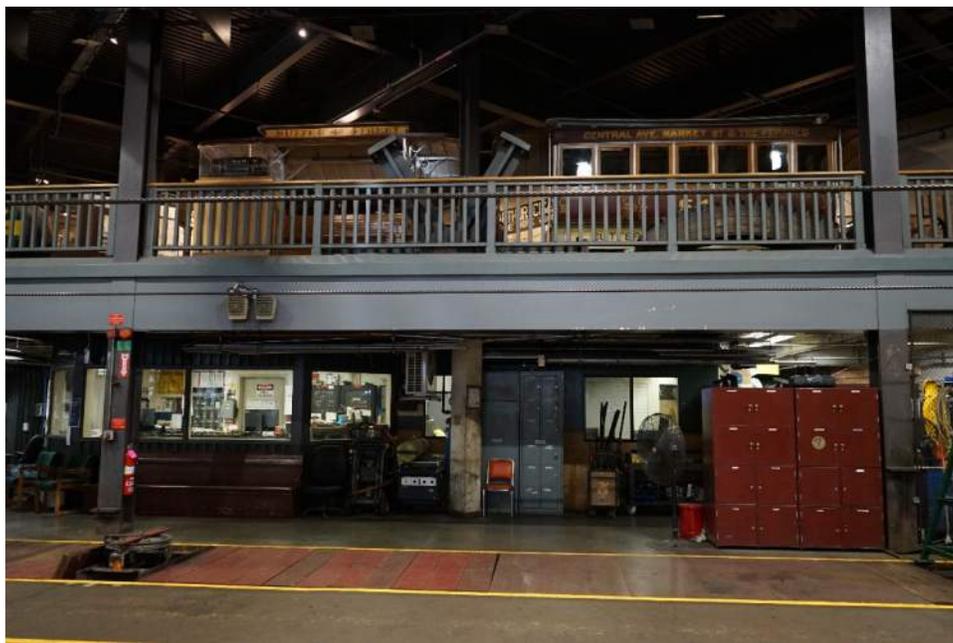
Cable Car Barn interior, museum mezzanine overlooking the cable system and tension run at the first floor (ARG, April 2021).



Cable Car Barn interior, cable turning equipment, tension run, and museum mezzanine at the first floor (ARG, April 2021).



Cable Car Barn interior, cable turning equipment at the first floor and foyer to the cable car museum and mezzanine in the background (ARG, April 2021).



Cable Car Barn interior, cable car system operations rooms at the first floor with the cable car museum mezzanine above (ARG, April 2021).



Cable Car Barn interior, view of the 1984 secondary cable car museum entrance at the south façade, view east towards the intersection of Mason and Washington streets (ARG, April 2021).



Cable Car Barn interior, machine shop and maintenance space at the first floor (ARG, April 2021).



Cable Car Barn interior, below ground cable equipment and sheaves (ARG, April 2021).



Cable Car Barn interior, interior elevation of the second floor windows (ARG, April 2021).



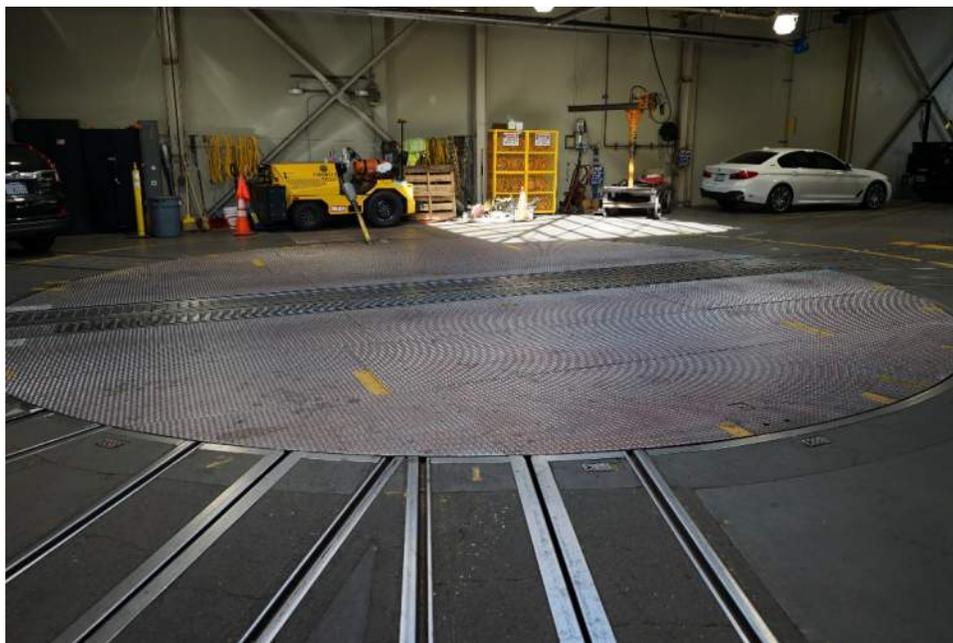
Cable Car Barn interior, cable car maintenance yard, view south towards Washington Street from the turntable (ARG, April 2021).



Cable Car Barn interior, cable car maintenance bays at the second floor (ARG, April 2021).



Cable Car Barn interior, cable car maintenance bays with open maintenance pits at the second floor (ARG, April 2021).



Cable Car Barn interior, 1984 cable car turntable at the second floor (ARG, April 2021).



Cable Car Barn interior, typical office space at the third-floor penthouse (ARG, April 2021).

Cable Car Barn, San Francisco, CA
Historic Resource Evaluation

Appendix B: Existing Documentation



Architectural
Resources Group

SAN FRANCISCO CABLE CARS

L58

JAN 28 1964

Dear Senator Kichel:

It is a pleasure to inform you that in your State the historic site listed on the enclosure has been found to possess exceptional value in commemorating and illustrating the history of the United States.

This site has been evaluated in the National Survey of Historic Sites and Buildings, and by the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments, and approved by me pursuant to the Historic Sites Act of August 21, 1935.

As explained in the enclosures this historic property is eligible to receive, from the Department of the Interior, a certificate and bronze plaque designating it as a Registered National Historic Landmark. The Director of the National Park Service will notify the owner and provide him with the proper application forms.

In recognizing the historical importance of this site, we wish to commend the owner for the care and preservation of this property.

Sincerely yours,

(sgd) Stewart L. Udall

Secretary of the Interior

Hon. Thomas H. Kichel
United States Senate
Washington, D. C.

IDENTICAL LETTER SENT TO SENATORS
AND CONGRESSMEN ON ATTACHED LIST

Enclosures

cc:
LM (2)
Secretary's Reading File Copy
Respective Regional Directors in Regions concerned
Mr. Price
Mr. Thompson
Mr. Stratton
Miss Thomas
Mr. Littleton
NPS Office copy
LHP Comeback Copy

JOLittletonmg 12-6-63

"Fairview," home of William Jennings Bryan at Lincoln, Nebraska, commemorating one of the major leaders of the late 19th and early 20th century who had a great impact on the political history of that time; Robert M. LaFollette Home, Maple Bluff, Wisconsin, memorializing a man who believed with his heart and soul that democracy had to rest on the people, not on special interest groups or cliques; U. S. S. Olympia, Philadelphia, Pennsylvania, one of the most historic naval vessels in America; and Temple Square, Salt Lake City, Utah, which captured the essence of the Mormon achievement in building a kingdom on the Utah desert.

Travel and Communication examples include: The First Telephone Exchange, New Haven, Connecticut, the building in which the world's first telephone exchange was established, which began operations on January 28, 1878; Jarrett Manor, "Travelers Rest," Toccoa, Georgia, which served as a well-known stagecoach inn, tavern, and post office throughout the 19th century; Illinois and Michigan Canal (Locks and Towpath), Channahon, Illinois, which propelled Chicago into a position of supremacy in the Middle West; Sandy Hook Light, Sandy Hook, New Jersey, the oldest standing light tower in the United States; and Samuel F. B. Morse Home, "Locust Grove," New York, where Morse first successfully demonstrated his telegraph in 1844.

Archeological Landmarks are Angel Mounds, Indiana, a site which has produced more than 2,000,000 catalogued artifacts--the most outstanding being an effigy of a seated man which was carved from fluorspar; Pinson Mounds, Tennessee, a site of major importance, one of the few large temple mound sites with an earthworks; and Piilanihale Heiau, Hawaii, a structure attributed to Piilani, of the Maui line of great chiefs of the 16th century.

Brief descriptions are attached of the 48 sites.

X X X

Political and Military Affairs After 1865

In the study of "Political and Military Affairs After 1865," 16 sites were listed by the Advisory Board. They are as follows:

1. Pearl Harbor Naval Base, Hawaii. Pearl Harbor was one of the keys to the development of American naval power in the Pacific, and is still today an active, major naval base. The U. S. S. Arizona Memorial, where over 1,100 men were entombed in the battleship sunk by the Japanese in their surprise attack of December 7, 1941, is a point of major visitor interest.
2. Benjamin Harrison Home, Indiana. President Harrison's house was constructed in 1874-75 and remained his home, when he was not in Washington, D. C., until his death in 1901. It is well maintained and contains many furnishings that formerly belonged to Harrison.
3. James G. Blaine Home, "Blaine House," Maine. The Blaine House was built in the early 19th century, and purchased by Blaine in 1862. Now the governor's mansion, it was restored and redecorated in 1962, and the study meticulously restored to its appearance when Blaine occupied it.
4. William Jennings Bryan Home, "Fairview," Nebraska. Bryan moved in 1887 to Lincoln, Nebraska, and soon launched his significant political career, serving in Congress, three times as Democratic candidate for President, and as Secretary of State from 1913-1915. The first floor has been restored as a historic house, containing original furnishings contributed by the family.
5. Thomas Nast Home, "Villa Fontana," New Jersey. The famous cartoonist's well-preserved home is not open to the public. He occupied it from 1873 to 1902, a handsome three-story, clapboard building with mansard roof which was built about 1860.
6. William H. Seward House, New York. The Seward House was built in 1816-17 as the home of Mrs. Seward's parents. Mr. and Mrs. Seward made it their home after their marriage in 1824, to the time of his death in 1872. It is in excellent condition, well maintained, under foundation ownership.
7. James A. Garfield Home, "Lawnfield," Ohio. Garfield purchased Lawnfield in 1876, a 152-acre farm with 1½-story house built in 1832 and outbuildings. He enlarged and remodeled it extensively, and ran his successful presidential election campaign of 1880 from this house, now restored and owned by the Lake County Historical Society.
8. Rutherford B. Hayes Home, "Spiegel Grove," Ohio. The Hayes house, built between 1859 and 1863, and later enlarged, is located on the grounds of the Hayes State Memorial. The Memorial contains the graves of the 19th president and Mrs. Hayes, and also a museum and library building preserving their papers and other possessions.

9. William Howard Taft Home, Ohio. Taft was born and spent his first 25, formative years in this house, from which he emerged to pursue his remarkable career in law and public administration. The house is still basically sound, but somewhat altered and in only fair condition.
10. U. S. S. "Olympia," Pennsylvania. This cruiser, built in 1888, is the oldest steel-hulled American naval ship afloat. Excellently restored by a patriotic association, it commemorates the triumph of May 1, 1898, when it was Commodore George Dewey's flagship in the Battle of Manila Bay.
11. U.S. Naval War College, Rhode Island. Alfred Thayer Mahan became president of the Naval War College in 1886, one year after the first students were received. Under him it developed in spite of vigorous opposition into an institution of inestimable value. The original college building, built in 1819, is now the Newport Naval Base commander's residence.
12. Temple Square, Utah. The walled Temple Square symbolizes achievement in the Utah desert, as well as Mormon religious and cultural individuality. The three historic structures in Temple Square are the Temple, built between 1853 and 1893, the Tabernacle, an architectural and engineering marvel built between 1862 and 1867, and the Assembly Hall, completed in 1882.
13. Brigham Young House, "Lion House," Utah. This two-story adobe building, plastered, with small-paned windows, green shutters, tall chimneys, and 20 steep-roofed gables, was built under Brigham Young's direction in 1856. He and his large family resided here until his death in 1877. It is now a public center and historic house museum.
14. Robert M. LaFollette Home, Wisconsin. Three acres remain in family ownership of the 60-acre farm LaFollette purchased in 1905. The house, originally built about 1860, remains in a condition generally similar to that of the time of his death in 1925.
15. George Hunt Pendleton Home, Ohio. Pendleton, the "patron saint" of the U. S. Civil Service, lived in a brick, three-story home on a splendid site overlooking Cincinnati. The structure is not in a good state of preservation.
16. John Sherman Birthplace, Ohio. Born here in 1823, younger brother of William Tecumseh Sherman who was also born here, John Sherman enjoyed a remarkable career in U. S. House and Senate, and as Secretary of the Treasury and, later, of State. The house is open to the public.

Travel and Communication

In the study of "Travel and Communication," 25 sites were listed by the Advisory Board. They are as follows:

1. The First Telephone Exchange, Connecticut. The world's first telephone exchange (commercial switchboard) began operating on January 28, 1878, in a room of the Metropolitan Building, New Haven.
2. Jarrett Manor, "Travelers Rest," Georgia. Built in 1784 as a frontier home and fort, this structure near Toccoa served as a stagecoach inn, tavern, and post office throughout the 19th century. It is an excellent example of an early inn in a rural, frontier setting.
3. Illinois and Michigan Canal (Locks and Towpath at Channahon), Illinois. This canal propelled Chicago into a position of supremacy in the Middle West. Built from 1836-1848, it linked Chicago to the Mississippi River, completing a continuous waterway from New York to the Mississippi. It has not been used commercially since 1933, but the locks have been restored and the old towpath may be followed.
4. Castleman Bridge, National Road, Maryland. This well-built stone bridge over the Little Youghiogeny River was used from 1813 to 1933. It included the largest stone arch in the United States when erected, and is still a magnificent example of the bridge-building art of the early 19th century.
5. Thomas Viaduct, Baltimore and Ohio Railroad, Maryland. This majestic solidly-built bridge, still used today, is the world's oldest multiple stone-arch railroad bridge. Completed in 1835, it was designed by Benjamin H. Latrobe, civil engineer, son of the famous architect of the same name.
6. Boston Light, Massachusetts. Little Brewster Island is the site of the first lighthouse in North America, erected in 1716 and destroyed in 1776. The present structure, built in 1783 on the same site, is the second oldest light tower in the United States, and is still in use.
7. Boston Subway, Massachusetts. Boston's subway (built 1895-98) was the first in North America and the fifth such system in the world. New York and other cities later followed Boston's example, making the subway a major means of urban transportation.
8. Eads Bridge, Missouri. James Buchanan Eads designed and built, 1867-1874, the world's first steel-truss bridge, spanning the Mississippi River at St. Louis. It was one of the major engineering achievements of its time, and opened up a new era in bridge construction.
9. Sandy Hook Light, New Jersey. This is the oldest standing light tower in the United States. It was erected in 1764 and is still in use.

10. Old Blenheim Bridge, New York. This magnificent example of the lost American art of building wooden covered bridges was erected in 1835 by Nicholas M. Powers, a leading covered-bridge builder of New England.
11. Samuel F. B. Morse Home, "Locust Grove," New York. Morse purchased Locust Grove estate in 1847 and returned to it summer after summer until his death in 1871. The original part of the house was built in 1830, but Morse added onto it a great deal, including the four-story tower on the west side.
12. Brooklyn Bridge, New York. This was the world's first great steel suspension bridge, both a thing of beauty and a technical masterpiece which opened a new era in bridge construction. It was designed and constructed, 1869-1883, by John A. and Washington A. Roebling, father and son.
13. Salem Tavern, North Carolina. Salem Tavern is a splendid example of an 18th-century "ordinary" in the South. Erected in 1784, it enjoyed a widespread reputation for hospitality and comfort.
14. S-Bridge (Old Washington Bridge), National Road, Ohio. This stone bridge, constructed in 1828, is a splendid reminder of the great National Road which was built across Ohio between 1825 and 1837. The bridge is still in excellent condition, along U. S. Highway 40 west of Old Washington.
15. Miami and Erie Canal (Deep Cut), Ohio. The "Deep Cut" of the Miami and Erie Canal, near Spencerville, is a striking remain of Ohio's great antebellum canal system, which contributed notably to Ohio's swift rise to a leading position in the nation by 1860. It was originally 6,600 feet long and 5 to 52 feet deep. It is identified today by a State roadside park and marker.
16. William Aiken House and Associated Railroad Structures, South Carolina. Aiken was first president (1828-1831) of the South Carolina Canal and Railroad Company, and builder (1830-33) of the pioneer Charleston and Hamburg Railroad, 136 miles in length. The handsome, stuccoed, brick house was built between 1807 and 1811 and is now Division Headquarters of the Southern Railway Company. Other interesting antebellum railroad buildings are located nearby.
17. Lakeboat, The Ticonderoga, Vermont. The Ticonderoga carried passengers on Lake Champlain from 1906, when it was built, until 1953. This side-paddlewheel lakeboat is the only extant and basically unchanged vessel of its kind in the United States.
18. Cape Henry Lighthouse, Virginia. This was the first lighthouse to be erected by the Federal Government, and was used as a light tower from its completion in 1792 until 1881. It is the third oldest standing structure of this type in the United States.

19. Gadsby's Tavern, Virginia. Gadsby's was an important center of Virginia life in the 18th and early 19th centuries, for both travelers and residents of the Alexandria area. It consists of two adjoining taverns erected in 1752 and 1792.

20. Rising Sun Tavern, Virginia. This tavern was a favorite stopping and meeting place of Virginia Revolutionary War patriots--social center, post office, and stagecoach stop for Fredericksburg, traditionally built about 1760.

21. Sheridan Inn, Wyoming. This hotel opened in 1893 and rated for years as the finest hotel between Chicago and San Francisco. It was also the social center of the region.

22. Robert Fulton Birthplace, Pennsylvania. Robert Fulton was born in 1765 in this 2½-story stone structure 8 miles south of Quarryville. Since that time the building has been altered notably.

23. Toll House, National Road, Pennsylvania. This brick structure, recently restored, is a reminder of the transfer from Federal to State ownership of the National Road, lifeline of the early West, in 1831. The building was constructed in 1835 and is on U. S. 40, just west of Uniontown.

24. East Broad Top Railroad, Pennsylvania. The E. B. T. Railroad was primarily a coal-carrying line, operating over 30 miles of narrow gauge track between Mount Union and Robertsdale from 1872 to 1953. The old station at Orbinsonia is now preserved along with 3½ miles of track over which passenger trains are run for visitors.

25. San Francisco Cable Cars, California. This method of urban transportation--cars moved by gripping moving underground cables--was pioneered in 1873 in San Francisco, to which it was especially well suited because of steep hills in the downtown area. At the maximum, 8 companies operated 112 miles of track in San Francisco, and 5 other American cities had similar lines. About 10 miles are still in operation, all in San Francisco.

Indian Villages and Communities

In the study of "Indian Villages and Communities," two sites were listed by the Advisory Board. They are as follows:

1. Angel Mounds, Indiana. Deriving its name from former owners of the property, Angel Mounds is one of the largest and most impressive "Mississippian" temple mound sites, covering over 100 acres. Excavation over a long period has uncovered numerous rectangular houses, temples, a town square, a palisade augmented with projecting bastions at 120-foot intervals, and over 2,000,000 catalogued artifacts relating to the period of occupancy, about A. D. 1400-1600.

2. Pinson Mounds, Tennessee. This site includes probably more than 30 mounds, thousands of yards of earthworks and other features. It is believed to cover about 1,000 acres, and is of major importance as one of the few large temple mound sites with an earthworks. Furthermore, it was occupied during several major archeological periods, from Late Archaic to Woodland and Mississippian periods.

Westward Expansion

In the study of "Westward Expansion," subtheme: "Military and Indian Affairs" one site was listed by the Advisory Board:

1. Fort Richardson, Texas. Fort Richardson was one of the most important military posts on the southwest frontier during the period of Comanche and Kiowa deprivations. It obstructed the movement of Indian raiders against the Texas frontier and down across the Rio Grande into Mexico. Fort Richardson and its troops played key roles in the Jacksboro case of 1871 and the Red River War of 1874, which brought peace to the Texas frontier. The site is owned by the State of Texas and administered by the Jack County Historical Society.

Architecture

In the study of "Architecture," one site was listed by the Advisory Board:

1. The Robie House, Illinois. Frank Lloyd Wright designed and built this residence for Frederick Carleton Robie in 1907-09. Incorporating many forms which have become identified with modern styles, the Robie house has won international acclaim as a turning point in architectural development. Now part of the University of Chicago campus, it is the object of a nation-wide fund-raising campaign for its restoration and preservation.

Conservation of Natural Resources

In the study of "Conservation of Natural Resources" one site was listed by the Advisory Board:

1. Stephen Tyng Mather Homestead, Connecticut. This residence is notable as the home of the man who, more than any single individual, created the National Park System and made it the organization that now serves the country so capably. It was built by Mather's great-grandfather in 1778, and after undergoing various modifications through the years now remains substantially the same as it was when Mather died in 1930.

Commerce and Industry

In the study of "Commerce and Industry," one site was recommended by the Advisory Board:

1. Saugus Iron Works, Massachusetts. The First Iron Works Association, Inc., owns and operates this careful reconstruction of the original iron works which operated intermittently at Saugus between 1648 and 1670. Consisting of a blast furnace, casting house, forge, and rolling and slitting mill, it was an important business enterprise in American history.

Hawaii Aboriginal Culture

In the study of "Hawaii Aboriginal Culture" one site was recommended by the Advisory Board:

1. Piilanihale Heiau, Hawaii. This is the largest heiau, or temple, in the Hawaiian Islands, about 340 by 425 feet, built probably in the 16th century. Privately owned, located on the east coast of Maui, it is well preserved because of heavy vegetation but also difficult to reach for the same reason.

X X X

JAN 29 1964

San Francisco Cable Cars, California

Honorable George Christopher
Mayor of the City of San Francisco
San Francisco, California

Dear Mayor Christopher:

It is a pleasure to inform you that the property described in the enclosure has been found to possess exceptional value in commemorating and illustrating the history of the United States.

It has been studied by the National Survey of Historic Sites and Buildings; evaluated by the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments; and approved by the Secretary of the Interior pursuant to the Historic Sites Act of August 21, 1935.

As explained in the enclosed folder, this site is eligible for Registered National Historic Landmark status. A certificate and bronze marker attesting to this status may be obtained upon your application and your agreement to adhere to simple preservation practices. Should you wish to apply for the certificate and marker, copies of the application form are enclosed. These should be completed in triplicate for each site to be certified. Two copies for each site should be returned to the National Park Service. You may retain the third copy of each application as part of your own records.

At the present time, the work of the National Survey of Historic Sites and Buildings is incomplete. From time to time, announcements will be made of additional sites eligible for landmark certification.

The Registry of National Historic Landmarks is designed to encourage the preservation of the Nation's historical and archeological heritage. We will be happy to have you participate in the Program.

Sincerely yours,

A. CLARK STRATTON

Acting Director

Enclosures

cc:
Regional Director, Western
Mr. Littleton

JOLittleton:mg 12-20-63

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL SURVEY OF HISTORIC SITES AND BUILDINGS

| | |
|---|--|
| 1. STATE California | 2. THEME(S). IF ARCHEOLOGICAL SITE, WRITE "ARCH" BEFORE THEME NO. XVIII - Travel and Communication |
| 3. NAME(S) OF SITE San Francisco Cable Car Railway | 4. APPROX. ACREAGE |
| 5. EXACT LOCATION (<i>County, township, roads, etc. If difficult to find, sketch on Supplementary Sheet</i>) Powell and Market Streets, San Francisco | |
| 6. NAME AND ADDRESS OF PRESENT OWNER (<i>Also administrator if different from owner</i>) City of San Francisco | |
| 7. IMPORTANCE AND DESCRIPTION (<i>Describe briefly what makes site important and what remains are extant</i>) | |

Andrew S. Hallidee, an English builder of aerial cables for use in Western mines, invented an arrangement whereby heavy cables could be laid underground to draw cars up the steep hills of San Francisco. The first car thus equipped ran from Kearny Street via Clay Street over Nob Hill to Leavenworth in August 1873, and soon thereafter such lines were in general use in the city.

Cable lines were built in most major American cities in the 1880's; the largest such system was that of Chicago, where three companies owned 82 miles of track and 710 grip cars. By 1893, however, the cable car, except on steep grades, was generally being replaced by the electric street car.

About 10 miles of the San Francisco cable car system, with the grip cars, have been retained in use and serve as an interesting tourist attraction.

| | |
|---|--|
| 8. BIBLIOGRAPHICAL REFERENCES (<i>Give best sources; give location of manuscripts and rare works</i>) | George W. Hilton and John F. Due, <u>The Electric Interurban Railways in America</u> (Stanford, 1960), 5; J. Bucknell Smith, <u>A Treatise Upon Cable or Rope Traction as Applied to the Working of Street and Other Railways</u> (London, 1892); Mildred B. Hoover, Hero E. Rensch, and Ethel G. Rensch, revised by Ruth Teiser, <u>Historic Spots in California</u> (Stanford, 1958), 299. |
| 9. REPORTS AND STUDIES (<i>Mention best reports and studies, as, NPS study, HABS, etc.</i>) | |

| | | | |
|---|--|--|--|
| 10. PHOTOGRAPHS* ATTACHED: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> | 11. CONDITION Good | 12. PRESENT USE (<i>Museum, farm, etc.</i>) Transportation | 13. DATE OF VISIT June 8, 1961 |
| 14. NAME OF RECORDER (<i>Signature</i>) Charles W. Snell <i>Charles W. Snell</i> | 15. TITLE Reg. Chief, Branch Hist. Sites | 16. DATE Nov. 29, 1962 | |

* DRY MOUNT ON AN 8 X 10 1/4 SHEET OF FAIRLY HEAVY PAPER. IDENTIFY BY VIEW AND NAME OF THE SITE, DATE OF PHOTOGRAPH, AND NAME OF PHOTOGRAPHER. GIVE LOCATION OF NEGATIVE. IF ATTACHED, ENCLOSE IN PROPER NEGATIVE ENVELOPES.

(IF ADDITIONAL SPACE IS NEEDED USE SUPPLEMENTARY SHEET, 10-317a, AND REFER TO ITEM NUMBER)



Cable Car

Powell and Market Streets
San Francisco, California

June 8, 1961

Charles W. Snell
Neg. 2415-Western Region

REGISTRY OF NATIONAL HISTORIC LANDMARKS

BIENNIAL VISIT REPORT

San Francisco Cable Car System

Date: March 17, 1970

Visited by: G. C. Murray

1. Location: City of San Francisco, Cable Cars on three designated routes, plus Cable Car Barn at Washington and Mason Streets, San Francisco

2. Theme: XVIII - Travel and Communication

3. Owner
 - a. When designated City of San Francisco
 - b. Present: Same
 New

4. Use:
 - a. When designated Municipal transit system; Maintenance of cable car system.
 - b. Present: Same
 Changed as follows: Cable Car Barn is being restored and developed as visitor information facility

REGISTRY OF NATIONAL HISTORIC LANDMARKS

BIENNIAL VISIT REPORT

San Francisco Cable Car System

5. Plaque and Certificate: Location and condition

- a. Plaque (2 Plaques) 1. Wall of visitors' viewing platform, Cable Car Barn, Washington & Mason Sts. S.F.; 2. Hyde St. Cable Car
b. Certificate Terminal, S. F.; both excellent
didn't see

6. Physical condition

- a. When designated Excellent
b. Present: (X) Excellent; () Good; () Fair; () Poor

Comments:

REGISTRY OF NATIONAL HISTORIC LANDMARKS

BIENNIAL VISIT REPORT

San Francisco Cable Car System

7. Special Problems:

Safety: Both operators and passengers almost totally disregard passenger safety.

Attitudes: As with other municipal transportation, operator attitudes vary from Beligerent, rude, and hostile to friendly, courteous and helpful. Although residents accept this as a fact of life, visitors are offended and puzzled by rudeness from what is considered a prime tourist attraction. Because the Cable Car's reason for continued existence is their unusual historic interest, it is regrettable that operator attitudes do not reflect a little pride in their role in recreating the City's history.

8 Suggestions Offered: None concerning the above special problems.

The National Park Service has been requested by the San Francisco Public Utilities Commission to provide interpretive planning assistance in the development of the Car Barn visitor information facility. Contacted by: James Leonard, Assistant to General Manager James K. Carr, Public Utilities Commission, City Hall, S. F.

Heritage Conservation and Recreation Service
Department of the Interior

NATIONAL HISTORIC LANDMARK STATUS REPORT: 1978

General Background

1. Official Landmark name: San Francisco Cable Car System
Address: Cable Car Barn at Washington & Mason Streets, and cable cars on three designated routes (Powell-Mason, Powell-Hyde & California Street), City of San Francisco, CA
2. Name, address, phone number of the Landmark owner: City & County of San Francisco, Public Utilities Commission, Municipal Railway, Cable Car Division. Superintendent: Oscar Norman, Washington & Mason Streets, San Francisco, CA 415-558-3382
3. Name, title, address, and phone number of person responsible for the management of the Landmark: (If same as person in number 2, write 'same')
same
4. Name, title, address and phone number of additional person(s) contacted about this Landmark: Rino Bei, Program Manager, MUNI Transit Improvement, 415-558-2801 and Mrs. Hans Klussman, San Francisco Citizen & Cable Car Supporter, 415-421-2608
5. Name, region and phone number of HCRS official preparing report:
Julie Nagle, Pacific Southwest Regional Office, FTS: 556-8313
6. Date of this report:

7/25/78

II. Condition and Maintenance of Buildings, Sites and Historic Districts
(If Landmark is visited, provide photographs (or slides) of serious problems or possible threats)

1. Architectural or Engineering Features

- a. What is the general physical condition? X excellent ___ good
___ needs repairs (explain)
- b. Are there any obvious structural problems or water related problems?
X no ___ yes (describe)
- c. Are there planned future building alterations or new construction?
___ no X yes (explain) see comments (V)
- d. Are there historic interior furnishings present? X yes ___ no
Are they well cared for? X yes ___ no (explain)
Will they be retained? X yes ___ no (explain)
- e. Is there historic machinery or equipment present? X yes ___ no
Is it well cared for? X yes ___ no (explain)
Will it be retained? ___ yes ___ no (explain) See comments (V)

-4-

Environmental, Battlefield, Natural and Archeological Features

- a. What is the general condition of the site? excellent good
 needs repairs (explain)
- b. Are there visible archeological ruins, remains or artifacts? yes no
Are they well cared for? yes no (explain)
- c. Has there been recent site disturbance, digging, or construction?
 no yes (explain)
- d. Are there plans for future site work or construction?
 no yes (explain) see comments (V)

3. Historic District Features

- a. What is the general physical condition of the buildings, roadways, and other historic features of the district? excellent good
 needs repair (explain) N A
- b. In general, what is the level of construction activity in the district?
 high construction activity moderate low NA
- c. Is there a local design review board, historic district commission, or other governmental body which reviews construction activity in the district? yes no NA

III. Building, Site, or Historic District Integrity

1. Are there any conditions on the lands adjacent to the Landmark that might result in serious impairment, diminishment, or destruction of Landmark resources, character, and/or significance? no yes (explain)
2. Has there been an introduction of visual, audible, or atmospheric elements that are out of character with the property and its setting?
 no yes (explain)
3. Are there any potential threats (i.e., highways, adjacent construction, zoning changes, etc.) likely to occur in the future? no yes (explain)

see comments (V)
4. Is there any urgency regarding any of the threats? no yes (explain)
Probably not, since specific plans will not be finalized for some time. See comments (V)

Does the owner show interest in the long term preservation of the Landmark?
no yes. (explain) City expresses concern for landmark preservation, but
ational Trust for Historic Preservation distrusts MUNI's commitment. See comments (V).

IV. Supplementary Information

1. Does the Landmark have a plaque? Xyes no two plaques. One is displayed
Is it displayed? Xyes no in the Cable Car Barn, the other at the Cable
Car Terminal at the foot of Hyde Street.
2. Has an agreement form been submitted? Xyes no 3-25-64
If no, does the owner wish to sign an agreement with HCRS? yes no

V. Comments: Early in 1978 the City and County of San Francisco, long concerned about the safety, cost and reliability problems associated with the cable car system, initiated a \$415,000 contract study of the system. The overall purpose of this study, conducted by an architectural engineering consulting firm under contract to the city, and partially funded by an Urban Mass Transportation Administration (UMTA) grant, is to investigate the possible ways that the system can be improved, modernized, and otherwise made more efficient, safe and dependable. The contract consultant has been charged with two basic tasks: 1) to investigate the rehabilitation of the Cable Car Barn, and 2) to inventory the current condition of the cable care system. This study is currently in progress and will not be completed until early next year, at which time it will be forwarded to the City as recommendations/options for modification of the cable car system. The City's Municipal Railway (MUNI), Public Utilities Commission, and Board of Supervisors, and UMTA will then review the consultant's recommendations and reach a decision regarding the future of the Cable Car Rehabilitation Project based on those recommendations as contained in the study. At that time the city will decide which portions it will seek to fund through its already obtained UMTA grant. Some of the improvements to the cable car system that are being explored include the following:

Marianne Stoklos-Schwood
for Julie Nagle
Signature

7/25/78
Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON 25, D. C.

The National Survey of Historic Sites and Buildings

San Francisco Cable Cars, California

There are approximately 10 miles of cable car tracks still remaining in the San Francisco Municipal Railway. They are the only ones still operating in the United States. One terminus of this cable car operation is in the heart of downtown San Francisco, at the corner of Powell and Market Streets. It is a common and always an interesting sight to see the crowds of people loading on and hanging on to the sides of the little cars in the summertime as they start up the hill from the corner of Powell and Market Streets. At this point there is a turntable which the car operator uses to turn the car around.

The cable car was contrived by Andrew S. Hallide, an English builder of aerial cables for mines in the western United States: He arranged a system by which the heavy cables, laid underground, would draw the cars up the steep hills of San Francisco. The first underground cable track was laid from Kearny Street over Nob Hill to Leavenworth in August 1873. In a relatively short time 8 companies had put down 112 miles of cable track in the city. Other cities, such as New York, Washington, D. C., Cincinnati, Boston, and Chicago soon had their cable car systems.

But electric street cars were replacing cable cars almost everywhere by the early 1890's, except on steep grades. It is this condition which prevails on many of downtown San Francisco's streets, some of them known for their very steep pitches, that prolonged the life of the cable car there. Recent proposals and attempts to remove the last remaining vestige of cable car transportation in San Francisco have always produced an outcry from an enraged citizenry that has come to look upon the Powell Street cable car line as a beloved institution and an irreplaceable part of the City's atmosphere and life. As the last of its kind, and now a symbol of a departed era and yet a landmark of San Francisco, the cable cars have an unusual significance.

SAN FRANCISCO CABLE CARS

San Francisco, California

This method of urban transportation--cars moved by gripping moving underground cables--was pioneered in San Francisco in 1873. Today the ten-mile cable car system of San Francisco is the only example of this once important means of city transportation still operating in the United States.

San Francisco's existing cable car system is comprised of three separate lines, all owned and operated by the San Francisco Municipal Railway. These lines are: the Powell-Mason line, the Powell-Hyde line, and the California line, which runs on California Street from Market Street to Van Ness Avenue.

The cable car was invented by Andrew S. Hallide, a San Francisco engineer and builder of metal aerial cables for use in mines in the western United States. Born in London of Scottish parents in 1836, he came to California with his father while still a boy. Having already perfected metal cables that could withstand a tremendous strain, he began working in 1869 on the problem of developing a cable grip that would carry a load of passengers up the steep San Francisco hills. In 1872-73 Hallide arranged a system by which the heavy cables, laid underground and moved by a steam-driven power plant, would draw the cars up these hills. The first underground cable track was laid from Kearny Street over Nob Hill, via Clay Street, to Leavenworth; this line began operations on August 1, 1873.

By 1880, eight lines had put down 112 miles of cable in the city. Other cities, such as New York, Washington, D. C., Cincinnati, Boston, Chicago, and Seattle, soon had their cable car systems. By the mid-1890s, however, electric street cars were replacing cable cars almost everywhere, except on steep grades. It is this condition which prevails on many downtown San Francisco streets that prolonged the life of the cable car there.

Dedication
Cable Car Barn and
Visitors Gallery

November 10, 1967

The Cable Car Barn, located at Washington and Mason Streets, dates from 1887 when the structure was originally built to house machinery powering the Ferries and Cliff House Railway.

Today, restored to its general turn of the century appearance, it provides power for moving 10 1/2 miles of 1 1/4-inch cable beneath some of San Francisco's sharpest hills at a steady 9 1/2 miles an hour.

The structure was virtually demolished during the 1906 earthquake and fire, and was rebuilt the following year.

The Cable Car Division of the Municipal Railway (which is a department of the San Francisco Public Utilities Commission) operates a fleet of 39 cable cars.

And it is looking for more. Car No. 520 will soon come off the "assembly line" at the Muni's Elkton shops. As the Honorable Alan S. Boyd, Secretary of Transportation, points out in his dedication comments, the car was rebuilt from "a piece of an old Cable Car roof, a piece of a seat, and an old windshield wiper".

The system's equipment is basically the same as that Andrew Smith Hallidie tested for the first time on August 1, 1873.

Hallidie's pity for the horses that struggled up the hills with heavy horse-cars is well remembered. He began working on a better system in 1869, coincident with the start of production of wire rope by A.S. Hallidie and Company at Mason and Chestnut Streets.

Andrew Smith, the cable car inventor's father, developed the wire rope idea, which was patented between 1835 and 1849.

The son, Andrew Smith, chose the surname Hallidie to honor his godfather and uncle, Sir Andrew Hallidie. In his book, "Cable Car Days in San Francisco", historian Edgar M. Kahn stated that Sir Andrew was physician to King William IV and Queen Victoria.

Hallidie Machinery, still a going concern in Seattle, Washington, is a subsidiary of Western Gear Corporation which manufactured some of the machinery in use at the Cable Car Barn.

Charles Bannon, Vice President of the Western Gear Corporation, plans to attend the dedication ceremony. His firm was born as the Pacific Gear and Tool Works in San Francisco in 1888.

By 1890 the City's population of approximately 299,000 persons was served by eight cable car companies operating 600 cars over 110 miles of single cable track. They employed 1500 men.

Today the cable car system has much more than charm and personality.

At the present rate it will carry about 11 million passengers this year--about 800,000 more than were carried last year.

###

Excerpts from the remarks of
The Honorable Earl Warren, Chief Justice of the United States
marking the San Francisco Cable Car System
as a national historic landmark at Victoria
Plaza, Hyde and Beach Streets, Thursday,
October 1, 1964 - 2:00 p.m.

This occasion is of great significance to the citizens of San Francisco, but it is also one which will attract the attention of people who hear about it all over the world. There is an affection for San Francisco's cable cars in many lands. They are truly world-renowned.

I wish to express my thanks to Assistant Secretary of the Interior Carver, the National Park Service, and Mayor Shelley, for making my short visit to California not only more enjoyable but one that I shall recall with pleasure for a long time to come because I too have great affection for San Francisco's cable cars.

My appreciation of them is based on a host of memories. When I was a freshman student at the University of California I first rode the cable cars on the San Francisco hills. In those days the cable cars were always a part of our week-end outings. I associate them as hundreds of thousands of people do, with stimulating experiences, superb views of the Bay, and the sheer excitement of being in "everyone's favorite city." It is difficult for people to ride the cable cars in San Francisco on a clear, crisp day without feeling the thrill of activity and progress that characterizes San Francisco despite the age of the cable car system.

When the inventor, Andrew Hallidie, first operated the cars on August 1, 1873, it is probable that he and his passengers shared some of the same feelings that we still have on taking a cable car ride. The first run was up Clay Street, over Nob Hill, to Leavenworth many years ago. The cars had been labeled "Hallidie's Folly" but they soon proved themselves, and other American cities installed them until they were replaced by electric street-cars in the last days of the last century. In all these years, since 1873, the familiar sound of the cables singing in the slots along Powell, California, Hyde and Mason Streets is a familiar sound to San Francisco residents and visitors.

This ceremony today is part of a nationwide celebration of American landmarks, and the week of September 28 to October 4 has been designated "American Landmarks Week." It is being sponsored by the National Trust for Historic Preservation.

Preservation of the American heritage is the keynote of "American Landmarks Week." It was also the basic objective of the Congress of the United States when it passed the Historic Sites Act of 1935.

All too frequently structures and areas which represent the achievement of past generations are thoughtlessly and wantonly destroyed in the name of progress. We as a people are the product of a history that has shaped this nation into the greatest nation in the world. It is indeed fortunate that recently there has been a revival of a determination to preserve the cherished landmarks of the United States. In the forefront of that effort is the National Trust for Historic Preservation.

On this occasion I must also mention the work that is being done by the National Park Service. Regional Parks Director Edward Hummel, who is here today, is one of those who has an historic background in his work for the National Park Service, and there are many more in that agency who share his concern for preserving America. Fortunately the Park Service program has received the full support of Secretary of the Interior Udall. As a Californian I am especially pleased to note that the National Park Service is devoting more time to some of the historic places and things that are so interwoven in California's history. Within a few days, October 11, a similar ceremony will be held at the Old Mission Dam near San Diego, probably the first water conservation project in the western states.

In closing, may I direct my remarks more pointedly to the young men and young women who stand here today facing some of the most rapid changes in California's history. Please don't leave the preservation of historic sites and the great achievements of past generations in California to the older generations. Study the value of past accomplishments, become acquainted with what has been done in California, and use your youthful energy to help keep those things in California which are beautiful and deserving of preservation.

Few people will realize the vast inheritance that we as Californians possess until vital parts of it are taken away. It is only through knowledge of the things that have made California a distinctive place for the people of the world, such as the San Francisco cable cars, that you will learn to love and appreciate and defend California against thoughtless change merely for the sake of change. With drive and determination and knowledge, the young people of California can make California an even better place to live.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

| | |
|------------------|--|
| FOR NPS USE ONLY | |
| RECEIVED | |
| DATE ENTERED | |

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC SAN FRANCISCO CABLE CARS

AND/OR COMMON

Same

2 LOCATION

STREET & NUMBER 1390 Washington Street (Car Barn and Power House)

___ NOT FOR PUBLICATION
CDNGRESSIONAL DISTRICT

CITY, TOWN San Francisco

STATE VICINITY OF

California 06 CODE COUNTY CODE
San Francisco 075

3 CLASSIFICATION

| CATEGORY | OWNERSHIP | STATUS | PRESENT USE |
|---|---------------------------|---|---|
| <input checked="" type="checkbox"/> DISTRICT | ___ PUBLIC | <input checked="" type="checkbox"/> OCCUPIED | ___ AGRICULTURE <input checked="" type="checkbox"/> MUSEUM |
| <input checked="" type="checkbox"/> BUILDING(S) | ___ PRIVATE | ___ UNOCCUPIED | ___ COMMERCIAL ___ PARK |
| <input checked="" type="checkbox"/> STRUCTURE | ___ BOTH | ___ WORK IN PROGRESS | ___ EDUCATIONAL ___ PRIVATE RESIDENCE |
| ___ SITE | PUBLIC ACQUISITION | ACCESSIBLE | ___ ENTERTAINMENT ___ RELIGIOUS |
| <input checked="" type="checkbox"/> OBJECT | ___ IN PROCESS | <input checked="" type="checkbox"/> YES: RESTRICTED | ___ GOVERNMENT ___ SCIENTIFIC |
| | ___ BEING CONSIDERED | ___ YES: UNRESTRICTED | ___ INDUSTRIAL <input checked="" type="checkbox"/> TRANSPORTATION |
| | | ___ NO | ___ MILITARY ___ OTHER: |

4 OWNER OF PROPERTY

NAME San Francisco Municipal Railway

STREET & NUMBER 1390 Washington Street

CITY, TOWN San Francisco VICINITY OF STATE
California

5 LOCATION OF LEGAL DESCRIPTION

CDURTHOUSE, REGISTRY OF DEEDS, ETC. County Recorder's Office

STREET & NUMBER Room 167, City Hall (Corner Grove and Polk Streets)

CITY, TOWN San Francisco STATE
California

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

DATE

___ FEDERAL ___ STATE ___ COUNTY ___ LDCAL

DEPDSITORY FOR SURVEY RECORDS

CITY, TOWN STATE

7 DESCRIPTION

| CONDITION | | CHECK ONE | CHECK ONE |
|---|---------------------------------------|---|---|
| <input checked="" type="checkbox"/> EXCELLENT | <input type="checkbox"/> DETERIORATED | <input checked="" type="checkbox"/> UNALTERED | <input checked="" type="checkbox"/> ORIGINAL SITE |
| <input type="checkbox"/> GOOD | <input type="checkbox"/> RUINS | <input type="checkbox"/> ALTERED | <input type="checkbox"/> MOVED DATE _____ |
| <input type="checkbox"/> FAIR | <input type="checkbox"/> UNEXPOSED | | |

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The designated "San Francisco Cable Cars" National Historic Landmark, consists of the cable cars themselves, the mileage of track and cable which remains today (approximately 10 miles on 8 different streets), and the building at Washington and Mason Streets which serves as both the power house and the car-barn, as well as the turning mechanisms which one finds at the ends of the various lines of track.

Since the cars can only move in one direction, when one of them reaches the end of the line, it must be turned around. This is accomplished by driving the car on to a swivelling circular section of the pavement and then having it rotated by the driver and/or passengers.

The power for the system of underground cables is supplied from a building at Washington and Mason Streets. There, in the building that also serves as the car-barn and now a cable car museum, a series of electrically driven wheels keep the cables of San Francisco moving beneath the streets at a steady pace. When the cable car is to be moved along, the driver engages a gripping mechanism which grasps the cable and moves the car along the street. When he wants to stop, he releases the grip and engages a brake, if the car is on grade.

The cable cars of San Francisco constitute one of the city's most identifiable symbols and because of their "quaintness" draw many tourists to the city each year. Only San Francisco retains this form of street railway which once was used in many other American cities.

The San Francisco cable car system consists of the following:

- 1) Rails on which the cars run.
- 2) Cars which run on the rails. There are 39 cars in the fleet.
- 3) Roundtable turnarounds at the end of the lines. This is necessary since the cars can only run in one direction.
- 4) A moving cable between the tracks and below ground, covered over at ground level, with a narrow slot left so that the clutch mechanism from the car can reach through and grasp the moving cable.
- 5) A car-barn and repair shop at the corner of Washington and Mason Streets, which also contains the huge winding mechanism to keep the cables continuously moving throughout the city of San Francisco.

The two-storey building is a simple brick commercial structure with little of particular architectural note. A pair of string courses serve to separate visually the first from the second floor, while the large windows throughout the building are topped by segmental arches at the upper floor and a much more flattened segmental type of arch at the ground floor. This theme carries through except at the two corners of the building on Mason Street, where a round arch is used, creating a visual pin for the structure on that street. The rear of the building is "pinned", so to speak, by a huge mass of brick acting as the smokestack.

8 SIGNIFICANCE

| PERIOD | AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW | | | | |
|---|--|---|---|--|--|
| <input type="checkbox"/> PREHISTORIC | <input type="checkbox"/> ARCHEOLOGY-PREHISTORIC | <input type="checkbox"/> COMMUNITY PLANNING | <input type="checkbox"/> LANDSCAPE ARCHITECTURE | <input type="checkbox"/> RELIGION | |
| <input type="checkbox"/> 1400-1499 | <input type="checkbox"/> ARCHEOLOGY-HISTORIC | <input type="checkbox"/> CONSERVATION | <input type="checkbox"/> LAW | <input type="checkbox"/> SCIENCE | |
| <input type="checkbox"/> 1500-1599 | <input type="checkbox"/> AGRICULTURE | <input type="checkbox"/> ECONOMICS | <input type="checkbox"/> LITERATURE | <input type="checkbox"/> SCULPTURE | |
| <input type="checkbox"/> 1600-1699 | <input type="checkbox"/> ARCHITECTURE | <input type="checkbox"/> EDUCATION | <input type="checkbox"/> MILITARY | <input type="checkbox"/> SOCIAL/HUMANITARIAN | |
| <input type="checkbox"/> 1700-1799 | <input type="checkbox"/> ART | <input type="checkbox"/> ENGINEERING | <input type="checkbox"/> MUSIC | <input type="checkbox"/> THEATER | |
| <input checked="" type="checkbox"/> 1800-1899 | <input type="checkbox"/> COMMERCE | <input type="checkbox"/> EXPLORATION/SETTLEMENT | <input type="checkbox"/> PHILOSOPHY | <input checked="" type="checkbox"/> TRANSPORTATION | |
| <input type="checkbox"/> 1900- | <input type="checkbox"/> COMMUNICATIONS | <input type="checkbox"/> INDUSTRY | <input type="checkbox"/> POLITICS/GOVERNMENT | <input type="checkbox"/> OTHER (SPECIFY) | |
| | | <input type="checkbox"/> INVENTION | | | |

SPECIFIC DATES

BUILDER/ARCHITECT Designer: Andrew Hallidee

STATEMENT OF SIGNIFICANCE

The San Francisco Cable Cars are the only ones still operating in a United States city. As a system of traction locomotion designed to accomodate even the steepest of grades, the cable cars have remained useful in this very hilly city, while they were replaced in places less hilly by electric street railways, and then trolleys and buses. San Francisco cherishes the system as a quaint reminder of its past, as one of its prime tourist attractions, and in fact as the virtual trademark of "the city by the Bay."

History

Andrew S. Hallidee, an Englishman who build aerial cables for use in the mines of the western U.S.A., devised the contrivances used in San Francisco. He arranged a system by which the heavy cables, laid underground, would draw the cars up the steep hills of San Francisco. The first underground cable track was laid from Kearny Street over Nob Hill to Leavenworth, in August 1873. In a relatively short time, eight companies had put down 112 miles of cable track in the city, and other cities, such as New York, Washington, D.C., Cincinnati, Boston, and Chicago, soon had their cable car system. But electric street cars were replacing cable cars almost everywhere by the early 1890's, except on steep grades. It is this condition which prevails on many of downtown San Francisco's streets, some of them known for their very steep pitches, that prolonged the life of the cable car there.

Recent proposals and attempts to remove the last remaining vestige of cable car transportation in San Francisco have always produced an outcry from an enraged citizenry that has come to look upon the Powell Street line, for instance, as a beloved institution and an irreplaceable part of the city's atmosphere and life. As the last of its kind, and now a symbol of a departed era and yet a landmark of San Francisco, the cable cars have an unusual significance.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Hilton, George and Doe, John F., The Electric Interurban Railways of America (Stanford, 1960).

Smith, J. Bucknell, A Treatise Upon Cable or Rope Traction as Applied to the Working of Street and Other Railways (London, 1892).

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY Approximately 5½

UTM REFERENCES

| | | | | | | | |
|---|------|---------|----------|---|------|---------|----------|
| D | 10 | 550960 | 4184400 | A | 10 | 553400 | 4184380 |
| | ZONE | EASTING | NORTHING | | ZONE | EASTING | NORTHING |
| B | 10 | 553400 | 4181800 | C | 10 | 550940 | 4181800 |
| | ZONE | EASTING | NORTHING | | ZONE | EASTING | NORTHING |

VERBAL BOUNDARY DESCRIPTION

See continuation sheet

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

| STATE | CODE | COUNTY | CODE |
|-------|------|--------|------|
| STATE | CODE | COUNTY | CODE |

11 FORM PREPARED BY

NAME / TITLE

James Dillon, Architectural Historian, NPS

ORGANIZATION

STREET & NUMBER

CITY OR TOWN

Landmark

Designated: JAN. 29, 1944

DATE
Boundary Certification

TELEPHONE

STATE

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL

STATE

LOCAL

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE

DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

ATTEST:

KEEPER OF THE NATIONAL REGISTER

DATE

DATE

(NATIONAL HISTORIC PRESERVATION SERVICE)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

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DATE ENTERED

CONTINUATION SHEET

ITEM NUMBER 10

PAGE 2

The boundary of the designated San Francisco Cable Cars Landmark, consists firstly, of a building at Washington and Mason Streets, and secondly, of about 10 miles of streets, all that remains with active cable car tracks, of the once more extensive system throughout San Francisco. The building serves a dual function: 1) as a car-barn, it stores the equipment which runs on the tracks, and 2) a power-house, it contains the winding mechanisms for the cables that pull the cars.

The tracks today run on eight streets in the "Nob Hill," "Chinatown," and "North Beach" sections of the city. These streets are:

- 1) Hyde Street, between Beach and Washington Streets.
- 2) Washington Street, between Hyde and Powell Streets.
- 3) Powell Street, between Market and Jackson Streets.
- 4) Jackson Street, between Hyde and Powell Streets.
- 5) California Street, between Van Ness Avenue and Market Street.
- 6) Mason Street, between Washington Street and Columbus Avenue.
- 7) Columbia Avenue, between Mason and Taylor Streets.
- 8) Taylor Street, between Bay and Chestnut Streets.

The lines are identified on the accompanying USGS map of San Francisco. The lines cover approximately five acres. The acreage of the building at Washington and Mason Streets is approximately 1/2 acre. Fronting approximately 150 feet on each of those streets, the boundary of the building is a 150 foot square at the northwest corner of Washington and Mason Streets.

CITY PLANNING COMMISSION

RESOLUTION NO. 6725

WHEREAS, A proposal to designate the Cable Car Barn and Power House as a Landmark pursuant to the provisions of Article 10 of the City Planning Code was initiated by the Landmarks Preservation Advisory Board on April 28, 1971, and said Advisory Board after due consideration, has recommended approval of this proposal; and

WHEREAS, The City Planning Commission, after due notice given, held a public hearing on June 17, 1971, to consider the proposed designation and the report of said Advisory Board; and

WHEREAS, The Commission believes that the proposed Landmark has a special character and special historical, architectural and aesthetic interest and value; and that the proposed designation would be in furtherance of and in conformance with the purposes and standards of the said Article 10;

NOW THEREFORE BE IT RESOLVED, First, That the proposal to designate the Cable Car Barn and Power House as a Landmark pursuant to Article 10 of the City Planning Code is hereby APPROVED, the location and boundaries of the landmark site being as follows:

Beginning at the point of intersection of the westerly line of Mason Street and the northerly line of Washington Street; running thence westerly along said line of Washington Street 187 feet 6 inches; thence at a right angle northerly 137 feet 6 inches; thence at a right angle westerly 18 feet 9 inches; thence at a right angle northerly 137 feet 6 inches to the southerly line of Jackson Street; thence at a right angle easterly along said line of Jackson Street 45 feet 10 inches; thence at a right angle southerly 77 feet 6 inches; thence at a right angle easterly 22 feet 11 inches; thence at a right angle southerly 16 feet; thence at a right angle easterly 68 feet 6 inches; thence at a right angle northerly 2 feet; thence at a right angle easterly 69 feet to the said line of Mason Street; thence southerly along said line of Mason Street 183 feet 6 inches to the point of beginning; being Lot 5 in Assessor's Block 190.

Second, That the special character and special historical, architectural and aesthetic interest and value of the said Landmark justifying its designation are as follows:

This is the only surviving cable car barn and power house in the city, of some fourteen which at one time or another served various lines. Although cable propulsion was invented in England early in the nineteenth century, its successful application to actual operation did not occur until Andrew S. Hallidie's inaugural run up the Clay Street hill, beginning at Portsmouth Plaza, on August 1, 1873. The great and world-wide interest generated by San Francisco's success lasted well into the 1890's, to be displaced by the advent of electric railways. In the 1880's when cable car systems were at the height of their popularity, they existed in a score of cities from Edinburgh to Melbourne and from Brooklyn to Constantinople; but San Francisco was unquestionably the world's cable car capital then, and it has fortunately remained so to the present.

The Washington and Mason Cable Car Barn was constructed in 1885-87. The building at first housed the cable cars and propelling machinery for the Powell Street Railway Company, which merged into the Ferries and Cliff House Railway Company in 1887 and after a series of further mergers became the property of the Municipal Railway in 1944. Power was supplied to the engines from steam boilers until 1906, after which the system was converted to electric motor operation. The original three-story building was in large part destroyed by the Great Fire that followed the 1906 Earthquake, but was reconstructed with two stories, preserving a similar general appearance.

A plaque designating the San Francisco Cable Car System as a National Historic Landmark was affixed to the Barn in November 1967, when the restored building was rededicated by Secretary Boyd of the U.S. Department of Transportation. This plaque had originally been placed at the Victorian Park turntable of the Powell-Hyde line in 1964, with then Chief Justice Earl Warren of the U.S. Supreme Court presiding at the ceremonies.

Third, That the said Landmark should be preserved generally in all of its particular exterior features as existing on the date hereof and as described and depicted in the photographs, case report and other material on file in the Department of City Planning in Docket No. LM71.1; the summary description being as follows:

The building has two stories, with entrances from two levels, on both Mason Street and Washington Street. It is constructed of red brick, now restored to the appearance of the original structure. Thick, heavy bearing walls present a warehouse-like aspect, preserving an excellent example of industrial construction. The windows are large and multipaned, those at the lower level being deeply embrasured and very slightly arched with a brick keystone pattern above; while at the upper level some windows -- including a pair facing each street at the corner -- have rounded arches and some have flattened arches, with corresponding brick patterns lightly traced in each case above the window. Decorative circular patterns appear in brick below each window, and between some pairs of windows, at the upper level. There are two horizontal projecting brick courses between the upper and lower levels, as well as a projecting course at the roof line.

A prominent feature of the building is the round chimney that sits on a squared base atop the rear of the building's Washington Street side; once functional, it is no longer used. The name "Ferries and Cliff House Railway Co. 1887" is affixed to the building above the central windows on each street facade.

AND BE IT FURTHER RESOLVED, That the Commission hereby directs its Secretary to transmit the proposal for designation, with a copy of this Resolution, to the Board of Supervisors for appropriate action.

AND BE IT FURTHER RESOLVED, That the Commission hereby directs its Secretary to transmit the proposal for designation, with a copy of this Resolution, to the Board of Supervisors for appropriate action.

I hereby certify that the foregoing Resolution was ADOPTED by the City Planning Commission at its regular meeting of June 17, 1971.

Lynn E. Pio
Secretary

AYES: Commissioners Crowley, Fleishhacker, Mellon, Newman, Porter,
Ritchie & Rueda
NOES: None
ABSENT: None
PASSED: June 17, 1971

LANDMARKS PRESERVATION ADVISORY BOARD
Revised Case Report - February 24, 1971

CABLE CAR BARN
AND POWER HOUSE

- OWNER:** City and County of San Francisco (under the jurisdiction of the Public Utilities Commission, Municipal Railway).
- LOCATION:** Northwest corner of Washington and Mason Streets (lot has 183.5 feet of frontage on Mason Street and 187.5 feet of frontage on Washington Street, and extends through to Jackson Street); being Lot 5 in Assessor's Block 190.
- HISTORY AND SIGNIFICANCE:** This is the only surviving cable car barn and power house in the city, of some fourteen which at one time or another served various lines. Although cable propulsion was invented in England early in the nineteenth century, its successful application to actual operation did not occur until Andrew S. Hallidie's inaugural run up the Clay Street hill, beginning at Portsmouth Plaza, on August 1, 1873. The great and world-wide interest generated by San Francisco's success lasted well into the 1890's to be displaced by the advent of electric railways. In the 1880's when cable car systems were at the height of their popularity, they existed in a score of cities from Edinburgh to Melbourne and from Brooklyn to Constantinople; but San Francisco was unquestionably the world's cable car capital then, and it has fortunately remained so to the present.
- The Washington and Mason Cable Car Barn was constructed in 1885-87 near the site of the original spring and reservoir of the Spring Valley Water Company, which along with other private companies served the city's needs during the 1850's. The building at first housed the cable cars and propelling machinery for the Powell Street Railway Company, which merged into the Ferries and Cliff House Railway Company in 1887 and after a series of further mergers became the property of the Municipal Railway in 1944. Power was supplied to the engines from steam boilers until 1906, after which the system was converted to electric motor operation. The original three-story building was in large part destroyed by the Great Fire that followed the 1906 Earthquake, but was reconstructed with two stories, preserving a similar general appearance.
- ARCHITECTURAL DESCRIPTION:** The building has two stories, with entrances from two levels, on both Mason Street and Washington Street. It is constructed of red brick, now restored to the appearance of the original structure. Thick, heavy bearing walls present a warehouse-like aspect, preserving an excellent example of industrial construction. The windows are large and multipaned, those at the lower level being deeply embrasured and very slightly arched with a brick keystone pattern above; while at the upper level some windows -- including a pair facing each street at the corner -- have rounded arches and some have flattened arches, with corresponding brick patterns lightly traced in each case above the window. Decorative circular patterns appear in brick below each window, and between some pairs of windows, at the upper level. There are two horizontal projecting brick courses between the upper and lower levels, as well as a projecting course at the roof line.

LANDMARKS PRESERVATION ADVISORY BOARD

CABLE CAR BARN
AND POWER HOUSE
(Page Two)

ARCHITECTURAL

DESCRIPTION:
(Continued)

A prominent feature of the building is the round chimney that sits on a squared base atop the rear of the building's Washington Street side; once functional, it is no longer used. The name "Ferries and Cliff House Railway Co. 1887" is affixed to the building above the central windows on each street facade.

VISITORS
GALLERY:

A new visitors gallery and mezzanine has been constructed inside the Cable Car Barn, to enable the public to view the "winding room" with its imposing wheels which move the long cables of the system. Wheels and columns have been brightly painted by workers at the Barn. The upper level contains tracks and pits for storage and repair of the cars, storage of parts, and offices for master mechanic and superintendent, as well as cable cars dating from the 1870's and an exhibit of historic photographs. There is an elevator -- no longer in use since the end of the Sacramento-Clay Street line -- for raising cars from lower to higher level, with tracks entering at both levels.

SURROUNDING LAND
USE AND ZONING:

Uses are mixed residential and neighborhood commercial across Mason Street to the east and north; and residential to the west and northwest. To the south across Washington Street is the Chinatown Recreational Center of the Recreation and Park Department, a corner formerly the site of the old Washington Grammar School. Zoning of the Barn is R-4 (never rezoned to P for Public Use) with R-4 predominating to the north, west and south, and C-2 to the east and north; more distantly to the south the top of Nob Hill is zoned R-5.

DESIGNATION BY
OTHER GOVERNMENT
AGENCIES:

A plaque designating the San Francisco Cable Car System as a National Historic Landmark was affixed to the Barn in November 1967, when the restored building was rededicated by Secretary Boyd of the U. S. Department of Transportation. This plaque had originally been placed at the Victorian Park turntable of the Powell-Hyde line in 1964, with then Chief Justice Earl Warren of the U. S. Supreme Court presiding at the ceremonies.

1201 Mason
street address

190 5 3
block number lot number summary

Cable Car barn / 3 #43
building type/use/number of floors landmark number

RELATIONSHIP WITH SURROUNDING BUILDINGS

Relationship of setting to building -2 -1 0 1 2 3 4 5

Importance as contribution to a cluster/streetscape -2 -1 0 1 2 3 4 5

ARCHITECTURAL DESIGN VALUATION

Facade proportions -2 -1 0 1 2 3 4 5

Richness/Excellence of detailing/decoration -2 -1 0 1 2 3 4 5

Unique visual feature of interest 0 1 2 3 4 5

Example of a rare or unusual style or design 0 1 2 3 4 5

Overall architectural quality -2 -1 0 1 2 3 4 5

PROPOSED FOR FURTHER INVESTIGATION

CORNICE, PARAPET, APPENDAGE

Importance of cornice to building design -2 -1 0 1 2 3 4 5

Cornice contribution to streetscape -2 -1 0 1 2 3 4 5

FACADE CONDITION

Physical condition -2 -1 0 1 2 3 4 5

Paint/Material color -2 -1 0 1 2 3 4 5

REMODELING

Appropriateness of improvements -2 -1 0 1 2 3 4 5

3/10/75 KERN
date

Field Notes

A brick box industrial bldg, rare in these residential parts. Interiors are splendid.

Landmark #43

Review Notes

Junior League Listing

text index file

Northern California Guide

Other Listing _____

Landmark



photo J-37

87.412 R FI

Address 1201 Mason Block 190 Lot

REVIEW PANEL NOTES

SETTING

-2 -1 0 1 2 3 4 5

CLUSTER/STREETSCAPE *SBW*

-2 -1 0 1 2 3 4 5

FACADE PROPORTIONS

-2 -1 0 1 2 3 4 5

DETAILING/DECORATION

-2 -1 0 1 2 3 4 5

UNIQUE FEATURES *SBW*

0 1 2 3 4 5

RARE STYLE/DESIGN

0 1 2 3 4 5

OVERALL ARCHITECTURAL QUALITY

-2 -1 0 1 2 3 4 5

SUMMARY 3

STYLE

ARCHITECT
DESIGNER
BUILDER

87.412 R

APPROXIMATE DATE



SEE BACK FOR COMMENTS

Important
visual moment in
the street - hard
to judge as exterior
alone when interior
is the main point.

S. P. W.

DATE _____
DRAWN BY _____
CHECKED BY _____
DESIGNED BY _____
DATE _____
SEE BACK FOR COMMENTS

87.415 R

San Francisco Cable Railway
Washington and Mason Streets
San Francisco
San Francisco County
California

HAER No. CA-12

HAER
CAL,
38-SANFRA,
137-

Photographs
Reduced Copies of Measured Drawings
Written Historical and Descriptive Data

ADDENDUM
FOLLOWS...

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

HAER
CAL,
38-SANFRA,
137-

HISTORIC AMERICAN ENGINEERING RECORD

San Francisco Cable Railway

Location: Powerhouse and carbarn located at southwest corner of Washington and Mason Streets, San Francisco, California. Track located on Powell, Mason, Hyde, Washington, Jackson, and Taylor Streets, and Columbus Avenue.

Date of Construction: Existing system originally built 1877-1892. Rehabilitated throughout its life.

Present Owner: San Francisco Municipal Railway, City of San Francisco.

Present Use: Cable railway.

Significance: The last operating cable railroad in the world. Representative of an important type of urban transportation system intermediary between horse drawn vehicles and electric streetcars.

Historians: Patrick W. O'Bannon, Marcia Osterhout, Steven Petrow, September 1981

INTRODUCTION

Cable railways thrived in American cities for the twenty years from 1873 to 1893, operating more than 300 miles of track by the early 1890's. San Francisco, site of the first cable railway, accounted for fully one-fourth of this mileage. Today only San Francisco's 4.7 miles of cable railway survive. This system is the last remnant of a transportation technology that played an important role in expanding urban mass transportation facilities and which served as an intermediate step between the horse-drawn streetcar and the electric trolley.

Two of the cable traction companies operating in San Francisco constructed the lines which comprise the existing system. In order to appreciate fully the place of these surviving lines in the history of cable traction technology it is necessary to examine all eight of the firms that built cable railways in San Francisco. Rather than describing at length the technology of installations which no longer exist, this report will confine itself to brief histories of each of the cable railroad companies in San Francisco, and will concentrate on their contributions to cable traction technology, the basic elements of the system having changed little over the years. A detailed technological description of the trackway elements, powerhouse installation, and rolling stock will be given only for those companies whose lines are represented in the surviving system. In addition to these sections on company history and the technology of cable traction, a separate section of the report will deal with the impact of the cable car upon the growth and development of San Francisco.

The technology of wire cable traction is both simple and derivative. Andrew S. Hallidie, often considered the inventor of the cable railroad, drew upon his experience with the ore haulage systems used in the mines of California and Nevada to develop the Clay Street Hill Railroad, San Francisco's first cable railway. Hallidie based his system upon an "endless" wire rope, running at a constant speed. Passenger cars are attached or released from the cable by means of a grip, controlled by the driver or gripman. It is this ability to grasp or release the cable at the gripman's discretion that distinguishes cable railroads from the mining systems. The essential elements of a cable railroad include the "endless" wire rope; a series of sheaves or pulleys that carry the rope through a slotted tube or conduit beneath the street; a stationary power source, originally steam and now electric motors, that drive the cable; and a gripping device to connect the cars to the cable and permit their smooth operation.¹

Cable traction technology derived from the practice of using a wire cable driven by a stationary steam engine to draw loaded ore cars out of mines. Considering San Francisco's position as a provider of both capital and machinery to mining operations throughout the Far West it is hardly surprising that the first successful application of this mining technology to urban

¹The Pacific Cable Railway Co., The System of Wire-Cable Railways for Cities and Towns as Operated in San Francisco, Los Angeles, Chicago, St. Louis, Kansas City, New York, Cincinnati, Hoboken, Etc. (San Francisco: 1887), p. 17.

transportation needs occurred in San Francisco. Andrew S. Hallidie, who constructed San Francisco's first cable railroad in 1873, relied heavily upon his experience with ore haulage systems when designing his street railway installation.

Hallidie was at least the third American to attempt to use wire rope traction for urban transportation. Charles T. Harvey patented a system in 1866 in which a gripping fork or claw on a car engaged ferrules on an open ended cable. Harvey actually built and operated a line in New York City using this system between 1868 and 1870. In New Orleans former Confederate general George F. Beauregard experimented with an overhead cable system in 1870.² At an even earlier date Philadelphian E.S. Gardiner patented the basic elements of the underground conduit used in by all later cable railways in 1858.³ The degree to which Hallidie drew upon the work of these earlier inventors is unknown, but the essential elements necessary for a cable traction system clearly existed prior to his first interest in the subject.

The grip and cable represent an effort to forge a purely mechanical link between the period's horse-drawn streetcars and the stationary steam engine, the most common prime mover in post-Civil War America. Cable railroad engineers desired low speed engines of intermediate horsepower, usually of the Corliss type, easily adaptable to the variable loads experienced in daily operation of an urban transportation system. Large and heavy flywheels lessened the jarring and jerking resulting from cars gripping and releasing the cable.⁴ Engines of this type made no special demands upon the talents of contemporary engine builders, frequently being ordered straight from the builders' catalogues.

Although simple, cable technology also proved both inflexible and expensive. Prior to 1880 all cable roads ran only in straight lines, curves being considered impossible. Construction costs for the conduit alone averaged \$60,000 to \$100,000 per mile, fully two-thirds of the full cost of the line.⁵ In addition to the conduit, engines, and grip, a cable railway also required a variety of pulleys or sheaves to hold the cable down at the foot of steep grades and assist it over the summits of hills and around curves. The technology for negotiating curves, developed after 1880, required special construction work of a particularly heavy and expensive nature. Reversing the cars at the ends of the line necessitated either turntables or some type of switching arrangement.

THE CLAY STREET HILL RAILROAD

Andrew Smith Hallidie was born in London in 1836. His father, Andrew Smith,⁶

²George W. Hilton, The Cable Car in America (Berkeley: 1971), p. 17.

J. Bucknall Smith, A Treatise Upon Cable or Rope Traction as Applied to the Working of Street and Other Railways (London: 1887), pp. 9-15.

³Mining and Scientific Press, 43 (3 September 1881), pp. 145, 153.

⁴Street Railway Journal, 4 (October 1888), p. 263.

Hilton, p. 131.

⁵Hilton, p. 103.

held a number of patents for wire rope dating back as far as 1835. Young Hallidie's early training included work as both a mechanic and draftsman. In 1852, at the age of sixteen, Hallidie and his father came to California for the boy's health. Smith returned to England the following year, leaving his son behind.⁷

After a luckless stint gold mining, young Hallidie put his mechanical training to work, and in 1855, at the age of nineteen, designed and constructed a 200-foot long wire-suspension viaduct over the middle fork of the American River. In 1856 he began manufacturing wire rope, using one of his father's inventions, establishing a factory in San Francisco in 1857. Ten years later, in 1867, he took out patents for the "Hallidie Ropeway," a system for⁸ transporting ore out of mines by means of an overhead wire rope cable.

Hallidie first turned his attention to the problems of urban transportation in 1869. He claimed, in a paper read in 1891, to have conceived the idea of adopting his ore haulage system to urban transportation needs after watching the agony of street car horses struggling to climb the steep grade of Jackson Street between Kearny and Stockton on a wet, slippery, evening.⁹ It is a charming anecdote, and probably partially true, but it is doubtful that Hallidie invested thousands of dollars simply to relieve the sufferings of street car horses. His wire rope firm stood to increase its business and profits greatly should cable traction prove applicable to the urban setting.

Other evidence indicates that Hallidie did not originate the notion of using a stationary steam engine and an endless wire cable as the basis of a street railway system in San Francisco. A local attorney, Benjamin H. Brooks, acquired a franchise from the city in 1869 to construct a wire cable railway. Brooks and his engineer, W.H. Hepburn, a machinist at the Vulcan Foundry in San Francisco, laid their plans for the route, but failed to attract any investors. In 1872 they sold their franchise to Hallidie for a "nominal consideration."¹⁰ It is unknown whether Hallidie borrowed Brooks'

⁷Hilton, p. 21.

⁸Christopher Swan, Cable Car (Berkeley, California: 1978), p. 95.

⁸Hilton, p. 21.

Swan, p. 95.

Edgar M. Kahn, Cable Car Days in San Francisco, rev. ed. (Stanford, California: 1944), p. 28.

A.S. Hallidie, "A Brief History of the Cable Railway System Its Origin and Progress, and Papers in Connection Therewith," Report of the Mechanics' Institute Exposition, 1890 (San Francisco: 1891), p. 4.

A.S. Hallidie, The Mechanical Miners' Guide, 3rd ed. (San Francisco: 1879), p. 8.

⁹Hallidie (1891), p. 4.

Mining and Scientific Press, 43 (3 September 1881), p. 153.

¹⁰San Francisco Chronicle (22 April 1917).

Langley's San Francisco Directory: 1880 (San Francisco: 1880), p. 22.

and Hepburn's plans for his own project, but considering the controversy which later surrounded Hallidie and his draftsman, William Eppelsheimer, concerning the design of the Clay Street Hill Railroad it is not inconceivable.

Hallidie quietly began laying the plans for his own project in 1870, hiring an engineer named David R. Smith to survey a route along California Street between Kearny and Powell. The Sacramento Record published the news of Hallidie's intentions on 8 July 1870, and within a month a group of enterprising speculators had blocked Hallidie by securing a city franchise for a street railway which covered every street between Pine and Pacific.¹¹ This group apparently made no effort to develop their own traction system but merely secured the franchise in order to force Hallidie to buy them out. This tale may be a reference to Brooks' franchise, twisted over the years to make the attorney appear no more than a speculator intent on profiting from Hallidie's plans.

Between 1870 and 1872 Hallidie worked to perfect his plans. In 1870 he patented his first grip pulley, the device that drove the cable.¹² By 1872, Hallidie had eliminated most of the technical and legal obstacles, the acquisition of the franchise rights that year cleared the way for the construction of the road. The franchise granted by the city stipulated that the new line could not interfere with street traffic to any greater extent than existing horse car lines. Motors or engines which might frighten horses or people could not be used on the cars, which must be completely controllable at any point on the line. The franchise further stipulated that the line must be operable by 1 August 1873, and run daily between 5:00 am and 11:30 pm at a speed of between 3 and 8 mph, and that the fare be no higher than five cents.¹³

Hallidie was confident that the stipulations of the city franchise could be met easily, later stating that the "greatest difficulties were of a financial rather than of a mechanical character."¹⁴ Efforts to induce the public to purchase stock in the venture failed miserably, only 120 shares being subscribed, and the entire project appeared in doubt due to "a lack of faith in the system."¹⁵ Three associates of Hallidie's in the Mechanics' Institute of San Francisco, Joseph Britton, Henry L. Davis, and James Moffitt, all prominent businessmen in San Francisco, rescued the project in 1872, buying back the previously purchased shares of stock, and contributing \$60,000 to the enterprise.¹⁶

¹¹Mining and Scientific Press, 43 (3 September 1881), p. 153.

¹²Ibid.

¹³Smith, p. 21.

San Francisco. Board of Supervisors. Street Railroad Franchises Granted by the Board of Supervisors of the City and County of San Francisco and Statutes and Orders Relative to their Construction and Operation (San Francisco: 1884), pp. 1-6.

¹⁴Hallidie (1891), p. 5.

¹⁵Street Railway Journal, 1 (April 1885), p. 116.

¹⁶Hallidie (1891), p. 6.

During this time of financial uncertainty Hallidie abandoned his plans to construct the road on California Street, in part because his engineer, Smith, had taken a job in Central America. He determined instead to build two blocks north of California on Clay Street. Hallidie believed that because Clay reaches the summit of what is now Nob Hill it would provide a better demonstration of his systems' capabilities while also serving a more densely populated area.¹⁷

Hallidie and his three partners organized as the Clay Street Hill Railroad and took offices above the Clay Street Bank in June 1872. They sent out a prospectus to all property owners along the projected route that brought pledges of \$40,000 contingent upon completion of the line, although the company ultimately received only \$28,000 from the local property owners. Of the remaining funds needed to begin construction, \$20,000 came from Hallidie, and \$30,000 from the Clay Street Bank, which took a 10 year, 10% mortgage on the property.¹⁸

With financing secured, the mechanical questions resolved, and a city franchise in hand, the Clay Street Hill Railroad let the construction contract to W.H. Martin & Co., a bridge and wharf building firm. They broke ground on 2 June 1873.¹⁹ Construction of the roadbed involved removing and replacing two sets of underground gas and water mains and filling in or building over the cisterns of the city's old fire system. Even so Martin & Co. virtually completed construction by the end of July 1873, after only about 60 days.²⁰

The first trial of the Clay Street Hill Railroad took place at 4:00 am on 2 August 1873, four hours after the deadline set by the city franchise for the line's operation.²¹ Hallidie presumably chose this early hour both to avoid calling attention to the fact that the line had not complied with its franchise, and to keep any possible failure of the system as inconspicuous as possible.

The trial run started a block east of the powerhouse at Jones, the conduit being complete only to that point. It was made by an incomplete dummy or grip car, whose brakes consisted only of four simple levers, each of which required a man to press it against the wheels. The brakes could not hold the car on the street's steepest grades, a deficiency that proved "far from conducive to confidence, and the driver deputed to take the first car down succumbed to

¹⁷Mining and Scientific Press, 27 (27 September 1873), p. 200.

¹⁸Hallidie (1891), p. 6.

¹⁹Smith, p. 21.

²⁰Mining and Scientific Press, 27 (27 September 1873), p. 200.

²¹Hallidie (1891), p. 8.

²¹This first trial of Hallidie's line is traditionally dated as occurring on the morning of 1 August, however newspaper research indicates that it actually took place in the early hours of 2 August. The city franchise required the line to be operational by 1 August, but the trial took place so early the next day that apparently nobody noticed the failure to comply precisely with the stipulations of the franchise.

cogent scepticism regarding the reliability of the scheme and his personal safety."²² Hallidie took the place of the frightened gripman, and with a man stationed at each brake, and the entire car secured to telegraph poles by ropes in order to prevent a runaway, he began the descent of the hill. Despite the inadequate brakes the trip proved successful. The car was turned around at the lower terminus and made the return ascent without incident, demonstrating the practicality of the system. Hallidie described the moment as devoid of "frivolity," noting that "there was simply a mutual handshaking, and nothing but cold water."²³

A public demonstration that afternoon with a dummy and its attached car, or "trailer," proved equally successful, attracting a large crowd. The press of people endeavoring to help turn the dummy at the lower terminus broke a bolt connecting the grip to the car, necessitating a twenty-minute delay. Nevertheless, some ninety people clambered aboard the train for the trip up the hill. The train stalled at Powell Street when the cable began to slip on the grip pulley in the powerhouse, but Hallidie remedied the situation by tossing some sawdust onto the overly tarred cable, increasing the friction and permitting the uphill trip to be concluded successfully.²⁴

The Clay Street Hill Railroad opened for revenue service on 1 September 1873, following the completion of the conduit to the powerhouse at Leavenworth Street. For the first two days the firm offered free rides to the public in an effort attract riders and alleviate the public's fear of the new contraption.²⁵ Cars departed the termini at five minute intervals (three minutes during the evening rush hour) and took eleven minutes to run the length of the .6-mile long road.²⁶

After an initial period of scepticism and distrust of the new system the Clay Street Hill Railroad became a great success. In February 1874 the line carried 76,500 passengers, and by 1876 monthly ridership averaged 150,000 as the area served by the line, what is now known as Nob Hill, developed.²⁷ Built at a cost of about \$100,000, the line earned \$220-230 per day in the years prior to 1877 with daily expenses of \$120, resulting in a daily profit of \$100, or \$3000 per month. This amounted to a 5% return on the \$60,000 invested by the firm's stockholders, despite the "poorly managed" state of the company.²⁸ A modern historian of cable traction, George Hilton, claims the road returned as much as 35% on the initial investment.²⁹

The company extended its cable line west about .4 miles to Van Ness Avenue in 1877, replacing the horsecars the firm originally used to carry passengers

²²Smith, p. 22.

²³Hallidie (1891), p. 8.

²⁴Hallidie (1891), p. 9.

²⁵San Francisco Chronicle (3 April 1887).

²⁶Smith, p. 34.

²⁷Smith, p. 35.

²⁸Real Estate Circular, v.13, n.1 (November 1877).

²⁹Hilton, p. 23.

over this stretch of road. The earnings of Hallidie's company began to decline after the California Street Cable Railroad built a parallel line operating with a more modern physical plant.³⁰

The Clay Street Hill Railroad remained independent until 1888, when the Ferries & Cliff House Railroad purchased it for \$200,000, and incorporated it into its own Clay-Sacramento route. Service on the original installation ended on 9 September 1891, when the new owners decided to tear out the old double tracks and rebuild a single set of tracks along Clay. Following the final trip over the old road a bottle of champagne was broken over the dummy's grip as a tribute to this pioneer cable railroad.³¹

THE TECHNOLOGY OF THE CLAY STREET HILL RAILROAD

The Clay Street Hill Railroad, 2791 feet of narrow gauge (3-feet 6-inch) double track, ran on Clay Street from Kearny to Leavenworth, climbing 307 feet in seven blocks. The line's steepest grade, 16%, occurred in the block between Jones and Taylor. Hallidie made extensive use of redwood in constructing the line, because its experimental nature required that costs be kept to a minimum, precluding a more permanent type of construction.³²

The cable conduit, which cost about \$38,000 to construct, consisted of a series of cast iron frames, or "yokes," connected by wooden planking. The yokes were placed at 3-4 foot intervals in a 29-inch deep trench, to form the framework of the conduit. Two-inch thick redwood planking connected the yokes, forming the sidewalls of the 22"x16" tube in which the cable ran. Metal stays connected the tops of the yokes, stiffening the conduit and supporting wooden scantlings laid alongside the opening in the top of the yokes. These scantlings formed a 3/4-inch wide slot, set two inches off the centerline between the tracks. The gripping device entered the tube through this slot. Iron straps screwed to the tops of the scantlings protected them from excessive wear. Wooden ties extended laterally from each yoke, supporting stringers which carried the line's 30-pound Tee rails. Packed earth surrounded the entire conduit, holding it in position and supporting the wooden planking that formed the surface of the roadway between the slot and the rails.³³

The cable ran inside the wooden-walled tube, supported about every 40 feet by iron carrier pulleys, 11 inches in diameter. At the summits of grades 4-foot diameter crown pulleys supported the cable. Hallidie installed fixed depression pulleys where the grade of the road changed at the base of hills.

³⁰Hilton, p. 186.

³¹Scientific American, 65 (31 October 1891), p. 276.

³²Hallidie (1879), p. 64.
Smith, pp. 26, 34.

Henry Root, Personal History and Reminiscence with Personal Opinion on Contemporary Events 1845-1921 (San Francisco: 1921), p. 41.

³³Hallidie (1891), p. 7.

Mining and Scientific Press, 51 (18 July 1885), p. 34.

Scientific American, 32 (17 April 1875), p. 239.

These 7-inch diameter pulleys prevented the cable from rising to the top of the tube and damaging itself against the underside of the slot. The off-center design of the slot, combined with the "L" shaped foot of the grip, allowed the grip to pass these depression pulleys without striking them. The offset slot also afforded the cable some degree of protection from the water and debris that fell through the slot into the tube.³⁴

At each end of the line, in an underground vault set just beyond the tracks, sat an 8-foot diameter horizontal sheave that reversed the direction of the cable and sent it back through the conduit on the opposite side of the street. Each reversing sheave was mounted on a wheeled carriage riding on 10 feet of track. A chain connected the carriage to a 3300-pound counterweight suspended above a pit at the end of these tracks. The counterweight kept a constant tension upon the cable, compensating for the daily changes in its length resulting from variable loads on the line, changes in the weather, and other factors.³⁵

The line also provided facilities for reversing the direction of the dummies and trailers at each end of the line so that they could be dispatched along the opposite set of tracks. At the lower terminus on Kearny Street, two turntables, sitting side-by-side, reversed the cars. As a train approached the end of the line the crew uncoupled the cars, ran the dummy onto the first turntable, turned it 90 degrees by hand and rolled the car onto the second turntable. The crew then turned this second turntable another 90 degrees until the dummy faced back up the tracks. After pushing the car forward to a point where it could retake the cable, the crew repeated the operation with the trailer, recoupled the cars, and started them on the trip up the hill. At the upper, Leavenworth Street, terminus the cars passed over a turnout and were reversed using a single turntable.³⁶

The firm's powerhouse, a single-story wooden building measuring 68'x68', stood at the southwest corner of Clay and Leavenworth. The boilers, and steam engines for the line occupied the basement of the building, the winding machinery occupying a vault set 15 feet below the sidewalk. Horizontal deflecting sheaves, eight feet in diameter, diverted the cable from the conduit into the powerhouse, where it passed around an 8-foot diameter grip pulley designed and patented by Hallidie. Jaws set along the outer rim of the pulley alternately grasped and released the cable as the pulley revolved, supplying the adhesion necessary to drive the cable without letting it slip. From the grip pulley the cable passed around an 8-foot diameter tension sheave, back around the grip pulley, and then exited the powerhouse. It was diverted back into the conduit by another 8-foot diameter deflecting sheave. The tension sheave, which could be moved away from the grip pulley along a 60-foot bedplate, took up the long-term stretching that occurred in the cable.

³⁴Mining and Scientific Press, 51 (18 July 1885), p. 34.

³⁵Ibid.

Smith, p. 39.

³⁶Mining and Scientific Press, 51 (18 July 1885), p. 34.
Scientific American, 32 (17 April 1875), p. 239.

Since the cable passed over the bedplate twice, coming and going from the tension sheave, 120 feet of cable could be taken up.³⁷

Two 14"x28", 30hp horizontal steam engines, built by the Delameter Iron Works of New York, drove the winding machinery, supplied with steam by two 54"x16' boilers. Only one boiler and one engine operated at a time; the other set constituting a reserve. Pinion and spur gearing connected the engines to the winding machinery, which initially drove the cable at 4 mph, increased to 6 mph about 1877.³⁸

Hallidie determined to use a separate dummy and trailer for the Clay Street Hill Railroad in order to avoid wasting passenger space by placing the grip in the middle of the passenger car, and to afford the gripman a better view of the street. The Kimball Manufacturing Co., a car and carriage manufacturing firm based in San Francisco, built the 2200-pound dummies. In addition to standard shoe-type wheel brakes, each dummy also carried two other braking systems: a pedal-actuated brake that pressed a shoe against the rails, and an iron drag pole to prevent the car from slipping down a grade. As a last resort the grip could be raised against the top of the conduit as a crude emergency brake.³⁹

Although Hallidie is generally credited with designing the gripping mechanism used by the Clay Street Hill Railroad, and although the patents for the device are in his name, it appears that his draftsman, a German immigrant named William Eppelsheimer, actually worked out most of the mechanical problems involved in developing an operable gripping mechanism. In the articles he wrote for the British magazine Engineering, J. Bucknall Smith baldly stated that "this gripping apparatus was designed by Mr. Eppelsheimer."⁴⁰ It is interesting to note that the "Hallidie grip" saw service on only one other cable railroad. Meanwhile Eppelsheimer, having parted from Hallidie's employ, went on to become one of the most important engineers working in the field of cable traction.⁴¹

Hallidie and Eppelsheimer's grip consisted of a large hollow screw fastened to the floor of the dummy. This screw raised and lowered the grip mechanism within the tube by means of a hand wheel. An upper hand wheel worked a

³⁷Mining and Scientific Press, 51 (18 July 1885), p. 34.
Smith, pp. 37-39.

Mining and Scientific Press, 43 (3 September 1881), p. 156.

³⁸Mining and Scientific Press, 43 (3 September 1881), p. 156.
Hilton, p. 186.

Smith, pp. 36-37.

³⁹Mining and Scientific Press, 27 (27 September 1873), p. 200.

Mining and Scientific Press, 43 (3 September 1881), pp. 154, 156.

Hallidie (1891), p. 6.

⁴⁰Quoted in J. Bucknall Smith, A Treatise Upon Cable or Rope Traction as Applied to the Working of Street and Other Railways, 2nd ed., George W. Hilton ed. (Philadelphia: 1977), p. 197.

⁴¹Street Railway Journal, 11 (May 1895), p. 312.

threaded rod which ran through the hollow screw and operated the grip's jaws. These jaws, made of replaceable, soft cast iron, were supported by an "L" shaped foot carrying two sliding frames. By turning the upper hand wheel the gripman moved the frames, bringing the jaws into contact with the cable. A pair of grooved pulleys guided the cable between the jaws. H.J. Booth & Co.'s Union Iron Works built the first of these grips.

When a gripman desired to take the cable, which could be done at any point on the line, he opened the jaws with the upper hand wheel and lowered the grip over the cable using the lower hand wheel. Turning the upper wheel, he then closed the jaws until the guide pulleys contacted the cable, which could run freely over the pulleys without contacting the jaws. Tightening the upper wheel further brought the jaws gradually into contact with the cable, imparting motion to the dummy and its attached trailer.⁴²

During its first months of operation the line experienced a great deal of trouble with its dummies. The first cars behaved like "untamed steeds," kicking "up into the air, much to the alarm of the passengers." Repairing the damage these dummies daily inflicted upon the cable and the conduit often required all night during the first months of the line's operation.⁴³

When the firm initiated revenue service in September 1873 it employed two new dummies with large diameter wheels in the front and smaller ones in the rear. This design also proved unsatisfactory, exhibiting a disturbing tendency to rear up and jump the track, snapping the grip shank off in the conduit. The design of the dummy remained imperfect until early in 1875, almost a year and a half after the line's first trial.⁴⁴

Between August and October 1877 the firm extended its cable line .4 miles west on Clay to Van Ness Avenue. This construction utilized a modified yoke, weighing 380 pounds, which extended under the rails giving them added support. The conduit walls of the extension consisted of a light iron casing instead of the redwood planks used in the initial construction.⁴⁵

THE SUTTER STREET RAILROAD

Henry Casebolt's Sutter Street Railroad, incorporated out of the old City Front, Mission & Ocean Railroad in 1863, converted one of its unprofitable horsecar lines into San Francisco's second cable railway. Unlike the Clay Street Hill Railroad, the Sutter Street line ran over fairly level ground, its highest point being only 170 feet above the elevation of the lower terminus, and its steepest grade only 4%.⁴⁶

⁴²Mining and Scientific Press, 43 (3 September 1881), p. 155.
Smith, pp. 32-33.

Hallidie (1891), p. 6.
⁴³San Francisco Chronicle (3 April 1887).

⁴⁴Ibid.

⁴⁵Mining and Scientific Press, 51 (18 July 1885), p. 35.
Smith, p. 35.

San Francisco Chronicle (3 April 1887).

When Casebolt first expressed interest in converting one of his horsecar lines to cable in 1876, the Clay Street Hill Railroad's owners demanded a \$50,000 license fee for the use of their patents and a royalty on every grip used by the new line.⁴⁷ Outraged, Casebolt determined to design his own system, circumventing Hallidie's patents. Along with Asa Hovey, an employee of his car building firm, Casebolt designed the new cable line's physical plant.⁴⁸

The Traction Railroad Co., a holding company formed in 1875 for Hallidie's cable railway patents, instituted a suit against the Sutter Street Railroad. It claimed Casebolt had infringed upon Hallidie's patent for a dummy equipped with a grip working in an underground conduit. In 1880 the United States Circuit Court decided the case, ruling that Hallidie's prior use of this invention constituted only experimental use, and that a patent for a device not yet perfected could not be infringed. The Court ordered that the Sutter Street Railroad pay \$1 in damages to Hallidie.⁴⁹ This case was the first in a series of patent suits which characterized the cable traction industry throughout its history.

Conversion of the property from horsecar to cable operations took place in 1876, and on 27 January 1877 the line initiated revenue service, running from the intersection of Market and Sutter Streets west on Sutter to Larkin.⁵⁰ The change from horse to cable proved immediately successful. Ridership increased by 962,000 during the first year of operation.⁵¹

The success of this first line soon led the company to extend its cable operations. In late 1878 the firm opened the first crosstown line in the city, running from the powerhouse at Larkin and Bush south on Larkin to Hayes, in late 1878. Upon completion of this line the firm extended the main line west on Sutter to Central (now Presidio) Avenue. Opened in October 1879, this extension constituted the first movement of the cable lines into the sparsely developed section of the city known as the Western Addition, and brought the total amount of track operated by the firm to 2.5 miles on Sutter and .7 miles on Larkin.⁵²

Robert F. Morrow, a local real estate broker, bought out Casebolt in 1883, and began another expansion of the firm's cable lines. Morrow abandoned the powerhouse built at Sutter and Presidio in 1879 to drive the western end of the Sutter Street cable in favor of consolidating the firm's operations into a single powerhouse located at Sutter and Polk. He further extended the Larkin

⁴⁷San Francisco Chronicle (22 April 1917).

⁴⁸Street Railway Journal, 11 (May 1895), pp. 312, 315.

Langley's San Francisco Directory: 1875 (San Francisco: 1875).

⁴⁹Mining and Scientific Press, 40 (15 May 1880), p. 305.

⁵⁰Hilton, p. 187.

⁵¹Smith, p. 42.

⁵²Mining and Scientific Press, 43 (3 September 1881), p. 158.

line south, across Market and down 9th Street, to Mission. Work crews pressed this extension forward rapidly, hoping to cross Market in front of the tracks being laid by the Market Street Cable Railway, and thereby earn the advantage of seniority at the cable crossing. At any intersection where two cable roads crossed it became necessary to pass one cable over the other. In San Francisco the senior line, that firm which ran its tracks across the intersection first, invariably received the right to the more desirable upper position. To avoid striking the senior firm's cable the cars of the junior company had to drop the cable and retake it on the other side of the intersection. A legal action won the superior position at the crossing for the Market Street line, which possessed an earlier franchise, despite the efforts of Morrow's work crews, but the Larkin line held the superior position at all of its six other cable crossings.

The Sutter Street Railroad was renamed the Sutter Street Railway in 1887. That same year the firm extended its Larkin Street line farther south on 9th Street to Brannan. The following year construction crews pushed the cross-town line north on Polk from the powerhouse to Pacific Avenue, and then west out Pacific to Fillmore. The firm's financial success during is indicated by newspaper reports of earnings of between \$1500 and \$1700 per day in 1888.⁵³

The company rebuilt its entire system in 1890-91, continuing daily operation of the lines throughout the work. During this reconstruction the firm also extended the Pacific Avenue branch west from Fillmore to Divisadero. This addition gave the company a total of approximately six miles of cable track, as well as a mile of horsecar track that connected the Sutter and Market terminus with the Ferry Building.

The Sutter Street Railway became part of the United Railroads of San Francisco in 1902, in conjunction with two electric streetcar companies and the Market Street Railway. The new firm, controlled by eastern capitalists, operated the Sutter Street lines until 18 April 1906, when the earthquake and fire destroyed the powerhouse, most of the rolling stock, and portions of the conduit. United Railroads, intent upon cutting operating expenses to the bone in order to pay dividends on the firm's watered stock, converted all of the old Sutter Street Railway lines, with the exception of the Pacific Avenue route, to the more cost effective electric streetcars following the earthquake and fire. The Pacific Avenue line, operating out of a small powerhouse at the corner of Polk and Pacific, ran over grades beyond the capabilities of the period's electric streetcars. The survival of this last vestige of the Sutter Street Railroad, which went out of service on 29 November 1929, depended as much upon the objections of the wealthy residents along its route to "unsightly" overhead trolley lines as it did to the steepness of its grades.⁵⁴

THE TECHNOLOGY OF THE SUTTER STREET RAILROAD

The conduits used by the Sutter Street Railroad marked no real advance in cable traction technology from those used by Hallidie. Casebolt and Hovey

⁵³San Francisco Call (13 November 1888).

⁵⁴Hilton, pp. 187-88.

designed the original installation along the lines adopted by Hallidie on the Clay Street Hill Railroad, using large quantities of wood in order to keep construction costs at a minimum.⁵⁵ In 1879 the firm adopted a yoke of bent railroad iron, modeled after that designed by Henry Root in 1877 for the California Street Cable Railroad.⁵⁶ During the 1890-91 reconstruction of the line, new conduit was installed consisting of square wrought iron yokes embedded in Portland cement. This supported 46-pound rails set at a 5-foot gauge.⁵⁷

During the relocation of the powerhouse and extension of the Larkin Street line across Market in 1883, the firm built the first pull curves used in San Francisco. George Duncan invented the pull curve in 1881 for the Dunedin & Roslyn Tramway Co. of Dunedin, New Zealand.⁵⁸ Prior to this date existing technology restricted the operation of cable railroads to straight lines, except in special cases like that of San Francisco's Presidio & Ferries Railway, which in 1880 built a drift curve that allowed cars to release the cable and simply coast through the turn. This type of construction proved possible only where both streets involved descended as they approached the intersection.

Pull curves did not require specific street conditions but could be built at any intersection. This advantage over the drift curve resulted in their use for most of the turns built by cable railroads, despite their technical complexity, complicated construction and high cost. A series of horizontal pulleys guided the cable through the turn. A chafing bar, located above and just to the outside of these pulleys, prevented the grip from striking the pulleys and reduced the lateral strain on the grip shank exerted by the pull of the cable. As a car approached a pull curve a slight reverse curve positioned the grip, which pulled the cable up and away from its normal resting place against the pulleys, outside the chafing bar. The car proceeded around the turn at full grip, traveling at the speed of the cable.⁵⁹

The Sutter Street Railroad built six pull curves in conjunction with its 1883 expansion. A contemporary newspaper marvelled at the "bold curve" across Market Street which the cars would negotiate at the full speed of the cable. Ten 5-foot diameter pulleys guided the cable through the two curves at this intersection. At the other turns on the line, which had radii of between forty and fifty feet, 20-inch pulleys set three feet apart in concrete vaults carried the cable.⁶⁰

⁵⁵Smith, p. 42.

Root, p. 50.

⁵⁶Smith, p. 42.

Mining and Scientific Press, 51 (18 July 1885), p. 35.

⁵⁷Hilton, p. 187.

Street Railway Journal, 9 (June 1893), p. 393.

⁵⁸Hilton, p. 29.

⁵⁹Hilton, p. 117.

⁶⁰San Francisco Cable Car Days, 1880-89, microfilm in San Francisco Public Library Special Collections, p. 49.

The grip used by the Sutter Street Railroad represented that company's most important contribution to the industry. Hovey and T. Day, the chief engineers of the line, designed the grip, the first to take the cable from the side. Hallidie and Eppelsheimer's grip employed horizontally moving jaws which the cable entered from below, while Hovey and Day's used vertically moving jaws which took the cable from the side. The Sutter Street Railroad grip abandoned the screw-within-a-screw principle of Hallidie and Eppelsheimer, using instead a lever and quadrant arrangement to transfer the gripman's motion to the jaws.⁶¹

Hovey's first grip design, used a combination of rollers and brakes designed by Colonel W.H. Paine instead of jaws. Hovey tested this design on the Sutter Street line during the summer of 1876, but it quickly proved unsatisfactory. Instead of simply grasping the cable the rollers acted like the dies of a rolling mill, stretching and lengthening the cable, and ultimately breaking its wires. With heavily loaded cars the gripmen simply could not exert enough force upon the lever to prevent the cable from slipping through the rollers. Within six months Hovey and Day substituted jaws for the roller/brake combination, resolving the problem.⁶²

The Hovey and Day grip eliminated the need for turntables at the ends of the line. The gripman changed his position, pulling back on the lever eastbound and pushing it forward westbound. By inconveniencing the gripman in this manner it proved unnecessary to turn the dummies around at the termini, and the Sutter Street Railroad used simple switches to change its cars from one track to the other.⁶³

A side grip could not be lowered onto the cable like the bottom grip used on the Clay Street Hill Railroad. In order for the grip to take the cable a sheave in the conduit raised the cable to the level of the jaws and then, by means of a lateral deflection in the roadbed, the car and grip were moved onto the cable. The special construction required to move the cable into the jaws of the side grip made it less flexible than the bottom grip. Nevertheless, most lines preferred side grips because of their firmer hold upon the cable. Hovey and Day's side grip, built for a line without any curves, proved too lightly constructed for widespread use among cable traction companies. Even so, it became the progenitor of all future side grips, with its lever and quadrant arrangement being used on nearly every grip designed after 1877. In 1881 Hovey modified the side grip developed by Day and himself for use on the Chicago City Railway. This improved version of the Sutter Street grip became the most popular in the industry for several years.⁶⁴

⁶¹Smith, pp. 46-47.

⁶²Mining and Scientific Press, 52 (9 January, 1886), p. 24.

⁶³Hilton, p. 187.

⁶⁴Hilton, pp. 54-55, 235.

Mining and Scientific Press, 51 (18 July 1885), p. 38.

Charles Smallwood, Warren Edward Miller, and Don DeNevi, The Cable Car Book (Millbrae, California: 1980), p. 31.

The powerhouse of the Sutter Street Railroad also differed substantially from that of the Clay Street Hill Railroad. The line's first powerhouse stood at the corner of Bush and Larkin. Four steam engines, each with a 12-inch bore and a 24-inch stroke, drove the three cables run out of the building in 1881. A second powerhouse, built in 1879 at Sutter and Presidio, drove the western end of the Sutter Street cable, which was apparently too long to be operated solely out of the main powerhouse. Two 12"x24" steam engines, built by Prescott, Scott & Co's. Union Iron Works in San Francisco, drove this cable, which ran east from the powerhouse to Buchanan Street. Six boilers, all 16 feet long and varying in diameter from 48 to 54 inches, supplied the steam for the firm's engines in 1883. In 1881 the boilers consumed about twelve tons of coal in the course of nineteen and a half hours of daily operation.⁶⁵

The firm consolidated all its cable driving operations into a single powerhouse, located at the southeast corner of Polk and Sutter, in 1883. As was common with most of San Francisco's cable traction companies, the steam engines, boilers, and winding machinery occupied the building's basement, while the upper floors were used for car storage and repair and offices.⁶⁶

Two pairs of cross compound, non-condensing 500hp steam engines drove the winding machinery in the new powerhouse. The two pair of engines, only one of which operated at a time, ran at 61 rpm under 110 pounds of steam furnished by six 100hp tubular boilers built by the Union Iron Works. A rope drive transmitted power from the engines to a 25-foot diameter receiving pulley mounted on one of the main driving shafts, located 42 feet away across the powerhouse. A set of 12-foot diameter, helical-toothed gears connected this first shaft with a second.⁶⁷

Casebolt and Hovey developed a new driving system for the Sutter Street Railroad in order to avoid the patents held by Hallidie upon the system used by the Clay Street Hill Railroad. It is unclear whether or not the installation used in the 1883 powerhouse employed the same driving system used in the original powerhouse. In the 1883 installation two driving sheaves, also known as winders, drove each cable. The adhesion necessary to avoid slipping was obtained by wrapping the cable around the winders in a figure-eight pattern. The sheaves were mounted in line with each other on the two main shafts. In 1883 the Sutter Street Railroad used one set of 12-foot diameter winders and two sets measuring 10 feet 10 inches in diameter. Some controversy exists as to the winding system used by the Sutter Street Railroad. J. Bucknall Smith, a generally reliable source, claims that the firm used multiple wraps of the cable around a driving and an idler drum to provide the needed adhesion. George Hilton, the most distinguished modern historian of cable traction, accepts Smith's view, but several other contemporary

⁶⁵Hilton, p. 187.

Mining and Scientific Press, 43 (3 September 1881), p. 158.

Smith, p. 43.

⁶⁶Street Railway Journal, 9 (June 1893), p. 393.

⁶⁷Street Railway Journal 9 (June 1893), pp. 393-94.

sources indicate that the line used the figure-eight system described here, also known as the "American" drive system.⁶⁸

In 1883 the Sutter Street Railroad also used a different method for maintaining tension on the cable from that developed by Hallidie. From the winders the cable passed around a vertical tension sheave mounted on a wheeled carriage running on rails. Weights, hanging suspended over a pit and attached by a chain to each tension carriage, pulled the carriages back along the rails as the cable's length varied, keeping it taut.⁶⁹

The surviving descriptions of the Sutter Street Railroad's powerhouse all refer to the building erected in 1883, by which date several other cable traction firms were operating in San Francisco. The details of the firm's original installation are unknown, and it is unclear whether or not the company introduced the figure-eight drive system and moveable tension carriages used in the 1883 powerhouse. They may instead have been adopted after other lines demonstrated their practicality.

The physical plant of the Sutter Street Railroad, designed to circumvent the patents held by Andrew S. Hallidie, made several valuable contributions to cable traction technology. The most important of these contributions, Hovey and Day's side grip, differed radically from the device used by the Clay Street Hill Railroad, and introduced the lever and quadrant motion used on nearly every grip developed after this time. In 1883 the company introduced the pull curve, invented in New Zealand, to San Francisco, freeing the cable car from the restriction of straight line operations. It is unclear, however whether or not the Sutter Street Railroad made any substantial contribution to powerhouse technology, since no descriptions of the original drive system survive. The figure-eight drive system and moveable tension carriages used in the 1883 powerhouse represented marked advances in cable technology, but both appeared in the powerhouses of other firms prior to 1883; the role of the Sutter Street Railroad in pioneering their use is uncertain.

THE CALIFORNIA STREET CABLE RAILROAD

Leland Stanford, one of the "Big Four" entrepreneurs responsible for the construction of the Central Pacific Railroad, financed the construction of San Francisco's third cable line, the California Street Cable Railroad. Impressed

⁶⁸Sutter Street Railroad, Powerhouse Drawings, 1883, California Historical Society Library, San Francisco, California.

Street Railway Journal, 9 (June 1893), p. 394.

Transactions of the Technical Society of the Pacific Coast, vol. 1, num. 3 (July-September 1884), p. 110.

Mining and Scientific Press, 43 (3 September 1881), p. 35.

Hilton, p. 137.

Smith, pp. 45-46.

⁶⁹Mining and Scientific Press, 43 (3 September 1881), p. 35.

by the financial and technical success of Hallidie's Clay Street Hill Railroad, Stanford determined to build a route up California Street past the palatial mansion he had begun building in 1874.⁷⁰

Stanford, Mark Hopkins, another of the "Big Four," commission merchant Louis Sloss and several other prominent San Francisco businessmen, together incorporated the California Street Cable Railroad Co., capitalized at \$500,000. They received a franchise for their project on 14 July 1876. Most of the new firm's financial burdens fell on Stanford's shoulders. He purchased 4750 of the 5000 shares offered for sale, his associates, for the most part, lent only their names to the venture, fearful that it would never earn a profit through the collection of nickel fares. Stanford turned over responsibility for designing the line to Henry Root, an assistant engineer with the Central Pacific. Root, who became one of the most important engineers in the cable traction industry, estimated the cost to construct a cable route along California from Kearny to Fillmore at \$350,000.⁷¹

Hallidie demanded \$40,000 and final approval of the firm's construction plans for the rights to his patents. Stanford instructed Root to build the best road possible, claiming he would pay the costs if it infringed on Hallidie's patents. Despite Root's efforts to design the line without infringing upon these patents, Stanford was still forced to pay Hallidie \$30,000 in patent license fees.⁷²

Construction started on 5 July 1877. The route was to consist of 1.7 miles of narrow gauge (3-foot 6-inch) track running on both sides of California from Kearny Street, downtown, over Nob Hill to Fillmore Street in the Western Addition. The construction of the route, which cost \$430,000, took only five months, however problems with hot boxes in the engine bearings delayed the opening of the line until 10 April 1878. In its first day of operation the new route carried over 11,000 passengers.⁷³

In the spring of 1879 the firm extended its line from about 150 feet west of Fillmore to Presidio Avenue. Stanford wanted to pay for the construction of this short extension out of the line's earnings in order to avoid the incurrance of a debt or a lapse in the payment of dividends to the line's stockholders. Root designed the extension with inexpensive wooden yokes and a plank roadway in order to meet Stanford's desires. The extension opened for service on 30 May 1879, but its had to be completely rebuilt with concrete conduit and iron yokes in 1884.⁷⁴

⁷⁰Root, pp. 35, 61.

⁷¹Kahn, pp. 45, 48.

Root, p. 43.

⁷²Kahn, p. 49.

Root, pp. 42-43, 54.

⁷³Kahn, p. 48.

Root, p. 45.

San Francisco Morning Call (12 April 1878).

⁷⁴Hilton, p. 193.

Stanford sold his interest in the company to a syndicate headed by local banker Antoine Borel in 1884. In association with company president James B. Stetson, Borel inaugurated an extensive program of improvement and expansion. Installing new machinery in the powerhouse at Larkin and California in 1887 reduced the length of a trip from one end of the line to the other from 21.5 minutes to 18 minutes.⁷⁵

In 1889 Borel and Stetson laid plans for extending the mainline east on California from Kearny to Market, and for constructing a crosstown line running on O'Farrell, Jones, and Hyde Streets. Financing for these projects came from the sale of \$950,000 worth of 6% first mortgage bonds on the property. The half-mile long extension on California opened in 1890, and the O'Farrell-Jones-Hyde line, whose construction necessitated moving the company's powerhouse to the corner of California and Hyde, began service on 9 February 1891. The route was the last cable line built in San Francisco.⁷⁶

Unlike other cable lines that gave way to electric trolleys, California Cable operated profitably for many years. The steep grades over which it operated precluded conversion to electric trolleys. Following the earthquake and fire of April 1906, which destroyed all 52 of the company's cars, the firm rebuilt its entire system. This was accomplished despite the fact that the Fireman's Fund Insurance Co., which held a substantial share of the company's stock, was able to pay only about 50% of the \$177,000 of damage claims. Restoration of service following the earthquake and fire was not complete until July 1908, over two years after the disaster.⁷⁷

The large traction companies that dominated San Francisco's street railways in the twentieth century never acquired California Cable, which remained independent longer than any of the other cable traction companies in the city. The Market Street Railway, the largest traction company in San Francisco, obtained 1000 shares of stock in California Cable from the Fireman's Fund Insurance Co. in 1907, intending to eliminate the competing firm, but changed its plans and sold the stock in 1917.⁷⁸

The company proved financially rewarding to its stockholders. In 1940 the company president estimated that \$600 worth of dividends had been paid out on every share of company stock, which originally sold for \$60. In addition to

Root, p. 46.

⁷⁵Hilton, p. 193.

Kahn, p. 57.

San Francisco Morning Call (25 April 1887).

⁷⁶Root, p. 47.

Kahn, pp. 59-60.

Hilton, p. 193.

⁷⁷Hilton, p. 196.

Kahn, pp. 94-95.

San Francisco Morning Call (25 June 1906).

⁷⁸Hilton, p. 197.

Kahn, p. 110.

these dividends the firm had also completely retired the \$960,000 debt incurred during the construction of the O'Farrell-Jones-Hyde line in 1890-91.⁷⁹

The cancellation of the company's insurance policy following an adverse legal decision in 1951, forced the company to cease operations on 31 July 1951. The City and County of San Francisco purchased the entire property for a mere \$138,000, and reopened the lines on 13 January 1952. The high operating costs of the lines resulted in their running at a loss. In an effort to minimize these losses the city's Municipal Railway, which operated the property, discontinued the O'Farrell-Jones-Hyde line and cut the California line back from Presidio to Van Ness Avenue in May 1954.

In 1956-57 the city consolidated the old California Cable operations into its other cable powerhouse, the structure that still stands at Washington and Mason Streets. The California Street line reopened on 27 December 1957, nearly ten months after the resumption of service on a portion of the old Hyde Street line.

THE TECHNOLOGY OF THE CALIFORNIA STREET CABLE RAILROAD

Root contributed several major innovations to cable traction technology in his designs for the California Street Cable Railroad. Perhaps the most important of these involved the use of wrought iron yokes set in a concrete conduit to form a solid underground structure that enclosed the cable and supported the tracks. Root later admitted that while construction of the line did not constitute "an epoch making event in railroad transportation," it represented exactly that in terms of its "use of concrete construction," being "the first use of a structure made up of wrought metal buried in concrete and moulded to form in place."⁸⁰

Root salvaged discarded 60-pound Tee rails, had them bent to shape, and used them as yokes in the installation. Placed four feet apart, these yokes formed the basic shape of the conduit. Root used Rosendale cement, which was less expensive than imported Portland cement, to encase the yokes and form the sidewalls of the conduit. The cement was poured against a removable wooden form which preserved the shape of the 22-inch deep tube.⁸¹

The rails used by "Cal Cable" also represented an advance over the simple Tee rails generally employed by earlier lines. Root designed a 36.5-pound girder rail specially rolled for Cal Cable by the Cambria Iron Works of Johnstown Pennsylvania. The officials at Cambria initially refused to roll these rails, citing the expense involved in producing such a small special order, but relented when C.E. Huntington, one of Stanford's business partners in the Southern Pacific Railroad, threatened to take that firm's business elsewhere

⁷⁹Hilton, p. 197.

⁸⁰Root, p. 52.

⁸¹Smith, p. 49.

Root, pp. 46, 52.

Engineering News, 5 (4 April 1878), p. 105.

unless Root received his rails. Cambria produced the rails, which continued in service until 1909, for \$20,000, the only portion of the line's construction funds spent outside California.⁸² The paving between the narrow gauge rails consisted of basalt blocks grouted with Portland cement, a substantial improvement over the wooden planking used on the first cable lines.

The construction of the O'Farrell-Jones-Hyde line, supervised by C.H. Holmes, utilized the same basic type of conduit as that on California Street, except that riveted iron members were substituted for the worn Tee rails used as yokes in the original construction. The new line employed a centered slot, for use with the Eppelsheimer bottom grip, instead of the offset slot found on California Street. The Pacific Rolling Mills, a local firm in which Antoine Borel, principal owner of California Cable at the time of the extension, had extensive interests, rolled the slot and track rails used on the new line.⁸³

The firm's original powerhouse, a 70'x80', three-story structure standing on the southeast corner of California and Larkin, drove two cables, one running east to Kearny and the other west to Fillmore (later to Presidio). The engines and boilers occupied the building's basement, while the winding machinery sat in a 110'x30' vault located 31' underneath the center of California Street. A shaft 30' long, and 9.5" in diameter connected the engines to the winding machinery.⁸⁴

Wallace W. Hanscom's Hope Iron Works built the two vertical, marine-type steam engines that drove the cable.⁸⁵ In 1887 J. Bucknall Smith, an English civil engineer, criticized the engines, which cost over \$15,000, complaining that vertical engines were "scarcely suitable" for cable traction because the vibration of the engines could be "distinctly felt when travelling upon the line."⁸⁶ Three horizontal, multi-tubular boilers, built by the San Francisco-based firm of McAfee, Spiers & Co., supplied steam for the engines. Daily operation of these boilers in 1887 required nearly eight tons of coal.⁸⁷

⁸²Root, pp. 44, 46-47.

Kahn, p. 49.

⁸³Street Railway Journal, 9 (June 1893), p. 382.

Daily Alta Californian (21 July 1889).

⁸⁴Engineering News, 5 (4 April 1878), p. 106.

⁸⁵These engines measured 22"x36", and operated at 90rpm. The flywheel measured 9 feet in diameter and weighed 6 tons.

Mining and Scientific Press, (17 November 1877), p. 312.

⁸⁶Smith, p. 50.

Root, p. 45.

Mining and Scientific Press, (17 November 1877), p. 312.

Mining and Scientific Press, 51 (18 July 1885), p. 33.

⁸⁷These boilers measured 57"x12', and supplied an average of 70 pounds of steam for the engines.

Root, p. 45.

Smith, p. 49.

Engineering News, 5 (4 April 1878), p. 106.

The major contribution of the California Street Cable Railroad to powerhouse technology consisted of the placement of the winding machinery, built by William H. Birch's California Machine Works, in the vault under California. This eliminated one of the major sources of cable wear, their deflection and out of the powerhouse. The firm possibly introduced the figure-eight drive system, described for the Sutter Street Railroad, to the industry. It is impossible to verify whether or not credit for this major improvement in cable winding technology belongs to Root, because the nature of the original drive system of the Sutter Street road remains a mystery. The tension apparatus used by Root definitely did not mark an advance in cable technology. As early as 1887 Smith described it as "primitive, if not undesirable." It consisted of a reversing sheave, mounted on a truck loaded with scrap iron, which ran on rails set on a 30 degree slope. The weight of the scrap iron pulled the car, and its sheave, down the incline as the cable stretched, keeping it taut.⁸⁸

The firm replaced the gearing that connected the engine shaft with the drive shaft in 1887. The new gears increased the speed of the cable, and allowed cars to traverse the 26 blocks of the road in 21.5 instead of 18 minutes.⁸⁹

California Cable erected a new powerhouse at the southwest corner of California and Hyde in 1891, a move necessitated by the building of the O'Farrell-Jones-Hyde line. J.C.H. Stutt, a local engineer, designed the powerhouse installation and the Union Iron Works built the engines and other machinery.⁹⁰

The three-story brick powerhouse did not include the 22'x80' lot situated exactly at the southwest corner of the intersection. When the owner of this property discovered that a cable traction company wanted his land for a powerhouse he held out for the "stupendous figure" of \$870 a front foot, believing the company would be forced to meet his price. Instead, California Cable bought the rest of the property it desired for about \$325 a front foot, and simply built its powerhouse around the holdout, rendering his property virtually worthless.⁹¹

The steam engines installed in the new powerhouse marked the first use of triple expansion engines for cable traction. Three condensing engines, coupled to a single shaft, produced 500hp at 61rpm. Three 120hp Babcock & Wilcox boilers, only two of which operated at any one time, provided steam for the engines.⁹² The company replaced the steam engines with electric motors in

⁸⁸Root, p. 45.

Smith, pp. 50-51.

Engineering News, 5 (4 April 1878), p. 106.

⁸⁹San Francisco Morning Call (25 April 1887).

⁹⁰Root, p. 47.

⁹¹San Francisco Chronicle (2 November 1889).

⁹²The three engines had bores of 14, 20, and 34 inches, and a 54-inch stroke. Street Railway Journal, 9 (June 1893), pp. 379-80.

1916.⁹³

In place of gearing, the new powerplant utilized a rope drive to transmit power from a 7' 9" driving pinion on the engine shaft to a 25-foot diameter receiving pulley on the main drive shaft. The main shaft carried two sets of 12-foot diameter winding sheaves. Stutt designed a multiple-wrap driving system for the powerhouse, in which the cable passed around the driving and idler drums four or five times in order to acquire the adhesion needed to prevent the cable from slipping. Up to 300 feet of cable could be taken up by moving the idler drums along a 30-foot long bedplate as the cable stretched with use. Stutt developed an innovative, vertical tension run for the powerhouse, eliminating the need for the long tension runs used by other firms. Stutt's design employed an 8-foot diameter sheave, supported in a gate frame, which bore down on the cable with a weight of 1800 pounds. The weight of the sheave kept the cable taut during the variations incurred during daily operation.⁹⁴

California Cable used two different types of grips on its cars. On the California Street route the firm employed a side grip designed by Root, which operated in essentially the same manner as the Hovey and Day grip used on the Sutter Street Railroad. On the O'Farrell-Jones-Hyde line the need to drop the cable 22 times during the course of a round trip forced the company to adopt the Eppelsheimer bottom grip, first used by the Geary Street Park & Ocean Railroad in 1880. Retaking the cable with a bottom grip required only a small dip in the roadbed to bring the grip down onto the cable, a much simpler process than with side grips, which required a sheave to raise the cable to the level of the grip and a deflection of the track to move the grip onto the cable.⁹⁵

The line's first cars, built in 1877 by the Central Pacific Shops in Sacramento and the Kimball Manufacturing Co. in San Francisco, followed the period's standard practice of using a dummy and trailer. Root developed the combination car, which incorporated the dummy and trailer into a single vehicle, in 1883 for the Market Street Cable Railway. In 1888 Cal Cable adopted double-ended combination-type cars, also invented by Root. California Cable's 30-foot long, 11,200-pound cars, built by the John Hammond Car Co., could be operated from either end by means of duplicate grip levers linked to the grip by connecting rods. Unlike the Market Street cars, which had to be reversed on a turntable at the end of the line, the California-type cars simply passed through a switch onto the opposite track, where the gripman disconnected his grip lever, moved to the opposite end of the car, connected the grip lever at that end, and started on the return trip. This system enabled the company to continue using its termini switches, saving the expense of replacing them with turntables. These double-ended combination cars are still used on the California Street line of the existing San Francisco cable

⁹³San Francisco Chronicle (12 January 1916).

⁹⁴Street Railway Journal, 9 (June 1893), pp. 380-81.

⁹⁵Hilton, p. 66.

system.⁹⁶

In 1956-57 the San Francisco Municipal Railway rerouted the California Street cable into its powerhouse at Washington and Mason Streets and abandoned the old California Street Cable Railroad powerhouse. To incorporate the Cal Cable routes into its existing cable system MUNI converted the California Street line to a centered slot compatible with the Eppelsheimer bottom grip used on its other routes. Aside from this change and the rerouting of the cable required to bring it into the Washington and Mason Street powerhouse, most of the trackway of the former California Street Cable lines remains constructed in its original manner.

THE GEARY STREET PARK & OCEAN RAILROAD

Chartered in November 1878, the Geary Street Park & Ocean Railroad, San Francisco's fourth cable traction company, began temporary horsecar service over its routes in August 1879, initiating cable service in February 1880. The cable route ran from Market to Central (now Presidio) Avenue along Geary Street, one of the city's major east-west thoroughfares. Charles F. Crocker, the son of Central Pacific Railroad mogul Charles Crocker, provided most of the \$275,000 required for the construction of the line which encountered neither significant grades nor turns in its route.⁹⁷

The company proved financially successful from the outset, a fact which prompted the Market Street Cable Railway to purchase the firm in 1887. Market Street Cable operated the lines separately from its own system, retaining the original name. In 1892 the company extended the tracks west 1.9 miles to Golden Gate Park, simultaneously rebuilding the original line with more permanent conduit and standard gauge track. This conversion to standard gauge allowed the Market Street Cable Railway's cars to operate over the line, making possible through-service from the Ferry Building at the foot of Market to Golden Gate Park.⁹⁸

The city franchise for the route expired in November 1903, and for the next 10 years the company operated under a special arrangement which required it to turn over 10% (later reduced to 5%) of its earnings to the city.⁹⁹ The Geary Street Park & Ocean survived the earthquake and fire of April 1906 comparatively unscathed and resumed service on 22 June 1906.¹⁰⁰

The San Francisco Municipal Railway began erecting overhead streetcar wires along the route in June 1911. Cable operations ceased on 5 May 1912, and on 28 December 1912 the line reopened as the first of MUNI's streetcar

⁹⁶Kahn, p. 50.

Root, p. 48.

Smallwood, et.al., pp. 32, 35.

⁹⁷Kahn, p. 42.

Hilton, p. 201.

⁹⁸Hilton, p. 201.

⁹⁹Root, p. 81.

¹⁰⁰San Francisco Morning Call (21 June 1906).

operations.¹⁰¹

THE TECHNOLOGY OF THE GEARY STREET PARK & OCEAN RAILROAD

With the exception of the Eppelsheimer bottom grip, which is in use today on San Francisco's cable cars, the Geary Street Park & Ocean contributed little to the development of cable traction. William Eppelsheimer, Hallidie's draftsman and collaborator on the Clay Street Hill Railroad, designed the 5-foot gauge Geary Street Park & Ocean with yokes and other track elements of wood. The line operated over grades so slight that it did not require depression pulleys. Considering Root's extensive use of concrete during the construction of the California Street Cable Railroad three years previously, this use of wood amounted to a backward step in cable traction technology.¹⁰²

During the 1892 extension of the tracks to Golden Gate Park the company rebuilt its entire system, replacing its wooden yokes and conduit with cast iron yokes and concrete conduit and reducing the track gauge to the standard 4-foot 8.5-inch gauge. The company also rebuilt its slot rails to accommodate the Root side-grip used on the Market Street Cable Railway's cars.¹⁰³

The firm's powerhouse at the northeast corner of Geary and Buchanan, like much of the rest of the line, was built of wood. Two cables were operated from the building, driven by two horizontal, 250hp O'Neill-type steam engines, built by the Union Iron Works and supplied with steam by three steel boilers.¹⁰⁴ A rope drive connected an 8-foot diameter driving pinion on the engine shaft to a 20-foot diameter receiving pulley on the main shaft. The firm employed the multiple-wrap system to drive its cables.¹⁰⁵

The bottom grip designed for the Geary Street Park & Ocean represented the line's most important technical contribution to the industry. This grip used the standard lever and quadrant-type linkage to lower a plate which forced the grip's jaws against a pair of stationary rollers. These rollers forced the jaws inwards against the cable. This grip is presently the only type of grip used on the San Francisco cable railroad system. Market Street Cable replaced the Eppelsheimer grips with their own Root single-jaw side grips during the course of the 1892 reconstruction. The line continued to use the Root grips until it ceased operations in 1912.

¹⁰¹Hilton, p. 202.

¹⁰²Hilton, p. 201.

Smith, pp. 56-57.

Mining and Scientific Press, 51 (18 July 1885), p. 35.

¹⁰³Root, p. 79.

¹⁰⁴The steam engines had bores of 18 inches and strokes of 48 inches. The boilers, which supplied 65 pounds of steam, measured 52"x16'.

Smith, p. 60.

Street Railway Journal, 9 (June 1893), pp. 387-88.

Mining and Scientific Press, 43 (3 September 1881), p. 158.

¹⁰⁵Smith, p. 60.

Street Railway Journal, 9 (June 1893), pp. 387-88.

THE PRESIDIO & FERRIES RAILROAD

The Presidio & Ferries Railroad ran primarily on Union Street. It marked the first assault upon Russian Hill, just north of Nob Hill, by cable car. Hallidie served as president of the firm, organized in October 1878. Both Joseph Britton and James Moffitt, partners with Hallidie in the Clay Street Hill Railroad, invested in the new firm, as did Antoine Borel, who purchased Stanford's interests in the California Street Cable Railroad in 1884.¹⁰⁶

The firm's nearly two miles of 5-foot gauge track was built at a cost of \$190,000, and opened for revenue service on 23 October 1880. The line extended from Columbus and Montgomery, where a horsecar line linked the cable tracks to the Ferry Building, north on Columbus and west on Union to Steiner Street. From there a steam line continued out to the Presidio.¹⁰⁷

A group of local businessmen, including commission merchant George A. Newhall and real estate man A.D. Sharon, purchased the line from the Hallidie interests in the early 1890's, and placed J.C.H. Stutt in charge of two projects: the design of improvements to the existing system and a one-mile extension running along Union, Baker, and Lombard Streets to the Presidio. This extension opened for service in 1892.¹⁰⁸

The Presidio & Ferries Railroad suffered more damage than any other San Francisco cable route during the earthquake and fire in April 1906. After the disaster the owners of the company rebuilt the system as an electric streetcar line. This line continued in operation as a private company until 1913, when the San Francisco Municipal Railway purchased the firm.¹⁰⁹

THE TECHNOLOGY OF THE PRESIDIO & FERRIES RAILROAD

The Presidio & Ferries Railroad represented an extremely conservative approach to cable traction. Chief Engineer W.H. Milliken, who served as superintendent of the California Street Cable Railroad in 1878, designed the Presidio & Ferries as a broad-gauge adaptation of Hallidie's original technology.

Prior to 1880 most engineers considered cable cars incapable of negotiating any type of turn. At the intersection of Columbus and Union the Presidio & Ferries Railroad proved this assumption false by building the first curve ever constructed for a cable railroad. Both Union and Columbus ran downhill as they approached the intersection, from the west and south respectively, and Milliken took advantage of this fortunate circumstance in designing his curve. The cable passed around the turn on two 8-foot diameter horizontal sheaves, laid under the pavement beyond the line of the tracks. As cars

¹⁰⁶Kahn, p. 42.

San Francisco Cable Car Days: 1880-1889, p. 17. Microfilm located in Special Collections Department, San Francisco Public Library.

¹⁰⁷Kahn, p. 42.

Smith, p. 64.

Hilton, p. 205.

¹⁰⁸Hilton, pp. 205-06.

¹⁰⁹Ibid., p. 206.

approached the curve they released the cable and coasted through the 50-foot long turn under their own momentum, retaking the cable at the far side of the curve.¹¹⁰

While Milliken's curve, known as a "drift" or "let-go" curve, freed the cable car from the restriction of straight line operations, it did not prove completely successful from the start. Contemporary newspaper reports indicate that the cars often came to a stop before they completely rounded the turn, forcing the crews to push them forward to a point where the grip could retake the cable.¹¹¹

The Presidio & Ferries' powerhouse, located at the southeast corner of Union and Hyde, represented the industry's most extreme example of a firm placing its powerhouse at the highest point on the line. Locating the powerhouse at the line's summit lessened the strain of the cable on the terminal sheaves, but greatly increased the difficulty of hauling fuel and new cables to the building.

Milliken designed the firm's winding machinery to use the grip pulley drive system first employed by Hallidie. The Fulton Iron Works, operated by the firm of Hinckley, Spiers & Hayes, built the 300hp Corliss-type cross compound steam engine used to drive the winders and the three 150hp multi-tubular boilers that provided steam for the engines. Leather belting transmitted power from an 8-foot diameter pinion located on the engine shaft to a 25-foot diameter receiving pulley on the main shaft. The Golden State & Miners' Iron Works built these pulleys, as well as the two grip pulleys which drove the firm's two cables.¹¹²

Stutt made several changes in the powerhouse in 1892. He replaced the belt drive between the engine and main shafts with a cotton-rope drive, and he substituted multiple-wrap drivers and idlers for the Hallidie grip pulleys. In addition to these changes Stutt introduced a vertical-type tension apparatus similar to the one he designed in 1891 for the California Street Cable Railroad.¹¹³

In 1892, while engaged in designing the extension of the Presidio & Ferries tracks to the Presidio, Stutt decided that the Hallidie-type bottom grip used

¹¹⁰Smith, p. 65.

San Francisco Cable Car Days: 1880-1889, p. 13. Microfilm located in Special Collections, San Francisco Public Library.

¹¹¹San Francisco Cable Car Days: 1880-1889, p. 25. Microfilm located at Special Collections, San Francisco Public Library.

¹¹²Ibid., pp. 17, 19.

Street Railway Journal, 9 (June 1893), p. 393.

Smith, p. 66.

The cylinders of the firm's engine had bores of 18 and 24 inches with a 36-inch stroke. The engine operated at 72rpm under 80 pounds of steam supplied by the boilers, which measured 54"x16'.

¹¹³Street Railway Journal, 9 (June 1893), p. 392.

by the firm would not stand the side strain involved in negotiating the pull curve planned for the corner of Union and Baker. He developed a new type of bottom grip for the line in which the outer jaw remained stationary while the inner jaw moved against the cable. This unique design permitted Stutt to retain the road's off-center slot design.¹¹⁴

THE MARKET STREET CABLE RAILWAY

The origins of the Market Street Cable Railway date from a horsecar line established in 1867. On 22 August 1883 the company began operating its first cable line, known locally as the Southern Pacific line because its stockholders included Charles F. Crocker, Leland Stanford, and Henry Huntington. The firm eventually became the largest cable traction company in San Francisco, serving the Mission District, Golden Gate Park, and the Western Addition via five branch lines stemming from the main line on Market Street. The Market Street line travelled over the most important shopping street in the city, sharing the street with eight other street railroad companies, and providing the first direct cable car link to the Ferry Building at the foot of Market.¹¹⁵

The Valencia line, which ran on Valencia through the Mission District to 29th Street, opened at the same time as the mainline in August 1883. The Haight and McAllister lines began service later that same year, running west from Market to Golden Gate Park. A separate powerhouse drove the McAllister Street cable.¹¹⁶ By November 1885, while technically profitable, these three branch lines and the main line earned an average of only \$40 a day, \$75 on Sundays.¹¹⁷

Market Street Cable opened a fourth branch line, running west on Hayes Street from Market to Golden Gate Park, on 26 May 1886. This line, like the McAllister Street line, operated out of its own powerhouse. The firm's fifth and final branch, which ran south on Market to Castro and out Castro to 26th Street, opened in 1887. With the addition of these two lines the earnings of the company increased to an average of between \$12,500 and \$35,000 a month in 1888, and continued to increase at the rate of \$4000-5000 per quarter. After completing the Castro line the company's only construction activity involved two short extensions of the McAllister line in 1892 and 1902.¹¹⁸

In 1893 Leland Stanford, then president of Market Street Cable, arranged a merger which brought Market Street Cable, the Omnibus Railroad & Cable Co., the Ferries & Cliff House Railway, and two horsecar operations together under a single management, known as the Market Street Railway. The three cable

¹¹⁴Ibid.

Hilton, p. 61.

¹¹⁵Street Railway Journal, 9 (June 1893), p. 383.

Mining and Scientific Press, 47 (27 October 1883).

¹¹⁶Mining and Scientific Press, 47 (27 October 1883).

¹¹⁷Real Estate Circular, 2 (November 1885).

¹¹⁸Hilton, p. 207.

San Francisco Call (13 November 1888).

traction companies involved in the new company, Market Street Cable, Omnibus Railroad & Cable, and the Ferries & Cliff House, received \$13,500,000, \$3,000,000, and \$1,000,000 respectively in stock in the new firm.¹¹⁹

This new firm led the fight by the city's cable traction companies against the incursions of the electric streetcars. Horsecar operators desired conversion of their unprofitable lines to electric operations following the successful demonstration of electric traction by Frank Sprague in Richmond, Virginia in 1888. The large capital investment required for a cable railroad created a vested interest for the owners to strive to protect their expensive, inflexible systems against the incursions of competing electric lines. A propaganda campaign instituted by the Market Street Railway, and the other cable companies, attempted to convince the public of the dangers of overhead trolley lines. In an even more direct fashion, the cable interests bribed the Board of Supervisors into passing an ordinance prohibiting the use of overhead wires.¹²⁰

In 1902 a syndicate of eastern investors calling themselves the United Railroads of San Francisco, acquired ownership of the Market Street Railway, the Sutter Street Railway and two electric streetcar companies. The new firm, owned by the United Railroads Investment Company of San Francisco, a New Jersey holding company backed by the German investment banking firm of Ladenburg, Thalmann & Co., now controlled 260 of the 288 miles of street railroad operating in San Francisco.¹²¹ The firm paid an inflated price for the companies it bought, and then issued \$40,000,000 of watered stock to its owners, assuming that earnings would increase as the population of the city grew. To pay dividends on this vast amount of stock required that the firm rationalize its operations in order to increase earnings, and decrease its expenses in order to hold costs down.¹²²

Patrick Calhoun, president of the company, realized the need for efficient operation of the firm if he hoped to pay dividends on the watered stock. His plans called for the maintenance of labor costs at as low a level as possible and the conversion of unprofitable cable lines to electric operations. Several factors combined to prevent Calhoun from implementing this program. The need to avoid the stigma of an anti-union reputation in San Francisco, one of the nation's most unionized cities, forced Calhoun to accept the carmen's union, organized in 1901, and substantially increase the wages of carmen in 1902-3. The general public opposition to overhead trolley lines, favored by Calhoun because of their low construction and operating costs, and the provisions of certain street railway franchises restricting their operation to either cable or horsecar lines, blocked wholesale conversion of unprofitable lines to electric operation. Former mayor James D. Phelan and sugar magnate

¹¹⁹Judd Kahn, Imperial San Francisco: Politics and Planning in an American City, 1897-1906 (Lincoln, Nebraska: 1979), p. 110.

¹²⁰Kahn, pp. 111-12.

¹²¹Electric Railway Journal, 32 (5 September 1908), p. 575.

¹²²Kahn (1979), pp. 42, 112.

Walton Bean, Boss Reuf's San Francisco (Berkeley: 1972), pp. 109-110.

Rudolph Spreckels led the public opposition to overhead trolley lines, complaining bitterly against the ugliness of the poles and wires they required. Phelan and Spreckels went so far as to organize the Municipal Street Railways Co. in order to build an electric line utilizing a power source located in a conduit under the street as a demonstration of the practicality of that alternative to trolley operations. It is interesting to note that both men owned property along the Pacific Avenue route of the former Sutter Street Railway, one of the lines Calhoun wanted to convert to trolley operations.¹²³

The earthquake and fire of April 1906 presented Calhoun with the perfect opportunity to convert many of the United Railroad lines to electric streetcar operations. He and his subordinates supplied a \$200,000 bribe to the Board of Supervisors to guarantee passage of an ordinance permitting electrification of street railways regardless of original franchise stipulations. In order to gain public support for the conversion from cable to electric operations Calhoun claimed that United Railroad's cable lines required complete reconstruction, having suffered \$400,000 of damage during the earthquake and fire. Local newspapers accused the firm of delaying restoration of streetcar service in order to modernize its system, since insurance claims filed by the firm totaled only 9% of the amount of damages claimed publicly.¹²⁴ Following the earthquake and fire United Railroads retained only those cable lines which operated over grades too steep for electric streetcars. Of the original Market Street Cable Railway, only the Castro Street line south of 18th Street remained a cable route.¹²⁵

The Castro line continued as a cable operation until 6 April 1941, when diesel buses replaced the cars. During the intervening years, United Railroads survived a long, bloody strike by its carmen in 1907, declared bankruptcy in 1918, and reorganized as the second Market Street Railway in 1921. The firm operated under this name until closure of the Castro line in 1941. The other cable routes operated by United Railroads and Market Street Railway, built by earlier firms, continued in operation until 1944, when the San Francisco Municipal Railway bought out the Market Street company.¹²⁶

THE TECHNOLOGY OF THE MARKET STREET CABLE RAILWAY

Market Street Cable operated one of the busiest cable railroads in the entire United States, with cars departing the Ferry Building at 40 second intervals, reduced to 15 seconds during rush hours, and traveling along Market Street at 8mph. A complete trip from the Ferry Building to the end of the Valencia Street line required only 34 minutes, a fact facilitated by the easy route of

¹²³Bean, p. 111-13.

Kahn (1979), pp. 112-14.

¹²⁴Bean, p. 134.

¹²⁵Hilton, p. 210.

¹²⁶Hilton, p. 210.

the line, which lacked significant curvature except in the area of the main powerhouse at Market and Valencia, or grades greater than 12%, excluding the 18.4% grade on the Castro Street hill.¹²⁷

Henry Root designed the original Market Street Cable installation, using the bent Tee rail and concrete conduit construction he had developed for use on the California Street Cable Railroad. Root found it necessary to provide supporting structures for much of the conduit because of the swampy, unstable terrain over which much of the line passed. At 9-foot intervals all along the route work crews excavated to a depth of 10 feet and poured 16"x5' concrete piers to support the conduit. At the lower end of Market, where the line ran across land reclaimed from the bay, driven piles supported the piers. The line contained 9000 of these piers, and included 25,000 yokes, 1000 tons of slot rail, and 43,000 barrels of Portland cement.¹²⁸

Root designed the first beam-mounted depression pulleys used by a cable railroad for the Market Street line. Prior to this time all cable railroads used fixed depression pulleys and a grip with an "L" shaped foot which allowed the grip to pass the pulleys without striking them. Root's depression beam utilized a counterweighted, 6-foot-long horizontal arm which carried the pulleys. This beam swiveled or pivoted out of the way when struck by an approaching grip.¹²⁹

Root also developed a new means for negotiating turns for Market Street Cable. A 400-foot-long auxiliary cable, run off a 6-foot diameter sheave mounted directly on the engine shaft in the main powerhouse at Market and Valencia Streets, pulled the cars around the 55 degree curve from Valencia into Market at half the speed of the main cable. The auxiliary, which was guided around the 120-foot curve by fifteen side-bearing cone pulleys, filled the gap between the points where the Valencia and Market Street cables were deflected into the powerhouse. As cars approached the curve, a lateral deflection in the track allowed the gripman to release the Valencia cable. The car then coasted forward eight feet, picked up the auxiliary cable, and travelled through the turn. At the end of the curve the gripman released the auxiliary and grasped the Market Street cable. Cars running from Market into Valencia negotiated the turn as a simple drift curve.¹³⁰

Root's design for Market Street Cable's turntables also represented a departure from previous cable railroad practice. The 30-foot diameter, double-tracked turntable at the Ferry Building allowed cars to be run on and

¹²⁷Hilton, pp. 208, 210.

¹²⁸Mining and Scientific Press, 47 (27 October 1883), p.268.

Root, p. 54.

Smith, p. 69.

¹²⁹Mining and Scientific Press, 47 (27 October 1883), p. 268.

Smith, p. 71.

¹³⁰Mining and Scientific Press, 47 (27 October 1883), p. 268.

Smith, p. 71.

Mining and Scientific Press, 47 (27 October 1883), p. 269.

off the table at the same time, reducing the amount of time required to reverse the cars. The turntable dispatched cars onto three separate spur tracks, one for each of the company's branch lines in 1883, permitting cars to be dispatched up Market with minimum headway. Because of its size and weight this turntable could not be operated by hand, and Root relied upon the motion of the cable against a series of pulleys to turn the table at 1/5 the speed of the cable.¹³¹

Market Street Cable's main powerhouse occupied the southeast corner of Market and Valencia. The winding machinery, which utilized the figure-eight drive system, drove the Market, Valencia, Haight, and, later the Castro Street cables. The "American" system, as the figure-eight method was termed, required fewer wraps of the cables around the winding sheaves than the multiple-wrap method of driving, known as the "English" system. Many contemporary engineers felt that fewer wraps meant a longer cable life.¹³²

Two pairs of 400hp cross-compound, non-condensing, O'Neill-type steam engines, built by the Union Iron Works, drove the 12-foot diameter winding sheaves, transmitting their power to the main shaft by means of spur gearing. In 1887 these were the only cross-compound steam engines operating a cable railroad in San Francisco. Only one pair of engines operated at a time, the other set being kept in reserve. The engines consisted of four separate engines, linked together in pairs by connecting the bottoms of their cylinders. By 1893 the firm planned to divide the main engine shaft and run both pairs of engines simultaneously, each driving two cables, because of the increase in traffic upon the line. Six Babcock & Wilcox, horizontal, multi-tubular boilers (which the firm claimed were the first Babcock & Wilcox "type" boilers used on the Pacific Coast) supplied 120 pounds of steam to the engines.¹³³

For each cable Root employed standard, carriage-type tension devices, each with a suspended, 8000-pound counterweight. The tension runs extended 165 feet back from the winding machinery. These tension carriages closely resembled those now in use in the Washington and Mason Street powerhouse¹³⁴

The McAllister and Hayes Street powerhouses, constructed in 1882 and 1886 respectively, also used the figure-eight drive system. The Hayes Street powerhouse used a 300hp Corliss-type steam engine instead of the O'Neill-type engines used at the line's other powerhouses. Neither of these installations

¹³¹Smith, p. 73.

Mining and Scientific Press, 47 (27 October 1883), pp. 269-70.

¹³²Smith, p. 75.

Mining and Scientific Press, 47 (27 October 1883), p. 265.

¹³³The firm's steam engines measured 24"x34"x48". The boilers sat in three batteries, each generating 440hp.

Street Railway Journal, 9 (June 1893), p. 386.

Smith, p. 75.

Mining and Scientific Press, 47 (27 October 1883), p. 265.

¹³⁴Smith, p. 76.

Mining and Scientific Press, 47 (27 October 1883), p. 265.

significantly advanced the technology of cable traction.¹³⁵

In 1883 Root developed a combination-type car, which placed the grip and passengers on a single car instead of separate dummies and trailers, in order to permit conversion of Market Street Cable's old horse cars to cable operations. The Southern Pacific Shops in Sacramento built most of these cars, which ran on two, pivoted trucks, each equipped with both wheel and track brakes, similar to the trucks on standard railroad carriages. Prior to this time all cable cars ran on a single truck. Root's combination cars measured 30 feet in length and weighed 9600 pounds. The grips used by the line, manufactured by the Judson Iron Works and William H. Birch's California Machine Works, represented an improved version of the side-grip developed by Root for the California Street Cable Railroad. The grips were mounted on the forward truck of each car.¹³⁶

Market Street Cable operated more ancillary facilities than any of the other cable traction companies in San Francisco. A two-story, brick repair building located behind the main powerhouse included an iron working shop and brass foundry in addition to the usual carpentry, painting and repair facilities. In about 1886 the firm undertook the manufacture of its own cable, using a massive machine patented by Root. The firm abandoned the machine about 1893 because it could not produce "Lang lay" cable, an 1881 British invention which wrapped the strands and individual wires of the cable in the same direction. This technique resulted in the wires of the cable presenting a long continuous surface to the jaws of the grip, evenly distributing the pressure of the jaws. As Lang lay cables aged they tended to wear smooth, reducing the chance of broken wires and dangerous strands in the cable.¹³⁷

THE OMNIBUS RAILROAD & CABLE COMPANY

The Omnibus Railroad & Cable Co. operated 11.3 miles of cable railroad, the second largest, but least successful, cable system in San Francisco. The origins of Omnibus Railroad & Cable date back to one of the first transportation companies in the city, the Omnibus Railroad, a horsecar line organized in 1861. In the 1880's the firm's owner, Gustav Sutro, brother of mining entrepreneur Adolph Sutro, undertook a two-year study of the economies of cable and electric traction, and determined to replace the horsecar operations of his firm with a cable system. Unfortunately, Sutro opted for a technology that was to be outdated within five years, as electric streetcars reached a high level of reliability. Eleven years after the opening of the first Omnibus cable route in August 1889, all the firm's routes had been converted to electric operations or abandoned.¹³⁸

¹³⁵San Francisco Call (2 June 1886).

¹³⁶Mining and Scientific Press, 47 (27 October 1883), pp. 266-67.

¹³⁷Street Railway Journal, 9 (June 1893), pp. 386, 388-89.

Hilton, p. 77.

Root, p. 64.

Scientific American Supplement No. 565, 22 (30 October 1886), 9017.

¹³⁸Hilton, p. 229.

San Francisco Chronicle (5 March 1945).

The Omnibus cable system largely duplicated the existing routes of the Market Street Cable Railway, except that it ran on less heavily travelled and developed streets. The company never succeeded in generating any substantial traffic for its lines, and failed to ever pay a dividend to its stockholders. In August 1893, after less than four years of operation, the company closed its route on Howard Street, which had run from the powerhouse at 10th Street to 26th Street. Market Street Railway acquired the foundering company in October 1893, and began systematically converting the firm's lines to electric operations or completely eliminating them. The Oak and Ellis routes, operating out of a powerhouse at Oak and Broderick Streets, converted from cable to electric operations at the end of 1895. The mainline, running along Howard from the Ferry Building to the powerhouse at 10th Street, ceased operating altogether, along with the firm's Post Street route, at the close of 1899.¹³⁹

THE TECHNOLOGY OF THE OMNIBUS RAILROAD & CABLE COMPANY

G.W. Douglas served as engineer for the conversion of the firm's 5-foot gauge horsecar tracks to narrow gauge (3-foot 6-inch) cable tracks. The firm used a standard concrete conduit with iron yokes and 51-pound Tee rails. The seven turntables on the line operated in a manner similar to those designed by Root for the Market Street Cable Railway, taking their motion from the cable.¹⁴⁰

The main powerhouse at Howard and 10th Streets drove three cables, two running on Howard Street, one to the Ferry Building and one to 26th Street, and the Post Street cable, the most torturous route in the entire city. Two pair of 750hp cross-compound O'Neill-type steam engines, supplied with 75 pounds of steam by six 250hp elephant-type tubular boilers, drove the winding machinery, transmitting power from the engine shaft to the main shaft by means of a rope drive.¹⁴¹

The line utilized the multiple-wrap drive system, winding the cable five times around the drivers and idlers. The idlers could be moved 56 feet away from the drivers, along a bedplate, in order to take up slack in the cable. A standard, carriage-type tension arrangement compensated for the stretching of the cable, though the tension run measured only 10 feet in length. The normal stretching that occurred during the first days of a new cable's use was cut out after a week to ten days, allowing this shorter than usual tension run.¹⁴²

In 1893 Omnibus Railroad & Cable operated 143 combination-type cars, all built by the John Hammond Car Co. in San Francisco. The company used the

¹³⁹Hilton, p. 229.

¹⁴⁰Street Railway Journal, 12 (February 1896), p. 119.

¹⁴⁰Street Railway Journal, 9 (June 1893), p. 390.

¹⁴¹The line's engines measured 29"x44"x60", and operated at 59rpm. The rope drive ran 44 feet between an 8-foot diameter drive pinion and 24-foot diameter receiving pulley. Elephant boilers were so named because they might be built up to 50 feet in length.

¹⁴²Street Railway Journal, 9 (June 1893), p. 390.

¹⁴²Ibid.

Eppelsheimer bottom grip because it occupied the inferior position at all cable crossings.

THE FERRIES & CLIFF HOUSE RAILWAY

San Francisco's surviving cable car operations are an amalgam of portions of the California Street Cable Railroad and the Ferries & Cliff House Railway. While the California and Hyde Street lines, originally owned by Cal Cable, comprise the major share of the extant track, the Ferries & Cliff House Railway, San Francisco's seventh cable traction company, furnished the heart of the present system, the powerhouse at Washington and Mason Streets, and the Powell-Mason line.

In the mid-1880's Gustav Sutro, owner of the Omnibus Railroad & Cable Co., projected a line of steam dummies and cable cars, called the Park & Cliff House Railway, to run from downtown to the resort area being developed by his brother, mining entrepreneur Adolph Sutro, near Cliff House. Gustav sold his interest in the scheme before it moved beyond the planning stages to W.J. Adams, a sawmill owner and lumber dealer, who was actively promoting a north-south cable route, the Powell Street Railway, up Nob Hill. Adams combined the two projects into the Ferries & Cliff House Railway, although he continued to refer to the line as the Powell Street Railway.¹⁴³ Associated with Adams in the venture were William H. Martin and John Ballard, the contractors who built the Clay Street Hill Railroad, Thomas Magee, a real estate man and editor of the influential Real Estate Circular, and Henry H. Lynch, a real estate man who served as superintendent of the Ferries & Cliff House.¹⁴⁴

The Powell Street line served several important and populous areas of the city largely ignored by the other cable lines. From Powell and Market the Powell Street line, which opened on 28 March 1888, ran north through the fashionable shopping area surrounding Union Square, the elegant residential neighborhoods of Nob Hill, and the largely Italian North Beach section, to the waterfront at Bay and Taylor. The east-west line of the company, in service by 5 April 1888, ran on Washington and Jackson Streets, connecting with a steam line at Central (Presidio) Avenue and Sacramento which continued west to the Cliff House and Sutro Baths. Newspapers projected that this line would open up an "extensive and desirable" region which would furnish homesites for "thousands of... Artisans, merchants and clerks."¹⁴⁵

Operating these two lines out of a single powerhouse (located at the northwest corner of Washington and Mason Streets) resulted in one of the most complicated cable systems ever constructed. Howard C. Holmes, an engineer with a background in steam railroading, and the designer of the Oakland Cable Railway, drew up the plans for the Ferries & Cliff House system. He also supervised construction of the O'Farrell-Jones-Hyde extension to the

¹⁴³Smallwood, et. al. (1980), p. 41.

Hilton, p. 217.

¹⁴⁴Real Estate Circular, 22 (September 1887).
Street Railway Journal, 9 (June 1893), p. 395.

¹⁴⁵San Francisco Chronicle (19 December 1886).

California Street Cable Railroad in 1890, portions of which survive in the present system, and designed the Clay-Sacramento line of the Ferries & Cliff House in 1892.¹⁴⁶

In September 1887 Adams purchased the Clay Street Hill Railroad for \$200,000, considered by local observers to be a high price, in order to secure a route east from Powell to the Ferry Building. The Ferries & Cliff House franchise permitted the line to run along Jackson and Washington to the Ferry Building, but the Omnibus Co. operated horsecars, blocking the route, on both of these streets between Stockton and Montgomery. Any effort to obtain the right-of-way on these streets through the courts would have tied up the route for at least a year. The firm purchased the Clay Street Hill Railroad in order to acquire an uncontested route to the Ferry Building that would enable the cars to operate at a higher speed. Ferries & Cliff House operated the Clay Street route until 1891, when it tore up the original double-track installation and installed a new single set of tracks. After this reconstruction the firm routed cars westbound on Clay to Larkin, crossed over a block to Sacramento, and continued west on Sacramento to Central Avenue. The return to the Ferry Building was entirely on Sacramento. Holmes supervised construction of the 3.4-mile route, which was completed in 1892 in only seventy days. This work included construction of six cable crossings and the extremely complicated cable and trackwork in the vicinity of the powerhouse.¹⁴⁷

The Ferries & Cliff House Railway incurred a \$1,900,000 debt constructing its eight miles of cable road. Historian George Hilton believes the firm had no future as an independent operation, a statement supported by the October 1893 absorption of the firm into the Market Street Railway.¹⁴⁸ The merger resulted in the construction of the one major extension to the former Ferries & Cliff House system. In the fall of 1893 the Market Street Railway undertook to extend the Sacramento line to the site of the Midwinter Fair planned for 1894 at Golden Gate Park. The 1.9-mile long extension, running on Lake Street and 6th Avenue to Golden Gate Park, opened on 15 February 1894. The Market Street Railway's McAllister Street powerhouse drove the 30,500-foot cable used for the extension.

Along with the rest of the Market Street Railway, the Ferries & Cliff House system became part of the United Railroads of San Francisco in 1902. United Railroads discontinued the Sacramento Street cable west of Walnut in 1904, shifting the traffic to their existing electric streetcars.

The earthquake and fire of April 1906 utterly destroyed the powerhouse at Washington and Mason and also ruined much of the line's rolling stock. However, because the period's electric cars could not negotiate the grades they encountered, all three cable lines resumed operation, though in truncated

¹⁴⁶Root, p. 47.

Hilton, p. 217.

¹⁴⁷Hilton, p. 217.

Real Estate Circular, 22 (September 1887).

¹⁴⁸Hilton, p. 220.

form, after the disaster. United Railroads fully restored the Powell-Mason line, cut the Washington-Jackson line back from Central Avenue to Steiner, and cut the Clay-Sacramento line from 6th Avenue to Fillmore. The firm also changed the Clay-Sacramento line so that eastbound cars ran on Clay and westbound cars on Sacramento. This avoided a one block uphill walk for patrons of the Fairmont Hotel who arrived in the city by ferry, and permitted the line to operate with the prevailing traffic flow at the Ferry Building.¹⁴⁹

The former Ferries & Cliff House system became part of the second Market Street Railway in 1921, following the 1918 bankruptcy of United Railroads. The reduction in ferry traffic and the introduction of diesel buses led to the elimination of the Clay-Sacramento line on 15 February 1942.

The San Francisco Municipal Railway acquired the old Ferries & Cliff House lines along with the rest of the Market Street Railway in 1944. Mayor Roger Lapham proposed eliminating the remaining cable mileage in January 1947, but public opposition led by the Citizens' Committee to Save the Cable Cars, founded by Friedel Klussman, prevented immediate conversion of the Powell and Sacramento lines to diesel buses. In 1954 Save the Cable Cars finally secured passage of a city charter amendment prohibiting elimination of any of the surviving cable car routes. Between the campaign's start in 1947 and the final victory in seven years later over 50% of the city's cable car lines were removed.¹⁵⁰

In 1952 the city's Municipal Railway (MUNI) acquired the California Street Cable Railroad lines, incorporating these operations into the Washington and Mason Street powerhouse in 1956-57. The city consolidated its operations by incorporating portions of the O'Farrell-Jones-Hyde line of Cal Cable into the present Hyde Street line. Construction on this work began in 1954, and the new route opened in April 1957. The lines operating at the present time remain unchanged from those in service in April 1957.

THE TECHNOLOGY OF THE FERRIES & CLIFF HOUSE RAILWAY

For the Ferries & Cliff House Railway Howard C. Holmes designed one of the most complex cable systems ever built. He placed the tension runs in the powerhouse on a diagonal because of a lack of space in the building, and directed the cables onto the street through a vault under the building's southeast corner. In order to get the cables in and out of the powerhouse, and to their streets, Holmes relied on several slightly bizarre routes and made extensive use of blind conduit, a tunnel without a slot connecting it to the surface. The west end of the Clay-Sacramento cable, for example, passed through two blocks of blind conduit running east on Washington from the powerhouse to Stockton, and then through another two blocks of blind conduit running south on Stockton from Washington before issuing onto Sacramento. The cable returned to the powerhouse through a block of blind conduit under Mason Street between Clay and Washington.

¹⁴⁹Ibid.

¹⁵⁰Save the Cable Cars File, San Francisco Room, San Francisco Public Library.

The complexity of the trackwork around the powerhouse required several novel elements in cable traction technology. On both Washington and Jackson Streets, for the block between Powell and Mason, Holmes designed a roadbed that used two separate conduits, or at least tubes for two separate cables, and only three track rails, the cars sharing the center rail. Cars turning from Mason onto Jackson negotiated the intersection by means of a turntable instead of a pull curve. Holmes adopted a variation of Root's iron and concrete conduit for the entire line, embedding the wrought iron yokes in a brick and earth-fill conduit. Although these arrangements succeeded in moving the cars and cables through the area of the powerhouse, their complexity marked no real advance in cable technology.¹⁵¹

The Mahoney Bros., a San Francisco car-building firm owned by Jeremiah and John Mahoney, received the contract to build the company's single-ended cable cars. The Mahoneys subcontracted much of the actual construction of the car bodies to the Burham-Standeford Co.'s Oakland Planing Mills. P.H. McGrew, an Oakland blacksmith, fabricated the cars' trucks and ironwork at a cost of \$304 per car.¹⁵²

Holmes adopted the Eppelsheimer bottom grip for use on the line, primarily because a round trip on the Powell line required the gripman to drop the cable 14 times at cable crossings and once for a drift curve, a situation which virtually forced the use of a bottom grip.¹⁵³

The company acquired the powerhouse site at Washington and Mason Streets in October 1886. A stable occupied the site previous to its purchase by the cable traction company.¹⁵⁴ Work began on the foundations by late February 1887, and the company let contracts for the building and machinery in March.¹⁵⁵ By late June 1887 workers had completed the walls of the three-story building up to the level of the second floor. The square brick building measured 137.5'x137.5'. The firm's boilers, engines, and winding machinery occupied the first floor, the upper two floors being devoted to car repair and storage tracks and company offices.

Risdon Iron Works, in San Francisco, built the two original steam engines used

¹⁵¹Street Railway Journal, 9 (June 1893), p. 395.

¹⁵²San Francisco Chronicle (16 July 1951).

¹⁵³Hilton, p. 217.

The method of construction used at cable crossings is described in a contemporary newspaper account of the building of the Powell line's crossings at Sutter and Geary. The area around the existing tracks was excavated and the tracks braced with wooden beams. The entire crossing assembly was riveted together on rollers above the crossing. A derrick hoisted the pre-fabricated crossing into place at night, and wooden beams held the whole assembly in place until completion of the paving. San Francisco Chronicle (19 September 1887).

¹⁵⁴Real Estate Circular, 21 (October 1886).

¹⁵⁵San Francisco Chronicle (23 February 1887).

San Francisco Chronicle (18 March 1887).

by the firm, reported by the San Francisco Chronicle to be 600hp Corliss-type engines. Six 16-foot long horizontal, tubular boilers, located in fire pits along the south wall of the building, provided steam for the engines.¹⁵⁶

For unknown reasons the company replaced these engines in 1889 with two 450hp, horizontal, non-condensing Thompson-type steam engines built by the Golden State & Miners' Iron Works of San Francisco. In 1891 the firm installed two 450hp, vertical, non-condensing Corliss-type steam engines built by John B. Clot and Constant Meese's San Francisco-based Reliance Machine Works. These vertical engines straddled the winding machinery. The company scrapped its original boilers in 1894, replacing them with eight 115hp elephant boilers, built by the Union Iron Works. Arranged in pairs in four batteries, these boilers stood against the west wall of the building, providing 125 pounds of steam to the engines.¹⁵⁷

The two pairs of engines coupled to separate shafts. Either set of engines and shafting could be used to drive the winding machinery. The shaft for the vertical engines measured 14 inches in diameter and was 26 feet long. A 4-foot 6-inch diameter, helical-toothed drive pinion transmitted the power to a 14-foot diameter bull gear mounted on the first drive shaft. This bull gear meshed with an identical gear mounted on the second drive shaft. The flywheel for the vertical engine measured 15 feet in diameter and weighed 25 tons.¹⁵⁸

Each of the horizontal engines coupled to one end of an 18-inch diameter shaft carrying another 4-foot 6-inch diameter drive pinion. An eccentric arrangement allowed either drive pinion to be thrown into position against the bull gears, permitting either engine to operate the winding machinery.¹⁵⁹

In 1893 the Ferries and Cliff House used the figure-eight system to drive the five cables operated out of the powerhouse. Each of the six 14-foot diameter winding sheaves carried two grooves, instead of the usual one, on its rim. Two of the sets of winding sheaves drove two cables each while the third set drove only a single cable, wrapped twice around the sheaves in order to gain additional adhesion. The cables passed from the winding sheaves to standard movable tension carriages, patterned on those designed by Henry Root for the California Street Cable Railroad and the Market Street Cable Railway. In the case of the winders driving two cables, the cables passed to two separate tension carriages, positioned one behind the other on the same set of

¹⁵⁶The steam engines had a 22-inch bore and an 18-inch stroke.

Real Estate Circular, 21 (October 1886).

¹⁵⁷The horizontal engines had a 24-inch bore and a 48-inch stroke. They operated at 65rpm. The vertical engines, which displayed greater efficiency in their consumption of coal, had a 25-inch stroke, a 44-inch stroke, and operated at 73rpm. The elephant boilers measured 56 inches in diameter and 16 feet long.

United Railroads of San Francisco, Statement, January 1905. Original in possession of Charles Smallwood, San Francisco.

¹⁵⁸Street Railway Journal, 9 (June 1893), p. 395.

¹⁵⁹Ibid.

tracks.¹⁶⁰

In 1902, when United Railroads of San Francisco took over the system, the firm erected a three-story brick annex attached to the north wall of the powerhouse and car barn, increasing the structure's car storage and repair facilities. Like the main building the annex was constructed on a slope, so that the second floor on the east side of the building became the first floor on the west side. The annex measured 46'x131.5' on the ground floor, its upper two stories extended west another 50' to the property line. Portions of the west wall of the annex are still evident in the retaining wall along the west side of the present property.¹⁶¹

In 1905 the first floor of the annex contained four sets of east-west oriented tracks, connected by a transfer table at the west end of the building, and a large car elevator used to lift the cars to the repair and storage areas on the second and third floors. Cable cars entered the annex by means of a spur track off the Mason Street line. On the second floor of the building a car could be run off the elevator onto a transfer table along the west side of the floor. This transfer table served fifteen sets of east-west oriented repair and storage tracks. A 24-foot diameter turntable sat in the southwest corner of the floor. This turntable moved cars from the transfer table onto the street through a large doorway cut into the south facade of the building just east of the smokestack.

The third floor of the building contained more repair and storage tracks. Cars were pushed off the elevator onto a transfer table that served four sets of east-west oriented tracks in the annex and a spur track leading to another transfer table oriented along the east-west axis of the main building. This second transfer table served ten sets of north-south oriented tracks in the main building.¹⁶²

The earthquake and fire of April 1906 almost completely destroyed the powerhouse. United Railroads utilized the surviving footings and foundations during construction of the present building, erected during 1907 and 1908 at a cost of \$75,000.¹⁶³ This two-story brick structure, which stands 48 feet tall, measures 137.5'x180.5' in plan. The brick walls are 21 inches thick at the first floor level, tapering to 17 inches at the second floor. Every sixth course of bricks in the exterior walls is a header course. The concrete slab ground floor has several pits or vaults for the winding machinery, tension runs, deflecting sheaves, boilers and fuel storage. The second floor, supported on steel columns and beams, stands 22 feet above the ground floor and consists of wooden planking. Wooden posts on the second floor support a wooden trussed roof in the main portion of the building. In the "annex" the

¹⁶⁰Ibid.

¹⁶¹United Railroads of San Francisco, Drawings C-1476-78 (28 April 1905). Blueprints in possession of Charles Smallwood, San Francisco.

¹⁶²Ibid.

¹⁶³San Francisco, Department of Public Works, Building Permit No. 6881 (18 December 1906).

roof rests on steel columns and beams. During reconstruction of the building the smokestack, which partially collapsed during the earthquake, was reduced from its original 185-foot height to 89 feet.¹⁶⁴

United Railroads redesigned the car handling facilities of the building during its reconstruction. A 15,000-pound capacity Otis Elevator Co. car elevator was installed in the "annex" portion of the building to permit transfers of cars between the two floors and to facilitate the movement of the 300-pound grips from the car storage area on the second floor to the grip repair facilities on the first. The new "annex" does not extend back to the property line on its west side, like the original annex, but stops some fifty feet short. A set of tracks laid in this space connects the mainline on Jackson Street to a large turntable located in the yard behind the powerhouse. This turntable connects to the thirteen sets of repair and storage tracks on the building's second floor. The entire west facade of the building is open, permitting cars to be rolled easily onto and off of these tracks.

Incoming cars release the cable on Jackson, above a switch connecting the mainline and the yard spur, and roll backwards into the yard under their own momentum. Stopping on the turntable, the cars are then spotted onto the desired track in the car barn. Outbound cars, are pushed onto the turntable from their storage tracks and sent onto Washington Street by means of another spur connecting the turntable with the street.

The United Railroads rebuilt the steam engines, boilers, and winding machinery damaged by the earthquake and fire and used them when operation of the Powell Street line was renewed in January 1907. Temporary wooden sheds protected the equipment from the weather during reconstruction of the building.¹⁶⁵

In 1912 United Railroads removed the horizontal steam engines and installed a 600hp, 400rpm General Electric induction motor, connected to the main shaft by a chain and sprocket drive which drove the shaft at about 75rpm. The building received at least a portion of its electricity through a feeder line taken off the company's Kearny Street trolley line. This line entered the building through the circular conduits still evident above the door at the south end of the Mason Street facade. In conjunction with the electrification of the winding machinery the firm installed a 275kw substation in the powerhouse. Transformers stepped the station's voltage down from 11,000 to 440 volts for use by the motor.¹⁶⁶

The vertical steam engines remained in the building as a backup system to the electric motor until 1924. In August 1926 the company replaced the vertical engines with the present No. 2 Motor and Reduction Gear, relegating the 1912 installation to a backup status. Motor No. 2 is a 750hp General Electric induction motor operating at 712rpm. It is connected to a single reduction gear, manufactured by the Falk Corporation of Milwaukee, which drives the main

¹⁶⁴Ibid.

¹⁶⁵San Francisco Call (12 January 1907).

¹⁶⁶San Francisco Municipal Railway, Drawing 1109 (21 March 1911).

shaft at 78rpm. Helical-toothed gears transmit the power from the main shaft to the driving shafts.

Incorporation of the California Street Cable Railroad operations into the powerhouse in 1956-57 necessitated a major renovation of the building's mechanical plant. In 1958 the present No. 1 Motor and Reduction Gear replaced the 1912 motor installation. Motor No. 1 is a 700hp Fairbanks Morse induction motor operating at 705rpm. A reduction gear, manufactured by the Western Gear Co. of Los Angeles, transmits the power to the main shaft at 78rpm. The original switchboard, transformers and substation were replaced at this time by the present unit, manufactured by the ITC Circuit Breaker Co. This unit rests on a concrete slab poured over the top of the old boiler pits. The 1958 renovation also involved the installation of the existing 30-ton capacity overhead crane and a new cable rewinder, both used when replacing a worn cable with a new one.

In 1960 Muni closed off the old boiler spaces along the west wall of the first floor with partitions, creating offices and workers' facilities. A major renovation of the winding machinery, costing \$277,000 took place during 1965. VOEST, an Austrian firm, built the gears and winding sheaves presently in use. The helical-toothed pinion gear measures 42 inches in diameter and meshes with two inter-meshed 14-foot diameter bull gears that drive the shafts carrying the winding sheaves at 19.2rpm. There are six 14-foot diameter winding sheaves, three mounted on each of the driving shafts. The figure-eight drive system and Root-type, moveable tension carriages remain in use. Replacing the winders and gearing required 28 days of work.¹⁶⁷

A machine shop occupies the space along the east wall of the powerhouse's first floor. Until about 1970 all of the shop's equipment operated off belt drives powered by small electric motors. Five of the machine tools in the shop date from c.1900 and continue to be belt-driven. The other major machine tools in the shop date from c.1970.

The last major alteration to the powerhouse, the installation of the mezzanine floor in the southern half of the building, was made in 1967. This floor is used as a museum and also provides a viewing platform from which to observe the winding machinery. The southernmost window on the Mason Street facade was converted into a doorway to provide access to this level. Various "period" embellishments, such as a decorative canopy, flower boxes, antique-styled signs, and replicas of gas lamps, date from this alteration of the building and are intended to convey the historical nature of the structure.

The street systems of the old Ferries & Cliff House system have changed relatively little over the years. Bringing the California Cable lines into the system in 1956-57 required rebuilding some track, constructing several new turns, and building a new turntable at the northern terminus of the Hyde Street line. MUNI combined the Powell and Mason cables into a single line in 1977, hoping to economize their operations. However, the new cable, 18,200

¹⁶⁷San Francisco Chronicle (14 April 1965).

feet in length, is subjected to a greater number of curves which tend to curtail its useful life. MUNI engineers designed all-steel depression beams in 1980, which substituted a universal joint for the counterweight used on the old depression beams. These new beams replaced all the old style depression beams, except those on California Street. They require less maintenance and are more reliable than the old-style beams.

CONCLUSION

The existing San Francisco cable railway system incorporates elements from all periods of cable traction. Many yokes, and much of the conduit, date from the 1870's or 1880's. Portions of the powerhouse are associated with the heyday of cable traction during the late 1880's and early 1890's, while most of the structure reflects the rebuilding of the city following the earthquake and fire in April 1906. The functioning 1926 motor installation is a reminder of the substitution of electricity for steam in cable traction, as are the now-covered boiler pits, unused coal storage bins and smokestack at the powerhouse. The truncated California Street line, ending abruptly at Van Ness Avenue instead of continuing west to Central Avenue, symbolizes the hard times faced by cable traction companies in the 1930's and 1940's, when diesel bus lines supplanted most of the surviving cable mileage. The meandering Powell-Hyde line, with its delightfully illogical route and bravely independent turn across traffic at Beach and Hyde Streets, illustrates the inherent inflexibility of cable traction. Survival of the cable cars in the automobile age requires that the public tolerate this inflexibility, for without such tolerance the last cable lines would have closed years ago.

The motors and rebuilt winding machinery in the powerhouse demonstrate the literal linkages between old and new in the system. Motors No. 1 and 2 are electric motors separated in time by thirty years. They drive gears and sheaves manufactured in 1965 but modeled on equipment built eighty years previously. The juxtapositions between old and new are even more evident on the streets, where depression beams designed in 1980 are mounted in 100-year old yokes and conduit, and where cars rebuilt from the trucks up within the last five years carry roofs built in the 1890's.

Operating this antiquated technology, a technology characterized by high capital costs, inflexibility, and ponderously heavy construction, in a modern American city borders on the insane, yet the desire of San Franciscans to preserve this unique and - in its own fashion - workable transportation system dates back at least forty years. In light of the strength of this commitment to the cable cars it is only fitting that this clumsy, inflexible, irrational system operate out of a powerhouse once considered one of the most complex in the industry.

URBAN DEVELOPMENT AND CABLE TRACTION

Historians, journalists, and real estate entrepreneurs have long claimed that the development of San Francisco's cable railway lines significantly boosted the city's growth. According to these writers new residential neighborhoods sprang up almost instantaneously along cable routes and the commercial sectors

of downtown reaped benefits from the increased mobility which Andrew S. Hallidie's invention brought to the city's population. Historians have subjected many other communities in which cable railroads operated to intensive studies in an attempt to quantify the exact nature of the impact of the transportation system upon the city.¹⁶⁸ Surprisingly, no such study exists for San Francisco, the city where cable traction first operated successfully on a commercial basis. Nevertheless, the evidence supports the notion that the cable railways of San Francisco aided and hastened development in certain sectors of the city, notably the Mission District and the Western Addition, and in so doing helped transform the spatial organization and structure of the city.

Originally one goal of this study was a route by route, block by block examination of the impact of the cable car upon patterns of growth and development in San Francisco. However, the sources for such a rigorous analysis no longer exist. The earthquake and fire of April 1906 destroyed all records of property transactions, real estate assessments, and building permits, as well as most of the company records for the cable traction companies. Block books for San Francisco have not survived prior to 1895, and the city directories for this period contain little information pertinent to these questions. Census data suggest broad population flows within the city, but because of the manner in which the ward boundaries were drawn and the long periods between censuses it is difficult to trace these flows to such specific areas as the Mission or the Western Addition. Historical maps are similarly scarce and unyielding. The earliest surviving Sanborn Fire Insurance maps date from 1885, making it impossible to use these valuable sources to determine growth and development patterns in the crucial first initial years of cable car operations prior to 1885.

Despite these many obstacles, it was possible to locate several important sources of information. Many of these are highly impressionistic in nature; such as boosters' accounts in local newspapers, popular magazines, and trade journals. These sources concentrate on the business-related matters concerning the lines, relate humorous anecdotal material, or chronicle accidents involving cable cars. One journal, the San Francisco Real Estate Circular, provided a wealth of data about land values, housing starts, and the effects of the cable lines upon the city. It should be noted, however, that Thomas McGee, the editor of the Circular, served on the board of directors of the Ferries & Cliff House Railway, giving him a vested interest to show that the cable lines positively influenced the city's prosperity. Nevertheless the Circular proved to be a very valuable resource.

For the purposes of this report "urban development" has been limited to the concept of the physical expansion of the city. This involves the growth of street systems, residential housing districts, parks and other recreational

¹⁶⁸See for example: Sam Bass Warner, Streetcar Suburbs (Cambridge: 1962). Robert Carson, A Micro Historical and Economic Study of the Rise and Decline of Street Railroads in Syracuse, New York, 1860-1941 (Washington: 1977). G.A. O'Geran, A History of the Detroit Street Railway (Detroit: 1931).

areas, the downtown core of the city, and the transport systems serving the community. Political, social, and economic trends in the city - although obviously important - are not the primary focus of this study.

The attempt to discover the impact of the cable car upon San Francisco generated a number of secondary questions. For example, if the cable railways affected the growth of the city, did they consistently foster a certain type of growth, such as residential, commercial, or recreational? The impact of San Francisco's environment upon the city's settlement and growth patterns also required consideration. It is possible that the city's benign climate and unwieldy topography influenced its patterns of development to a greater extent than the cable car.

The general and celebratory nature of most historical and contemporary accounts of San Francisco's cable railways reinforced the need for a careful study to determine the impact of the technology upon the community. Both historical and popular sources tend to credit the cable lines with vast developmental powers, while offering only the slightest shreds of supporting evidence. A newspaper article in the 1880's boasted that the construction of the cable lines was followed by a great real estate upheaval that brought sudden wealth to thousands of holders of what seemed the most unpromising property in the world. Andrew Hallidie made more millionaires than the Comstock, and opened up possibilities of development before undreamed of.¹⁶⁹

Many writers argued that the cable railways changed the face of San Francisco and the lives of its citizens. Nineteenth century historian B.E. Lloyd proclaimed that the car lines

leveled the sand dunes, reclaimed the marshes, filled up the gulches, and instead of a desolate and barren waste that was, there have sprung up blocks and streets of comely residences, the homes of thrifty and industrious citizens.¹⁷⁰

A modern historian claims no less for the cable car, stating that more than any other technological development the street car was responsible for the spatial organization and structure of the . . . city. Its routes determined the location of industry, the building and maintenance of commercial centers. . . and the development of the suburb.¹⁷¹

These sources claim that the introduction of the cable lines, which carried greater numbers of people, longer distances at higher speeds than had the earlier horse-drawn street railways, altered residential patterns, industrial

¹⁶⁹ Andrew S. Hallidie Papers, Folder 8, California Historical Society, San Francisco.

¹⁷⁰ B.E. Lloyd, Lights and Shades in San Francisco (San Francisco: 1876), p.

¹⁷⁵
¹⁷⁷ Carson (1977), p. 1.

development, and even concepts of leisure and recreation.

Clearly, the literature is full of generalizations concerning the impact of the cable railways upon urban growth, but the evidence to substantiate these claims has not been collected, organized, or analyzed in a systematic way. From the standpoint of an economic approach to these questions there are additional obstacles to a clear picture. The effects of the national economic cycles, with their prevailing boom/bust pattern, was atypically intense in San Francisco. The city's business activity tended to be highly speculative and closely linked to the silver mines of Nevada's Comstock Lode. San Francisco's business cycles often mirrored the ups and downs of the silver mines.

Despite deficiencies in quantity and reliability, the historical evidence found in newspapers, the Real Estate Circular, and a variety of other sources does support some of the assumptions made about the importance of the cable car to San Francisco's development. The evidence does not suggest that the cable car determined the city's urban patterns, but that it influenced these patterns is undeniable. The conclusions presented here must be considered tentative, for the reasons cited above. Nevertheless, it is clear that the cable railway system has exerted a profound effect upon San Francisco, an impact that transcends physical facilities and economic development to a position as a symbol of the city itself.

In 1776, while the American colonies deliberated over a brewing revolutionary war, Spanish officials in Mexico engaged in exploring and settling Alta California. That spring, Captain Juan Bautista de Anza led a party of missionaries and soldiers to the northern shore of San Francisco Bay. There the soldiers formed a garrison, or presidio. A few miles to the south Franciscan monks started the Mission of San Francisco de Assisi. Between 1780 and 1830 the population of the area remained fairly constant at about 500. As the hide and tallow trade of the area began to grow the Mexican government established a port of entry at the bay. In 1835 they founded the new town of Yerba Buena.

Shortly after the outbreak of the Mexican War in 1846, the United States conquered the province of California and renamed Yerba Buena San Francisco. In 1848 the United States took formal possession of the town under the terms of the Treaty of Guadalupe Hidalgo. Within a year of their arrival the Anglos began laying plans for the development of the town. Jasper O'Farrell surveyed the city in 1847, extending the rigid grid pattern first established by the Mexican settlers into the largely unpopulated lands west of the settlement. O'Farrell also laid out Market Street, a diagonal artery running southwest from the settlement. Market quickly became the principal thoroughfare of the town, and remains so to this day. Subsequent development in San Francisco, particularly in downtown, south of Market, the Western Addition and Mission Districts, corresponded closely to O'Farrell's survey.

San Francisco's population skyrocketed following the discovery of gold in the Sierra foothills in 1848. In 25 years the city grew from a small settlement of 1000 into a major city of over 150,000.¹⁷² These early residents of the city grappled with a climate and topography that played a major role in

determining the patterns of growth within the city. San Francisco's location at the tip of a peninsula, surrounded on three sides by water, severely restricted the amount of space available for expansion. Most of the early residents settled on the eastern, or lee side, of the peninsula. There hills now known as Russian, Nob and Telegraph Hills, and Pacific Heights, offered shelter from the cold, foggy winds coming off the Pacific and held at bay the sand dunes that dominated the western half of the peninsula. These factors restricted the earliest settlement to the eastern portion of the peninsula along both sides of Market Street, and extending south towards the Mission.

From the 1850's to the 1880's San Franciscans leveled some of the smaller sand dunes and hills in the vicinity of Market Street and used the surplus land for fill, with which they extended the city well into the bay. The larger hills to the west and the dunes beyond remained largely inaccessible and uninhabited, pinning the population of the city against the eastern shore of the bay.

The Gold Rush brought an incredible increase in San Francisco's population. The growing size of the city resulted in an increasing demand for public transportation. A steam dummy line operated along Market Street as early as 1860. In the following year the first horsecar line in the city opened. The next two decades witnessed a rapid extension of these lines throughout San Francisco. An 1865 city directory praised the horsecar lines and noted their importance to the community, noting, "It is hardly too much to say that the modern horse car is among the most indispensable conditions of modern metropolitan growth. . . . The horse car virtually fixes the ultimate limits of suburban growth."¹⁷³

Despite their benefits, horsecars had many shortcomings. They were considered little faster than walking, uncomfortable, and a major source of unsanitary conditions in the city. Horses wore out and needed to be replaced frequently. They often carried disease. These problems, coupled with an increasing push to populate and develop the steep hills overlooking the city, where horsecars could not operate efficiently, provided ample incentive to search for an alternative mode of mass transit.

Andrew S. Hallidie and his three financial partners, James Moffitt, Joseph Britton, and Henry Davis, organized San Francisco's first cable traction company, the Clay Street Hill Railroad, in May 1873. About a quarter of the \$110,000 cost of constructing the line was furnished by property owners along Clay Street. Although their \$28,000 contribution signified a certain degree of confidence and faith in the experiment, it should be noted that the original pledge to the company amounted to \$40,000, but very few individuals could be persuaded to subscribe for the stock of Hallidie's firm.

The Clay Street Hill Railroad opened for revenue service on 1 September

¹⁷³Bion Arnold, Report on Transportation Facilities, City of San Francisco (San Francisco: 1912), p. 415.

1873. It quickly proved a financial success, and by 1876 was transporting 150,000 people annually. Historian George W. Hilton states that "as Hallidie and his associates had hoped, the installation developed Nob Hill very well. . .¹⁷⁴ In October 1873 the San Francisco Real Estate Circular gave its opinion of the anticipated effects of this new transportation system on the city

It has for years been a saying here that our high hills are the most healthy, commanding and pleasant places for residence, but few had either the strength or taste for climbing them. Everybody liked them when there, but to climb them was the difficulty. Should the Clay Street Hill Railroad prove a success, it will make property on the hills over which it runs as accessible as land on level ground south of Market Street. Real estate and rents on the hills will thereby have a great impetus.¹⁷⁵

By November the Real Estate Circular had begun to write eye-catching headlines about "High Prices on the Hills." An advertisement for a \$15,000 fifty-vara lot on Clay and Gough Streets is a typical example of this phenomenon.¹⁷⁶ Hallidie himself purchased a lot on Nob Hill prior to the construction of the Clay Street Hill Railroad for \$3000, selling it eighteen months later, after completion of the line, for \$9000.¹⁷⁷

The Real Estate Circular was so confident of the future of cable traction that in May 1874 it announced "beyond a doubt, this method of traction will be used on all the street-railroads of this and every other city of the United States within a few years."¹⁷⁸ Despite this acclaim, two and a half years elapsed before the Sutter Street Railroad converted from horsecars to cable operations, giving San Francisco its second cable railway.

The fact that the Sutter Street line operated over only moderate grades and climbed no steep hills, unlike the Clay Street Hill Railroad, marked a significant development in cable traction, and proved the adaptability of the cable car to operations over flat terrain. The Sutter Street Railroad marked the first real thrust of a cable railway into the largely undeveloped Western Addition section of the city.

Both the Clay and Sutter Street lines replaced earlier horsecar operations, initiating the general demise of the horsecar in San Francisco. Operating expenses for the Sutter Street Railroad's cable cars proved to be 30% lower than for the horsecars they replaced. At the same time the cable cars carried

¹⁷⁴Hilton, p. 185.

¹⁷⁵San Francisco Real Estate Circular, 7 (October 1873).

¹⁷⁶A fifty-vara lot is one-sixth the size of a standard block, measuring approximately 137.5 feet square. California Architecture and Building Review (1 January 1880).

San Francisco Real Estate Circular, 7 (November 1873).

¹⁷⁷Street Railway Journal, 1 (April 1885), p. 116.

¹⁷⁸San Francisco Real Estate Circular, 8 (May 1874).

over 900,000 more passengers than the horsecar lines during their first year of operation. Publication of this information must have produced a tremendous effect upon the owners of most of the city's transportation companies. Surely it encouraged the Sutter Street firm to expand its operations and construct, in 1878, the first crosstown (north-south) line in the city.

The first real impetus for a citywide movement of population toward the Western Addition came with the opening of the California Street Cable Railroad in April 1878. Henry Root, working under the close supervision of principal owner Leland Stanford, pushed the California Street line into the Western Addition and extended the route .8-miles farther west with the extension of the line to Central (now Presidio) Avenue in 1879.

In addition to providing access to the Western Addition, the California Street Cable Railroad also furnished a second route up Nob Hill. In the same year that he obtained a franchise for the cable line Stanford broke ground for his mansion atop the Hill. Historian John Young stated in 1912 that the effect of Stanford's choosing Nob Hill for the site of his mansion proved "very marked. . . . It at once decided that the movement of the fashionable world would be westward."¹⁷⁹ The San Francisco Chronicle recalled in 1909 that "the commencement of the road gave an impetus to the value of property on the Hill at once and during the progress of the work, real estate values were enhanced from 40 to 100 percent along the car line."¹⁸⁰ It is impossible to fix these values exactly, but the general tenor of the report seems to confirm the fact that a good deal of development occurred atop Nob Hill during and after the construction of the car line. Stanford's home proved only the first of a succession of palatial estates constructed atop Nob Hill. Some historians claim that Stanford built the California Street Cable Railroad simply for the convenience of the wealthy residents of Nob Hill, while others believe the development of the Hill as an fashionable residential neighborhood resulted from the convenient transportation furnished by the cable line. The exact nature of the relationship between the California Street Cable Railroad and the settlement of Nob Hill is uncertain, but the diversified ridership of the line, which ran through the heart of Chinatown, indicates that patronage of the cars was not limited to the wealthy.

The Real Estate Circular prophesied the importance of the cable car to hilltop living in the issue in which it announced the granting of Stanford's franchise. The writer remarked that

The wire-cable mode of propelling street cars being susceptible of use on the very steepest hills, where horses could not possibly be used, will prove ultimately to be one of the most valuable aids to increasing San Francisco real estate values ever devised. The hills would be inaccessible but for the wire-cable railroads. . . . It will therefore, in future, be possible to have a residence on the steepest side-

¹⁷⁹ John Young, San Francisco, A History of the Pacific Coast Metropolis, 2 vols. (San Francisco: 1922), 2:passim.

¹⁸⁰ San Francisco Chronicle (1909).

hills, and still be in a place that will be quickly, easily,
and cheaply accessible.¹⁸¹

John Young also linked the development of Nob Hill with that of the Western Addition, noting that "the stamp of fashionable approval and improved transportation facilities would cause the filling up of the Western Addition."¹⁸² The Real Estate Circular extolled the anticipated benefits of the new line, stating

This road will open up easy, direct, and cheap communication with the northern and neglected portion of the Western Addition and with Golden Gate Park. It will fill a want which has long been felt. We have already a finer park than most cities can boast of. . . . but, for want of a cheap and rapid transportation, it has been beyond the reach of the class who would most frequently seek it in search of health and recreation. . . . A most populous neighborhood will be opened up rapidly, in a district well suited for residences, but hitherto cut off from communication with the city.¹⁸³

Thomas McGee, editor of the Real Estate Circular, chafed at the delays in the construction of the California Street line, but when construction finally began on 5 July 1877 he again praised the line and the benefits it would bring to the city.

The line will be of great service to that section of the city lying between Clay and Bush Street. It never has had any but snail like car communication. Fast time will be made on the new line, which will be most substantially built.¹⁸⁴

If McGee represented the views of the San Francisco real estate community as a whole, the California Street Cable Railroad was widely seen as an opportunity to both raise property values and encourage development of new geographic areas.

Although they benefited the wealthy living on the hill tops, the cable roads did not operate exclusively for the Stanfords and other nabobs. Frequent references attest to their use by the working classes as well. McGee trumpeted the fact that the California Street line would "be an early and late one. . . . it will run early enough to accommodate the working classes, and late enough to accommodate theatre-goers."¹⁸⁵ He supported the ridership of the working class, complaining that the "Clay Street Hill Railroad cars do not leave the northern road western terminus to bring passengers down into the city each morning until 20 minutes to 8 o'clock. . . . Working people can not use it in the mornings at all."¹⁸⁶ McGee also demanded that the cable companies supply additional seats for "tired workingmen, clerks and working

¹⁸¹ Ibid.

¹⁸² Young, passim.

¹⁸³ San Francisco Real Estate Circular, 10 (May 1876).

¹⁸⁴ San Francisco Real Estate Circular, 12 (July 1877).

¹⁸⁵ San Francisco Real Estate Circular, 12 (May 1877).

¹⁸⁶ San Francisco Real Estate Circular, 12 (April 1877).

girls" returning from their jobs.¹⁸⁷

The desire to provide transportation to the parks in the western portion of the city becomes evident in contemporary accounts beginning in about 1878. The city established Golden Gate Park in 1870, but the area remained largely sand dunes for nearly a decade. Once improvements were made Golden Gate Park became a popular recreational spot. Buena Vista Park is listed on maps of this period as simply "Park," apparently serving recreational needs from as early as 1873.

The Real Estate Circular raised the cry for cable car service to these recreational areas in November 1878, but it was five years before any cable line reached Golden Gate Park.

If a wire cable road were built from Market Street to the Park, on either Hayes, Fell, Oak, Page or Haight, he wrote the effect would be immediately to advance land around Buena-Vista Park and the Great Park Golden Gate. Even already, the improvements made, and the prospects of a cable railroad, have advanced the prices of land there.¹⁸⁸

A month later the Circular again took up the cry, Three or four years ago we stated that the next real estate excitement westward would be for land out by the parks, for the erection of fine houses. The projectors of a new wire cable railroad will in ten years have one of the most valuable street railroad franchises in the country.¹⁸⁹

These two statements are interesting for several reasons. They highlight the fact that the interest of the Circular in recreational opportunities for San Francisco's citizens was matched by a desire to advance property values. They also illustrate the difficulty of attempting to determine whether cable lines opened new areas such as those around the parks to development, or whether the settlement of these districts encouraged cable companies to build new lines to meet the transportation needs of the new residents. From the tone of these statements it would appear that the cable lines that ran to the park districts in the Western Addition provided transport services to a district already developing. While the cable lines undoubtedly made these districts appear more attractive to people considering taking up residence near the parks by providing convenient service to the center of the city, they do not appear to have been solely responsible for this movement.

Three cable companies provided service to Golden Gate Park. The Geary Street Park & Ocean Railroad came within several blocks of the park in 1880, and extended its service to its border in 1892. The Market Street Cable Railway ran lines down McAllister, Haight, and Hayes Streets to the Park in 1883 and 1886, the Hayes and Haight Street lines ran along streets earlier suggested by the Real Estate Circular. In 1889 the Omnibus Railroad & Cable Co. built a

¹⁸⁷San Francisco Real Estate Circular, 14 (March 1879).

¹⁸⁸San Francisco Real Estate Circular, 14 (November 1878).

¹⁸⁹San Francisco Real Estate Circular, 14 (December 1878).

line to the eastern edge of the Park along Oak Street, another of the routes suggested by the Real Estate Circular.

McGee called the opening of the Geary Street line in 1880 "one of the most important city events of the month."

The company finds that on a fine Sunday it may . . . carry from 25,000 to 30,000 passengers. The Park has hitherto been unvisited and almost unknown, except to a small class who can indulge in buggy and horseback riding. It is now within reach of all, and the thousands who have visited it since the Geary-street line was opened, show how much . . . better access to it was needed.¹⁹⁰

Observers felt that the two Market Street Cable lines that opened in 1883 would spur development in the area and provide better access to the Park than that provided by the Geary Street Park & Ocean. A year prior to its opening the Real Estate Circular predicted that "construction of the Haight Street railroad will make a great change in the value of land in the neighborhood of the Park terminus of this line. The streets adjoining will be among the most fashionable and the most healthy of any in the city."¹⁹¹

Property values along the line did increase, according to the Street Railway Journal, which reported that an unimproved block on Fillmore near Haight that had sold for \$20,000 in 1881 increased in value to \$50,000 by 1886. The Journal also reported that Market Street Cable purchased a block on Haight for \$20,000. Before construction of the cable line the same block sold for \$12,000. In 1886 Market Street Cable resold half of the lot for \$30,000, retaining the other half.¹⁹² Although evidence is too sketchy to prove the existence of this pattern throughout the city, it is clear from this account that at least one cable traction company invested in the property along its routes, apparently for resale on speculative grounds.

The Haight benefited greatly from both its proximity to the Park and the new cable lines. Haight and Stanyan Streets served as the center of the transportation network stretching from the center of the city to Golden Gate Park. The Haight Street line and the Geary Street Park & Ocean operated car barns in the area and the turntables for the Haight and Oak Street lines were located near the intersection. A report published by the City of San Francisco noted that the "simultaneous development of the park and the street-car system stimulated building, increased property values, and made the Haight a center of social activity for the entire city." The report cited an increase in property values along the eastern edge of the park from \$25-50 per front foot in the early 1880's to \$125-250 in 1891.¹⁹³

Real estate values advanced rapidly in the Haight throughout the 1880's as the

¹⁹⁰San Francisco Real Estate Circular, 15 (March 1880).

¹⁹¹San Francisco Real Estate Circular, 17 (October 1882).

¹⁹²Street Railway Journal, 53 (April 1886).

¹⁹³Arnold (1912), pp. 2-3.

area developed into a middle income and working class neighborhood. A year after the completion of Market Street Cable's first lines into the area the Real Estate Circular reported that

the Western Addition was the banner portion of the city last year. . . . Very much the most of this increase of sales occurred along or near the McAllister and Haight street lines of cars, particularly the later. Fifty-vara after fifty-vara, block after block, out there has been sold, generally in subdivisions, and never at high prices.¹⁹⁴

Although prices remained low enough to attract middle income families to the area, it is clear that land values rose significantly after the completion of the new lines. In August 1884 the block bordered by Oak, Fell, Fillmore, and Steiner Streets sold for \$35,000. In May of 1881, before the appearance of the cable lines in the area, the same block brought only \$25,000. Similarly, the block bounded by Page, Oak, Pierce, and Scott sold for \$32,000 in 1884, after selling for \$23,900 in June 1880 and \$25,000 in August 1882.¹⁹⁵

The years 1884 and 1885 saw "something of a rush on the part of small buyers for cheap vacant suburban building lots" in the Western Addition because of both the completion of the cable routes and a drop in interest rates. These two factors enabled buyers to purchase inexpensive lots previously considered inaccessible to people working in the heart of the city. Although the prices for lots in the Western Addition appreciated significantly in value during these years they still remained within the reach of many middle class and working class buyers who could not afford the price of lots in the center of the city.¹⁹⁶ By the end of 1885, however, "the rush for cheap lots exhausted itself."¹⁹⁶

The great number of houses erected on these newly purchased lots is another measure of the rapid development of the Western Addition during these years. In 1887 one-third of the 1350 land sales in the area underwent further development. Many of these new owner-occupants came from the working class, moving into the district from the area south of Market Street. The Real Estate Circular reported that these mechanics and clerks willingly endured a commute five to ten minutes longer in order to take advantage of the relatively lower real estate prices in the Haight and other Western Addition districts.¹⁹⁷

The cable car runs so fast that six or eight blocks in distance makes very little difference in time, while they make a very great difference in price and so the cheapest lots rather than the nearest are now purchased most frequently.¹⁹⁸

The boundaries of census tracts shifted frequently during this period, making

¹⁹⁴ San Francisco Real Estate Circular, 20 (December 1884).

San Francisco Real Estate Circular, 19 (August 1884).

¹⁹⁶ San Francisco Real Estate Circular, 22 (December 1886).

¹⁹⁷ San Francisco Real Estate Circular, 21 (December 1885).

¹⁹⁸ San Francisco Real Estate Circular, 21 (March 1886).

it virtually impossible to quantify the exact extent of population movement within the city, but the addition of new census tracts in the Western Addition suggests a heavy flow into this area.¹⁹⁹ In addition to increased settlement, the area also developed support facilities for the growth of the area as the city's primary recreational district.

It was not at all unusual to see thousands of people swarming to the park on weekends. An amusement center was operating at Haight and Cole. Bars, bike shops, hotels, restaurants, a livery stable, and numerous other services sprang up along Stanyan.²⁰⁰

McGee's Real Estate Circular also promoted other areas in the Western Addition, calling for a direct cable line to the Presidio in 1878.

Land toward the Presidio is practically as inaccessible as though it were at San Mateo about 20 miles south of San Francisco Such a road will alone bring real estate up to its true value there. That end of the city, heretofore almost utterly neglected, is, in fine weather, one of the most desirable portions of the peninsula.²⁰¹

McGee noted the fact that the owners of the Presidio & Ferries Railroad, which built a route to the Presidio in 1880, included "men of means and large property owners in the direction in which the line is to run. This . . . is the reason that impels them to build the road."²⁰²

In 1891, the San Francisco Journal of Commerce commented that with the cable car "it became possible to travel two to three miles from the center of the city in 20 minutes to half an hour, and new streets were opened, while new blocks of buildings sprang up as if by magic."²⁰³ Certainly this description is accurate for the Western Addition where, in 1881, growth occurred at a rate approximately three times as rapid as in the other sections of the city.²⁰⁴

The Mission District, located to the south of the center of the city, did not enjoy anything so dramatic as this rate of growth, something the Real Estate Circular lamented.

The Western Addition is now pretty well supplied by four cable lines in operation. . . . The Mission in this respect is subject to a disadvantage, from which it did not suffer before these new lines were introduced westward. The Mission will not have a fair chance in the competition with other districts in the city until one or two cable lines are running

¹⁹⁹U.S. Census Bureau, Report on the Social Statistics of Cities, Part 2, San Francisco, California, 1887.

²⁰⁰Department of City Planning, Report, p. 3.

²⁰¹San Francisco Real Estate Circular, 14 (September 1878).

²⁰²Ibid.

²⁰³San Francisco Journal of Commerce, Builders of a Great City: San Francisco's Representative Men, the City, its History and Commerce, p. 56.

²⁰⁴San Francisco Real Estate Circular, 17 (December 1881).

to it.²⁰⁴

In 1883 the construction of the Market and Valencia Street lines of the Market Street Cable Railway partially corrected this inequity. In anticipation of their opening the Real Estate Circular prophesied "a decided change for the better in Mission property."²⁰⁵ Nine months later, having learned that construction of the lines would definitely take place, McGee urged that readers contemplating "buying or building along Valencia Street. . . . may now with confidence go ahead with their building or purchases."²⁰⁶

The growth of the Mission proved less regular and predictable than that in the Western Addition. Certain streets, such as Valencia, tended to realize a great deal of growth, while others, also served by cable lines, remained stagnant. Despite these variations McGee persistently urged the conversion of horsecar lines to cable operations, "a change that would have a most beneficial effect on Mission property."²⁰⁷

Certain blocks along Valencia tended to exhibit a greater increase than the rest of the street. In 1885 McGee noted that "no Mission property has advanced in price within a year, except that on Valencia and Mission, say, between, 16th and 22nd."²⁰⁸ The following year he reported a 20-30% increase in property values along Valencia from Market to 26th Street, the limit of the cable line. A lot on the northwest corner of Valencia and 13th Street sold for \$4500 in March 1885, and was resold in November 1886 for \$6100.²⁰⁹

Even in these cases it is difficult to conclude that the cable lines directly affected real estate values. The Real Estate Circular posited a possible influence of the cable cars upon the Market Street shopping district in 1886, noting

the four lines of the Market Street Cable Company operating on Market Street run so fast and frequently that they form a nearly continuous line of cars. . . . They are of great value to stores, by means of their dummies. Passengers riding on the dummies have a merchants name and business impressed on their minds through their eyes as they never had on the old closed-in horse cars.²¹⁰

It is interesting to speculate about the possible influence merchants along Market Street might possibly have exerted upon Henry Root's design for the combination cars adopted by the line. The forward portion of these cars retained the open arrangement of the early dummies, which McGee felt increased the lure of the street's stores upon the riders.

- ²⁰⁴San Francisco Real Estate Circular, 15 (April 1880).
²⁰⁵San Francisco Real Estate Circular, 15 (September 1880).
²⁰⁶San Francisco Real Estate Circular, 16 (May 1881).
²⁰⁷San Francisco Real Estate Circular, 20 (December 1884).
²⁰⁸San Francisco Real Estate Circular, 21 (December 1885).
²⁰⁹San Francisco Real Estate Circular, 22 (December 1886).
²¹⁰San Francisco Real Estate Circular, 21 (December 1886).

The Real Estate Circular's editorial stance may also have altered perceptions concerning the relationship between the cable lines and property values. By 1884 the paper's advertising columns carried a listing for "Lots Along the Cable Lines," and its news pages seldom hesitated to proclaim the virtues a cable line held for the districts it served.²¹¹

Throughout the 1880's and 1890's the Real Estate Circular argued that the improvement of San Francisco's transportation system through the construction of cable lines would diminish out-migration, across the bay to Oakland. In 1880 McGee wrote that

time, cheapness of access and the low price of lots are the points that create real estate progress. It will soon be utterly impossible for suburban lots to compete with the vacant lots of this city. . . . Oakland must therefore take a back seat.²¹²

Ten years later McGee credited the cable car with saving San Francisco from being depleted by the lures of Oakland.

But for our cable lines, which run everywhere, Oakland therefore would have a population of at least 50,000 more than they have now. Had five of our main cable lines been built fifteen years earlier, Oakland. . . . would have 25,000 less people than they have now. From 1873 to 1880 people left this city by the thousands every year because of the slowness of the horse car lines and of the difficulty of getting a seat on them. . . .²¹³

Even in 1893 it took little imagination to realize that San Francisco's cable railway system had peaked. At that time nine lines extended deep into the Western Addition, three had made inroads into the Mission, and an additional three ran crosstown. The cars ran over more than 50 miles of double-tracked streets, an increase in mileage of over 50% in five years. Still the decade of the 1890's proved hard times for both San Francisco and the cable car. Real estate values and sales dropped by nearly 50% between 1891 and 1893, as the city experienced a severe economic downswing. During these same years the electric streetcar became a practical transportation system for urban streets. With its last major shortcomings removed, the electric streetcars began supplanting the cable lines in earnest.

The depression of the 1890's struck particularly hard in the outlying areas of the city, such as the Richmond District and the Point Lobos Avenue vicinity.²¹⁴ Even the Haight and Mission Districts, which previously had enjoyed rapidly rising property values, now experienced serious setbacks in terms of property values and prices. McGee reported that "There was not a lively demand for any kind of Mission property in 1892. Even Mission and

²¹¹San Francisco Real Estate Circular, 19 (April 1884).

²¹²San Francisco Real Estate Circular, 15 (September 1880).

²¹³San Francisco Real Estate Circular, 25 (May 1890).

²¹⁴San Francisco Real Estate Circular, 28 (December 1892).

Valencia Streets, both destined to be good business streets, were not much sought after by buyers."²¹⁵

The depression notwithstanding, Market Street Cable's Castro Street line prospered during the early 1890's. In 1892 McGee claimed that "the business of no line of the Market Street Cable systems has grown so much as that of the Castro Street line within two years," and that "the chief inquiry for Mission property was along and contiguous to the Castro Street line, where the prices are within the reach of small buyers."²¹⁶ In the following year the Real Estate Circular reported that "the number and value of the sales at the Mission. . . . were proportionally larger than in any other suburb of the city, but prices were as weak there as elsewhere."²¹⁷

To a certain extent those areas which enjoyed the greatest increases in values prior to the depression suffered the greatest losses. McGee commented that, "it is especially characteristic of a boom market to send prospective business property up in the air, and of a dead real estate market to let it drop as much too low as it was previously too high."²¹⁸ The experience of the Haight, where the greatest gains occurred prior to the 1890's, tended to confirm this notion. In 1892 the Real Estate Circular claimed that "as a rule all lots westward from Fillmore to Stanyan, and from. . . . Fulton to Waller, brought 10 to 25 per cent less than they sold for in 1890 and. . . . 1891. This was due to oversupply and inflated prices."²¹⁹ Real estate values in the Western Addition fell off another 20% by 1893, and that portion. . . . in which credit sales and booming most prevailed -- say between Divisadero, Stanyan, McAllister, and Waller -- has suffered most. Lots on Page, Oak, Fell and other streets facing or contiguous to the Panhandle of the Park, which sold two to four years ago at \$2,800 to \$3,200 each, are now quotable at \$2,350 to \$2,500 each.²²⁰

Despite such declines the future appeared bright for both the Mission and the Western Addition. The Real Estate Circular noted that the Haight "is on the line of city growth westward, and it is well-supplied with cable car lines, its improvement cannot long be retarded," an evaluation which might also have been applied to the other districts of the city served by the cable car.²²¹

By the time San Francisco's economic health improved in 1894 the cable car's domination of the city's urban transportation system was threatened by the electric trolley, which had been first used successfully in the area in 1891. Once loyal to the cable cars, the Real Estate Circular quickly threw its allegiance behind the newer technological innovation, noting that

²¹⁵ Ibid.

²¹⁶ Ibid.

²¹⁷ San Francisco Real Estate Circular, 29 (December 1893).

²¹⁸ San Francisco Real Estate Circular, 30 (December 1894).

²¹⁹ San Francisco Real Estate Circular, 28 (December 1892).

²²⁰ San Francisco Real Estate Circular, 29 (December 1893).

²²¹ San Francisco Real Estate Circular, 28 (December 1892).

it is obvious that we are on the eve of having an efficient and practical electric locomotive engine. It will be particularly well adapted for street cars; it will be less costly than propulsion by cable and fixed engines, and will in all probability revolutionize street travel.²²²

The cable car's heyday was history. During the 1890's the number of articles dealing with cable traction in trade journals, popular magazines, and newspapers steadily diminished, while those on electric streetcars increased. In a sense, the cable car had already given way to the trolley during the depression of the early 1890's, but the event escaped notice until after the onset of economic recovery. The extensive growth experienced by San Francisco during the mid-1890's can not be attributed to the cable car, despite the fact that the lines were more extensive than ever before. The newly developing areas of the city relied upon the growing number of electric trolley lines for transportation. The first substitution of electric trolleys for cable operations dates from this period, and such substitutions occurred with ever increasing rapidity during the 1890s. This trend continued until the earthquake and fire of April 1906. After that catastrophe the resulting devastation provided the impetus needed for the widespread replacement of the cable lines. This process gained further encouragement from the bribes United Railroads of San Francisco tendered to the City and County Board of Supervisors.

By the late 1880's the relationship between cable traction and urban growth had become tenuous, expansion and growth in the outlying Mission and Western Addition districts depended upon a more complex set of circumstances than merely good transportation services. During the 1870s and 1880s the connection between the cable lines and the development of these areas is fairly demonstrable. The combination of the depression of the early 1890s, the adoption of the electric streetcar, and the earthquake and fire of April 1906 all combined to shift the emphasis of the city's transportation systems away from the cable car toward the electric trolley. Although the cable car survived in San Francisco, its era had passed.

²²²San Francisco Real Estate Circular, 19 (October 1894).

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APPENDIX

San Francisco Cable Railway
Guide to Appendix

The xeroxed photographs which appear in this Appendix are copied from various archives listed below. These archives would not allow copy negatives of these photographs to be made for the HAER collection. Because of the useful information contained within the photographs, we are providing researchers using the collection with access to these photocopies. However, should researchers wish to obtain copies of these photographs, they must consult the appropriate archives directly. A 4x5 inch print of each of these photographs may also be found in the HAER field records for the San Francisco Cable Railway Project.

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Credit CS: Photocopies of historic photographs in the possession of Charles Smallwood, San Francisco. No restrictions on use.

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Credit RDG: Photocopies of historic photographs from the Roy D. Graves Collection, Bancroft Library, University of California, Berkeley. Contact Bancroft Library concerning usage restrictions.

- Photo #1 Credit BL.
CAR TERMINI AT OLD FERRY BUILDING: Photocopy of photograph, c.1890 of the Ferry Building at the foot of Market Street. View to northeast. The Ferry Building served as terminus for many cable car lines, including the Howard Street branch of the Omnibus Railroad & Cable Co., one of whose cars is evident in the foreground.
- Photo #2 Credit CS.
TRANSPORTING CABLE: Photocopy of 1883 photograph showing hauling of first cable to Market Street Cable Railway's McAllister Street powerhouse. Smokestack of powerhouse is visible behind car barn in foreground. Note massive construction of wagon, and large number of horses required to haul cable.
- Photo #3 Credit RDG.
REBUILDING GEARY & LARKIN CROSSING: Photocopy of October 1906 photograph showing rebuilding of crossing of the Geary Street Park & Ocean Railroad and the Sutter Street Railroad (United Railroads of San Francisco) at Geary and Larkin. Note the complicated arrangement of yokes, slot rails, and track rails.

- Photo #4 Credit MUNI.
CALIFORNIA & MASON SHEAVE PIT: Photocopy of September 1957 photograph of California and Mason Street sheave pit. View is to the west. This double-sheave directs the cable into and out of the blind conduit on Mason that connects the powerhouse with the California Street line.
- Photo #5 Credit SFPL.
RECONSTRUCTION ON HYDE STREET: Photocopy of photograph showing rebuilding of the Hyde Street line in 1956-57. View looking north on Hyde to Beach Street. The yokes for the left-hand trackway are embedded in their concrete conduit, while those for the right-hand track are still exposed.
- Photo #6 Credit RDG.
PULL CURVE CONSTRUCTION: Photocopy of an 1883 photograph showing construction of a pull curve at Market and Haight Streets for the Market Street Cable Railway. Plainly evident in the foreground are the flared, horizontal pulleys which guided the cable through the curve. The flare prevented the cable from sliding off the bottoms of the pulleys.
- Photo #7 Credit RDG.
PARTIALLY COMPLETED TURNTABLE:- Photocopy of a c.1885 photograph showing workers posed on a partially completed turntable. The two sets of tracks on the table indicate that it might have belonged to the Market Street Cable Railway. The location is unknown.
- Photo #8 Credit RDG.
SOUTH SIDE AND EAST FRONT OF F&CH RWY POWERHOUSE: Photocopy of c.1893 photograph showing the Ferries & Cliff House Railway's powerhouse and car barn at Washington and Mason. View of south side and east front. Compare appearance of this building with that of the structure erected following the 1906 earthquake and fire.
- Photo #9 Credit RDG.
EAST FRONT OF F&CH RWY POWERHOUSE: Photocopy of c.1904 photograph showing east front of the powerhouse and car barn. Note the annex at the far right of the photograph and the decorative canopy at the building's southeast corner.
- Photo#10 Credit RDG.
WASHINGTON & MASON POWERHOUSE AFTER EARTHQUAKE: Photocopy of photograph taken on the morning of 18 April 1906 showing powerhouse and car barn. View is looking east down Washington Street towards the building's southwest corner. The people standing in the street in the background are watching the fire as moved up the hill from downtown. Note the relatively undamaged state of the building, as compared to CA-12-37 and CA-12-38, which show it following the fire. Also note the car trapped by falling bricks as it exited the building.

- Photo #11 Credit RDG.
WASHINGTON & MASON POWERHOUSE AFTER FIRE: Photocopy of photograph taken in April 1906 showing southwest corner of powerhouse and car barn. Approximately the same view as CA-12-36, but taken after the fire ravaged the area. Photographs CA-12-36 and CA-12-37 were taken by a United Railroads of San Francisco photographer for insurance purposes.
- Photo #12 - Credit RDG.
SOUTHEAST CORNER OF POWERHOUSE AFTER FIRE: Photocopy of an April 1906 photograph showing the southeast corner of the powerhouse and car barn after the earthquake and fire. The extent of the damage suffered by the building is plainly evident. A portion of the steam engines that drove the winding machinery is visible through the two corner windows.
- Photo #13 - Credit RDG.
SOUTHEAST CORNER OF POWERHOUSE DURING RECONSTRUCTION: Photocopy of March 1907 photograph taken during reconstruction of the powerhouse and car barn. View looking north on Mason Street towards southeast corner of building. The cars standing in Mason Street were stored on the street until completion of the new building. Steam rising from building's interior indicates that at least one of the lines operated out of the building had resumed service. Note scaffolding around the walls.
- Photo #14 Credit RDG.
WASHINGTON & MASON STREETS DURING RECONSTRUCTION: Photocopy of 1907 photograph, not 1906 as noted on print, taken during reconstruction of the powerhouse and car barn. View looking north on Mason towards the intersection of mason and Washington. Cable cars stored in the street in front of the building are clearly evident. The south wall of the building is visible behind the two cars on Washington Street.
- Photo #15 Credit CHS.
HALLIDIE GRIP PULLEY: Photocopy of 1879 engraving of the Hallidie grip pulley. Invented by Andrew S. Hallidie this device drove the cables of the Clay Street Hill Railroad and the Presidio & Ferries Railroad. The jaws on the outer rim of the pulley alternately grasped and released the cable, supplying the adhesion required to prevent the cable from slipping. Engraving from Hallidie's The Mechanical Miner's Guide 3rd ed. (1879).
- Photo #16 Credit CHS.
F&CH RWY STEAM ENGINES - 1888: - Photocopy of 1888 Risdon Iron Works builder's photographs of the steam engines installed by the firm in the Ferries & Cliff House powerhouse. View is from southeast corner of the building looking out towards the winding sheaves and tension

runs. The engines are brand new, and have not even had the cables strung over the winding sheaves yet. The brick wall in the left background of the photograph separated the original boiler room from the rest of the building. Note the winding sheaves, engine flywheel, and gearing in the background of the photograph.

Photo #17 Credit CHS.

STEAM ENGINES - F&CH RWY POWERHOUSE: Photocopy of 1888 Risdon Iron Works builder's photograph showing the steam engines installed by the firm in the Ferries & Cliff House powerhouse. View towards east wall of the building.

Photo #18 Credit CHS.

WINDING SHEAVES - 1888: Photocopy of 1888 Risdon Iron Works builder's photograph of the winding sheaves installed by the firm in the Ferries & Cliff House powerhouse. The cables have not yet been wrapped over the sheaves. View from the south towards the northeast corner of the building. Note the low height of the ceiling compared with the present building.

Photo #19 Credit NMM.

F&CH RWY POWERHOUSE ELEPHANT BOILERS: Photocopy of 1893 Union Iron Works builder's photograph of the 56"x16' elephant boilers fabricated by the firm for the Ferries & Cliff House Railway. The boilers were installed along the west wall of the first floor of the powerhouse in 1894.

Photo #20 Credit NMM.

ELEPHANT BOILERS FOR F&CH RWY POWERHOUSE - 1894: Photocopy of May 1894 Union Iron Works builder's photograph of the 56"x16' elephant boilers fabricated by the firm for the Ferries & Cliff House Railway.

Photo #21 Credit CHS.

ENGRAVING OF ELEPHANT BOILER: Photocopy of 1896 engraving of an elephant boiler used by the Sutter Street Railway in their Polk and Sutter Streets powerhouse. Engraving from the Union Iron Works Catalogue No. 1 (1896).

Photo #22 Credit RDG.

FIRST FLOOR INTERIOR - 1905: Photocopy of April 1905 photograph showing the interior of the Washington and Mason Streets powerhouse. View towards southeast corner of the first floor of the building. The winding sheaves are in motion under the vertical steam engine in the foreground. The horizontal steam engines are visible in the background of the photograph. Note the cable support pedestal and cable just left of the column on the far right of the photograph.

Photo #23 Credit RDG.

FIRST FLOOR INTERIOR - AFTER FIRE: Photocopy of April 1906 photograph looking into the southeast corner of the powerhouse following the earthquake and fire. View from the north. The damage suffered by the steam engines and winding machinery is clearly evident. Compare this view with the pre-earthquake interior in CA-12-58.

Photo #24 Credit CS.

ENGINES AND WINDING MACHINERY - AFTER FIRE: Photocopy of May 1906 photograph looking through the easternmost window on the Washington Street (south) side of the powerhouse at the wreckage of the steam engines and winding machinery. Note the flywheel of the horizontal steam engine, bull gears, and winding sheaves buried beneath the rubble.

Photo #25 Credit CS.

INSTALLATION OF 1911 ELECTRIC MOTOR: Photocopy of June 1911 photograph taken during installation of the 600hp General Electric motor in the Washington and Mason Streets powerhouse. View towards southeast corner of first floor of building. The motor's chain drive lies on the floor in the center foreground. Winding sheaves and part of one of the tension runs are visible on the far left of the photograph.

Photo #26 Credit MUNI.

INTERIOR VIEW TO WEST ON FIRST FLOOR - 1956: Photocopy of November 1956 photograph of first floor interior of the powerhouse. View towards west wall. The old boiler pits, covered by a concrete slab in 1958, are visible in the foreground. The smokestack is evident on the far left of the photograph. Note the boiler located along the west wall of the building in the center background.

Photo #27 Credit MUNI.

FOUNDATIONS FOR MOTOR & REDUCTION GEAR NO. 1: Photocopy of November 1956 photograph showing the foundations for the 1956-7 electric motor and reduction gear installation, presently Motor and Reduction Gear No. 1. View towards south wall of first floor. The original electrical switchboard is visible against this wall.

Photo #28 Credit MUNI.

INTERIOR VIEW TO SOUTHEAST ON FIRST FLOOR - 1956: Photocopy of November 1956 photograph showing southeast corner of the first floor of the powerhouse. View towards southeast. The winding sheaves are partially visible at the extreme left of the photograph. The original transformer equipment and switchboard are visible to the right of the column in the foreground.

Photo #29 Credit MUNI.

MOTOR AND REDUCTION GEAR NO. 1 - 1957: Photocopy of April 1957 photograph showing Motor and Reduction Gear No. 1. View towards

northwest on first floor of powerhouse. Note the engineer's shack located behind the motor, and the winding sheave partially visible on the far right of the photograph.

- Photo #30 Credit MUNI.
INTERIOR VIEW TO SOUTHWEST ON FIRST FLOOR - 1958: Photocopy of March 1958 photograph showing southwest corner of the first floor of the powerhouse. View towards southwest. The smokestack is visible in the corner of the building. In front of the stack is the old boiler pit, covered by a concrete slab later in 1958.
- Photo #31 Credit MUNI.
CABLE REWINDER - 1958: Photocopy of March 1958 photograph showing cable rewriter on the first floor of the Washington and Mason Streets powerhouse. View to north. Cable was wound onto this spool when removed from the street. This winder has since been replaced.
- Photo #32 Credit BL.
VIEW TO SOUTHEAST OF WINDING MACHINERY - C.1960: Photocopy of c.1960 photograph showing the winding machinery and Motor and Reduction Gear No. 2 (visible on either side of the left-most column in the photograph). View towards southeast. The tension runs extend to the right out of the photograph.
- Photo #33 Credit RDG.
SAN FRANCISCO - VIEW TO WEST C.1847: Photocopy of an engraving showing San Francisco c.1847, before the beginning of landfill activity. View towards the west. Compare settlement patterns with CA-12-99, taken ten years later.
- Photo #34 Credit BL.
VIEW TO SOUTH OF NOB HILL - 1856: Photocopy of 1856 photograph of Nob Hill taken from Telegraph Hill. View is roughly to the south. Housing density falls off markedly with increasing elevation.
- Photo #35 Credit RDG.
VIEW NORTH FROM RUSSIAN HILL - 1862: Photocopy of an 1862 engraving looking north from Russian Hill. Western Addition lands are to the left of the park with the flagpole. Notice the relative lack of development in this district compared to the downtown area.
- Photo #36 Credit RDG.
VIEW WEST FROM RUSSIAN HILL - 1862: Photocopy of an 1862 engraving looking west from Russian Hill towards the sparsely populated and developed Western Addition.
- Photo #37 Credit RDG.
VIEW SOUTH AND WEST FROM RUSSIAN HILL - 1863: Photocopy of an 1863 engraving looking south and west from Russian Hill. The Western Addition comprises most of the right half of the engraving.
- Photo #38 Credit BL.
VIEW EAST ALONG MARKET STREET - 1865: Photocopy of 1865 photograph of Market Street. View towards east.

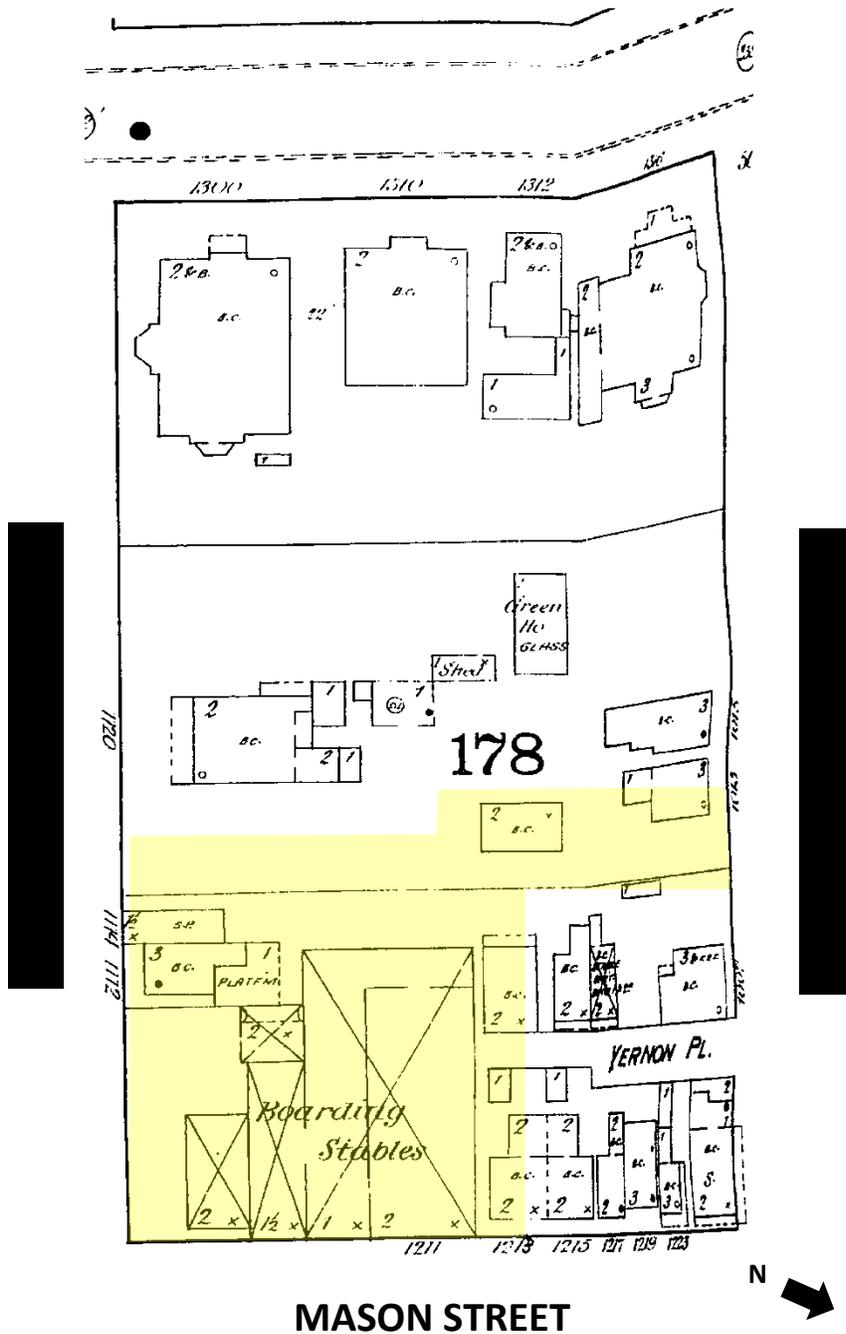
- Photo #39 Credit RDG.
VIEW SOUTH FROM NOB HILL - 1860S: Photocopy of photograph taken in 1860s looking south from Nob Hill into the Mission District towards Mission Dolores, and Hayes Valley. Photograph taken before the introduction of horsecar lines into the area.
- Photo #40 Credit RDG.
HAIGHT & STAYAN TERMINUS OF MARKET STREET CABLE - C. 1885: Photocopy of c.1885 photograph showing the terminus of the Market Street Cable Railway's Haight Street line at Haight and Stanyan Streets, near the entrance to Golden Gate Park. View towards the east looking down Haight Street. The car in the foreground is being turned around on the turntable. Note the almost total absence of women amongst this weekend throng, possibly due to the fact that the cars are advertising service to a baseball game in Golden Gate Park.
- Photo #41 Credit RDG.
VIEW WEST ON UNION STREET AT STEINER - 1880: Photocopy of 1880 photograph looking west on Union Street at Steiner. This intersection was the terminus of the recently completed Presidio & Ferries Railroad.
- Photo #42 Credit RDG.
VIEW TO SOUTHWEST AT POWELL AND CALIFORNIA STREETS - 1883: Photocopy of 1883 photograph showing a California Street Cable Railroad cable car passing in front of the Stanford (left) and Hopkins Mansions atop Nob Hill. View is towards the southwest from the intersection of Powell and California Streets.
- Photo #43 Credit RDG.
VAN NESS TERMINUS OF THE CLAY STREET HILL RAILROAD - 1880S: Photocopy of photograph taken in the 1880s of the Van Ness Avenue terminus of the Clay Street Hill Railroad. View towards the northwest. Note the rather undeveloped appearance of the area.
- Photo #44 Credit RDG.
ADVERTISEMENT FOR HAYES PARK - 1880S: Photocopy of an 1880s advertisement for Hayes Park. The copy notes the easy accessibility of the pavilion and garden via cable car routes.
- Photo #45 Credit RDG.
ADVERTISEMENT FOR SUTRO HEIGHTS - 1880S: Photocopy of an 1880s advertisement for the Sutro Heights area. The Powell and Jackson Street cable cars receive top billing.
- Photo #46 Credit BL.
ADVERTISEMENT FOR GOLDEN GATE PARK - 1880S: Photocopy of an 1880s advertisement for Golden Gate Park printed by the Market Street Cable Railway.

Cable Car Barn, San Francisco, CA
Historic Resource Evaluation

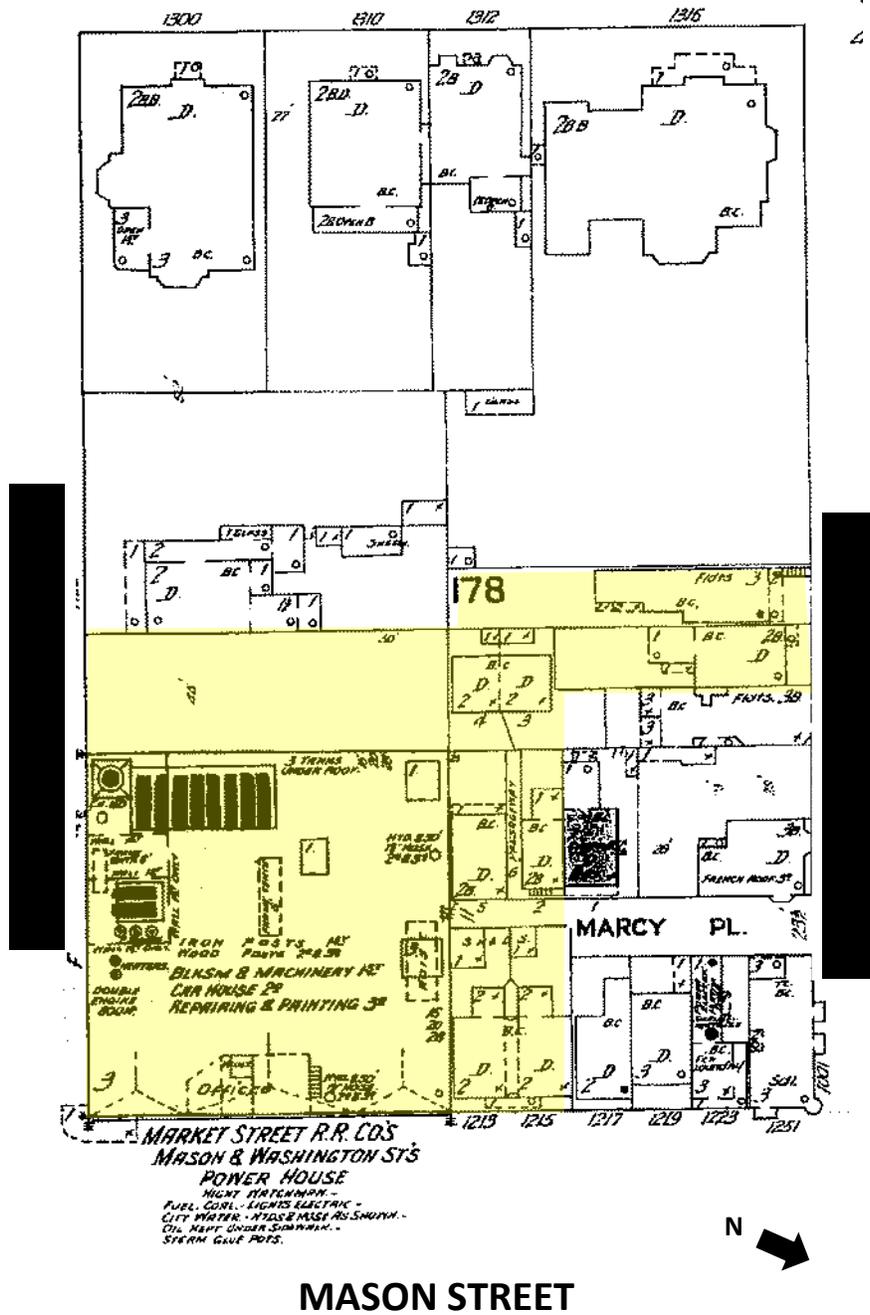
Appendix C: Sanborn Fire Insurance Maps



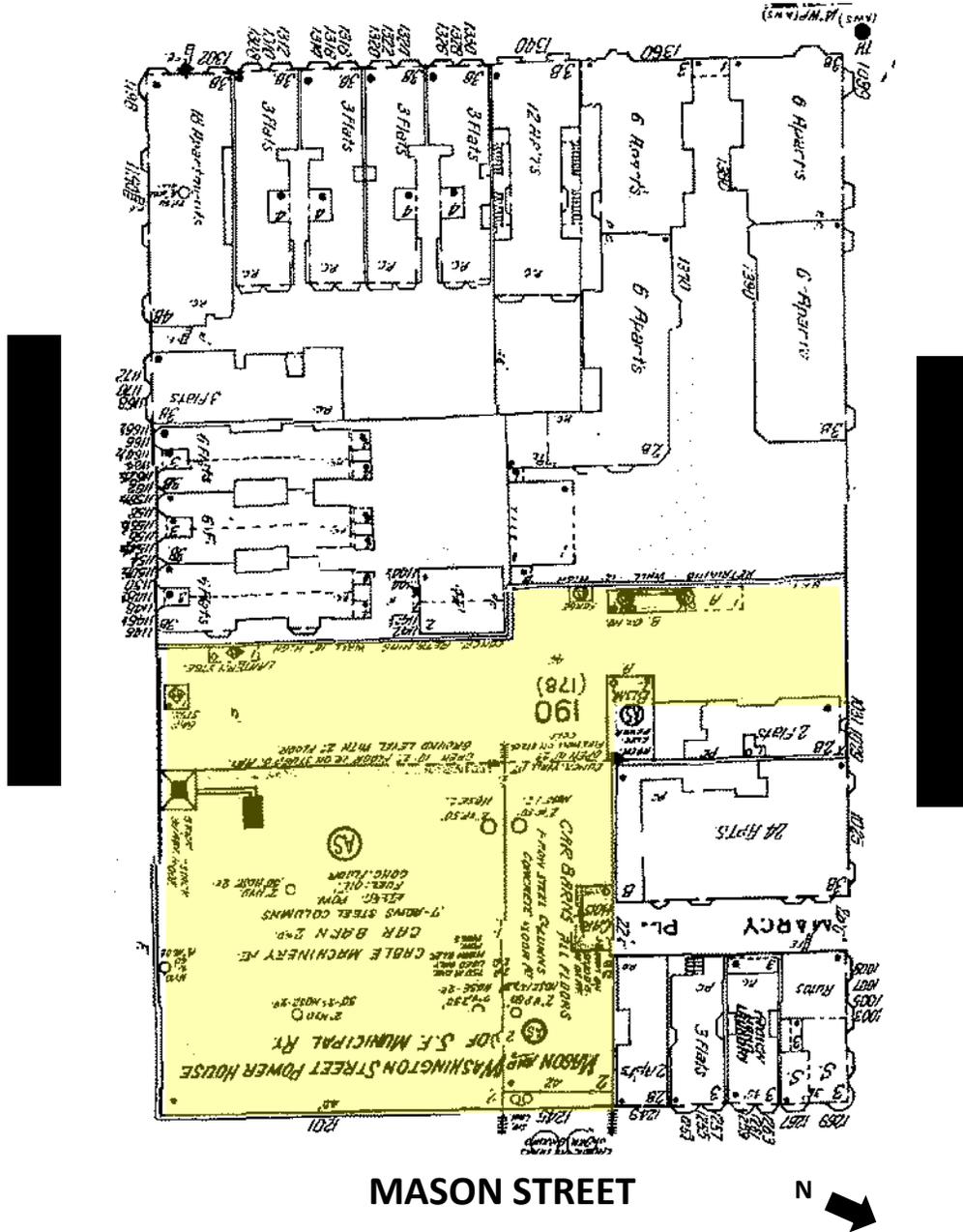
Architectural
Resources Group



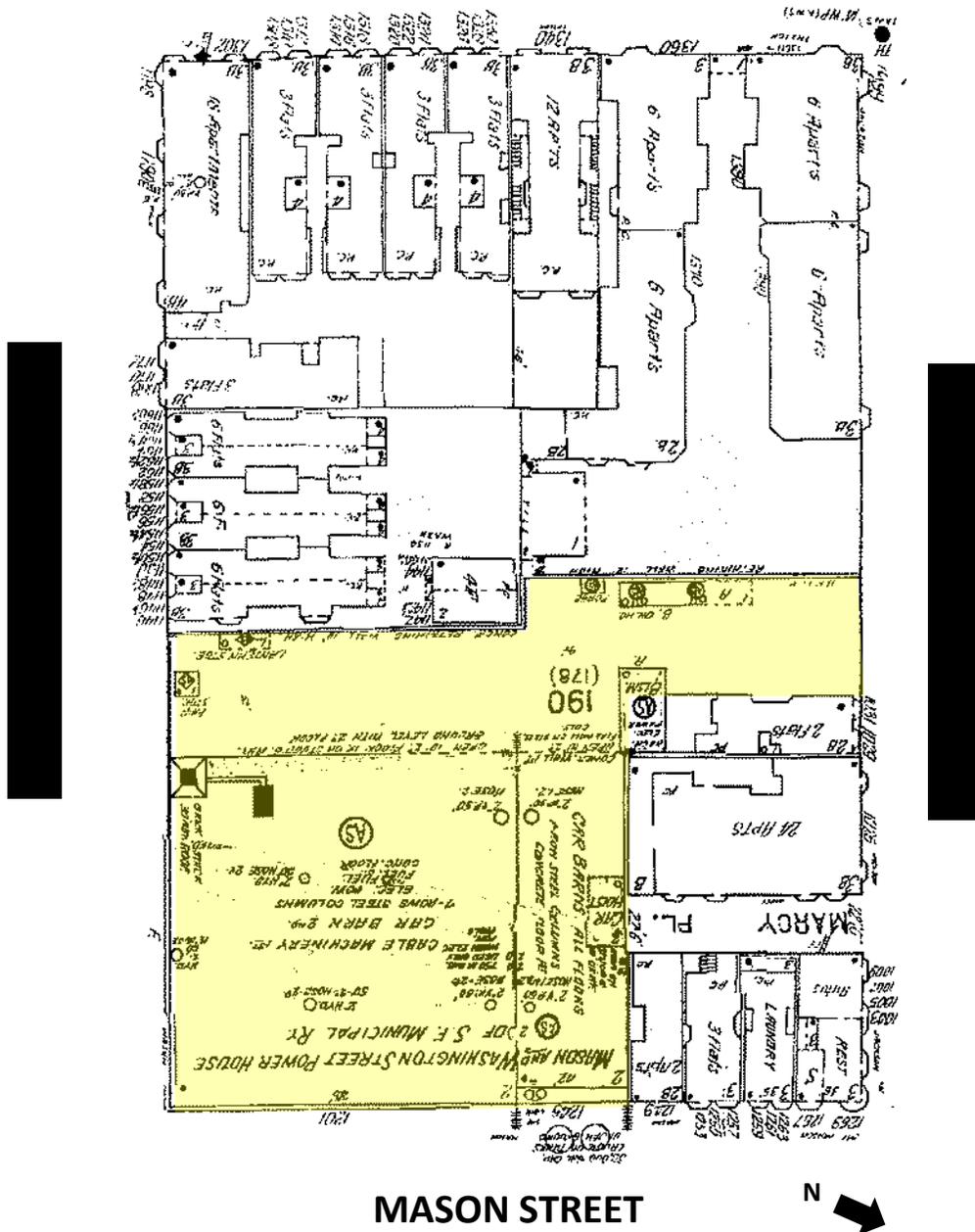
1886 Sanborn Fire Insurance Map, Volume 2, Sheet 34a; approximate boundary of the current parcel highlighted in yellow (San Francisco Public Library; amended by author).



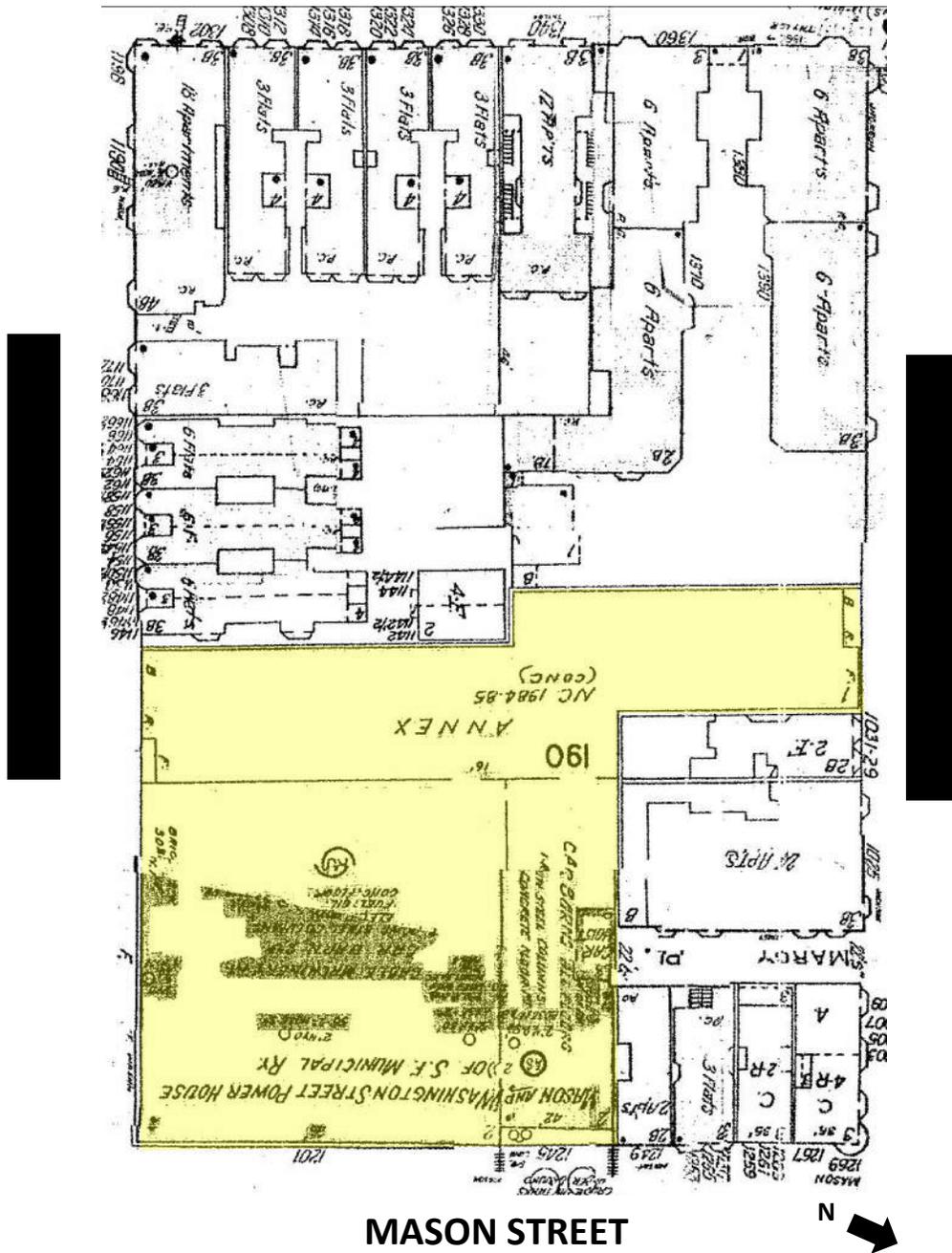
1899 Sanborn Fire Insurance Map, Volume 1, Sheet 53; approximate boundary of the current parcel highlighted in yellow (San Francisco Public Library; amended by author).



1948 Sanborn Fire Insurance Map, Volume 1, Sheet 57; approximate boundary of the current parcel highlighted in yellow (San Francisco Public Library; amended by author).



1950 Sanborn Fire Insurance Map, Volume 1, Sheet 57; approximate boundary of the current parcel highlighted in yellow (San Francisco Public Library; amended by author).



1990 Sanborn Fire Insurance Map, Volume 1, Sheet 57; approximate boundary of the current parcel highlighted in yellow (San Francisco Public Library; amended by author).

Cable Car Barn, San Francisco, CA
Historic Resource Evaluation

Appendix D: Historic Photographs



Architectural
Resources Group



East façade of the original 1888 three-story Ferries and Cliff House Railway Cable Car Barn and Powerhouse, view from Mason Street, 1904 (SFMTA Photo Collection and Archives).



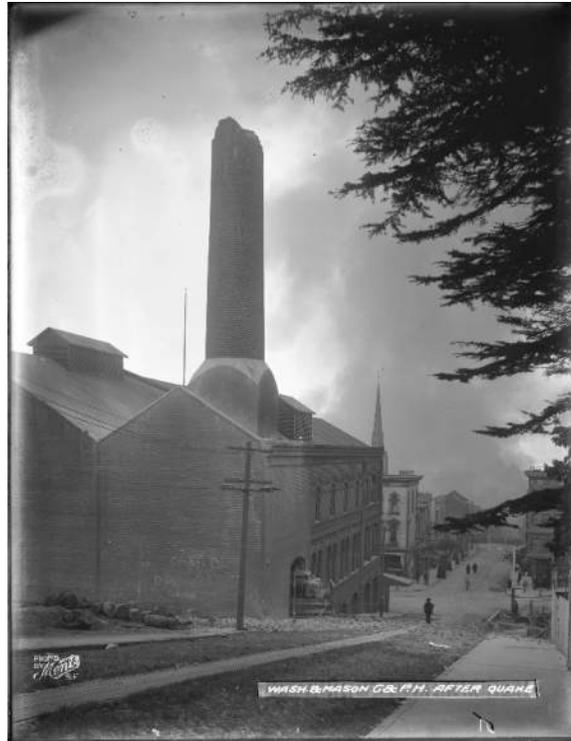
South façade of the original 1888 three-story Ferries and Cliff House Railway Cable Car Barn and Powerhouse, view from Washington Street, 1904 (SFMTA Photo Collection and Archives).



South (right) and east (left) façades of the original 1888 three-story Cable Car Barn and Powerhouse, view from Mason Street, ca. 1900 (San Francisco Public Library, Historical Photograph Collection).



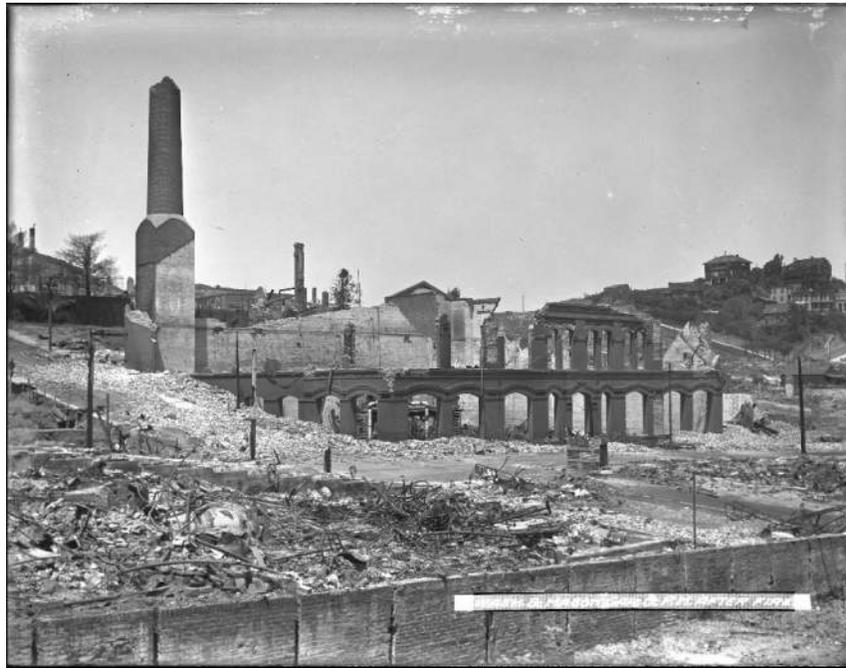
Interior the original 1888 three-story Ferries and Cliff House Railway Company Cable Car Barn and Powerhouse, ca. 1900 (San Francisco Public Library, Historical Photograph Collection).



West (left) and south (right) façades of the original Cable Car Barn immediately after the earthquake and before the fires, 1906 (SFMTA Photo Collection and Archives).



View down Mason Street after the 1906 earthquake and fires with remnants of the original Cable Car Barn with only the smokestack standing (center), 1906 (SFMTA Photo Collection and Archives).



Ruins of the original Cable Car Barn with the smokestack remaining, 1906 (SFMTA Photo Collection and Archives).



Original 1888 smokestack stabilized during construction of the replacement Cable Car Barn, 1906 (SFMTA Photo Collection and Archives).



Construction of the replacement Cable Car Barn with the stabilized smokestack (left), view from corner of Mason and Washington streets, 1906 (SFMTA Photo Collection and Archives).



Construction of the replacement Cable Car Barn with the stabilized smokestack (left), view north along Mason Street, 1907 (SFMTA Photo Collection and Archives).



Construction of the replacement Cable Car Barn with the first floor nearing completion and repaired smokestack (left), view from the corner of Mason and Washington streets, 1907 (SFMTA Photo Collection and Archives).



Construction of the replacement Cable Car Barn with the second floor nearing completion and repaired smokestack (right), view of the north façade from Jackson Street, 1908 (SFMTA Photo Collection and Archives).



Construction of the replacement Cable Car Barn with the stabilized smokestack (center), view of the rear (west) portion of the building, 1908 (SFMTA Photo Collection and Archives).



Completed interior of the replacement Cable Car Barn with the cable turning equipment, 1911 (SFMTA Photo Collection and Archives).



South and east façades of the completed Cable Car Barn, view from corner of Mason and Washington streets, 1921 (SFMTA Photo Collection and Archives).



South and east façades of the Cable Car Barn with original smokestack (left), view west along Washington Street, 1928 (SFMTA Photo Collection and Archives).



East façade of the Cable Car Barn with “Market Street Railway Co.” sign, view up Washington Street, 1928 (SFMTA Photo Collection and Archives).



South (left) and east (right) façades of the Cable Car Barn, view from corner of Mason and Washington streets, 1942 (SFMTA Photo Collection and Archives).



West (rear) façade of the Cable Car Barn with the former cable car maintenance garages, 1942 (SFMTA Photo Collection and Archives).



Visible portion of the north façade of the Cable Car Barn, view from Marcy Place, 1942 (SFMTA Photo Collection and Archives).



Vehicle maintenance entrance at the east façade of the Cable Car Barn, view from Mason Street, 1948 (SFMTA Photo Collection and Archives).



Reroofing the Cable Car Barn with the smokestack in view, 1948 (SFMTA Photo Collection and Archives).



West (rear) façade of the Cable Car Barn with cable car maintenance garage, 1956 (SFMTA Photo Collection and Archives).



West (rear) façade of the Cable Car Barn with cable car maintenance garage, 1956 (SFMTA Photo Collection and Archives).



South (left) and east (right) façades of the Cable Car Barn, view from corner of Mason and Washington streets, 1956 (SFMTA Photo Collection and Archives).



South (left) and east (right) façades of the Cable Car Barn, view from the corner of Mason and Washington streets, 1956 (SFMTA Photo Collection and Archives).



North portion of the east façade of the Cable Car Barnview from Mason Street, 1956 (SFMTA Photo Collection and Archives).



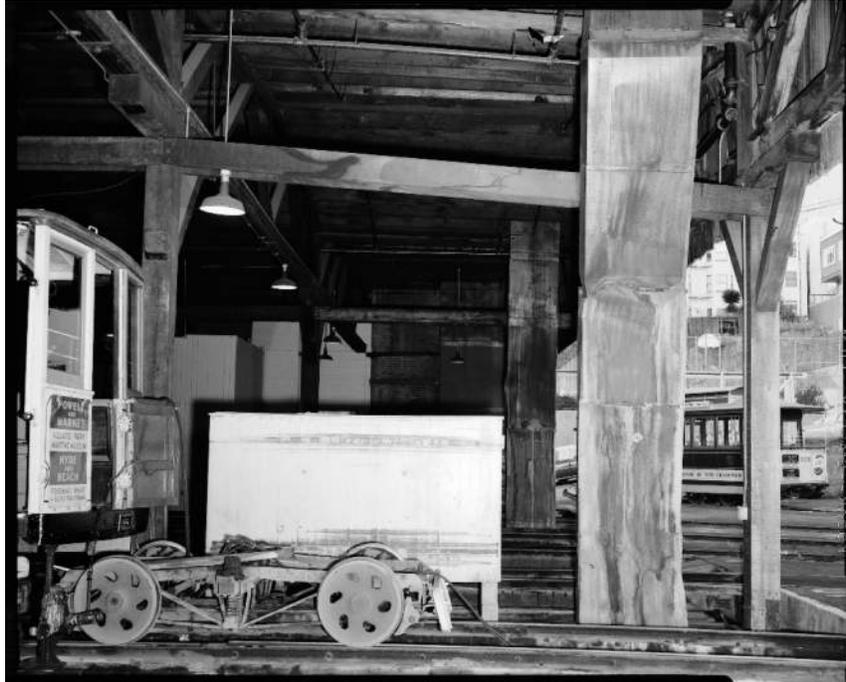
Smokestack and west (rear) façade with cable car maintenance garage, view from Washington Street, 1958 (SFMTA Photo Collection and Archives).



West (rear) façade and cable car maintenance garage in deteriorating condition, 1958 (SFMTA Photo Collection and Archives).



West (rear) façade and cable car maintenance garage in deteriorating condition, 1958 (SFMTA Photo Collection and Archives).



Interior of the rear cable car maintenance garage at the Cable Car Barn, 1958 (SFMTA Photo Collection and Archives).



Former vehicle entrance at the east façade of the Cable Car Barn on Mason Street, 1958 (SFMTA Photo Collection and Archives).



Interior of the Cable Car Barn, 1958 (SFMTA Photo Collection and Archives).



Interior stairs in the Cable Car Barn, 1958 (SFMTA Photo Collection and Archives).



South (left) and east (right) façades of the Cable Car Barn, view from corner of Mason and Washington streets, 1961 (SFMTA Photo Collection and Archives).



Cable car turntable at the west (rear) façade with cable car maintenance garage (left), 1962 (SFMTA Photo Collection and Archives).



South (left) and east (right) façades of the Cable Car Barn after restoration, view from the corner of Mason and Washington streets, 1963 (SFMTA Photo Collection and Archives).



East façade of the Cable Car Barn after restoration, view from Mason Street, 1963 (SFMTA Photo Collection and Archives).



Jackson Street cable car entrance and west (rear) cable car yard, view from Jackson Street, 1964 (San Francisco Public Library, Historical Photograph Collection).



South (left) and east (right) façades of the Cable Car Barn after restoration, view from corner of Mason and Washington streets, 1965 (SFMTA Photo Collection and Archives).



South (left) and east (right) façades of the Cable Car Barn after restoration, view from corner of Mason and Washington streets, 1965 (SFMTA Photo Collection and Archives).



Ground floor of the south (left) and east (right) façades of the Cable Car Barn after restoration, view from corner of Mason and Washington streets, 1965 (SFMTA Photo Collection and Archives).



South (left) and east (right) façades of the Cable Car Barn after restoration, view from corner of Mason and Washington streets, 1965 (SFMTA Photo Collection and Archives).



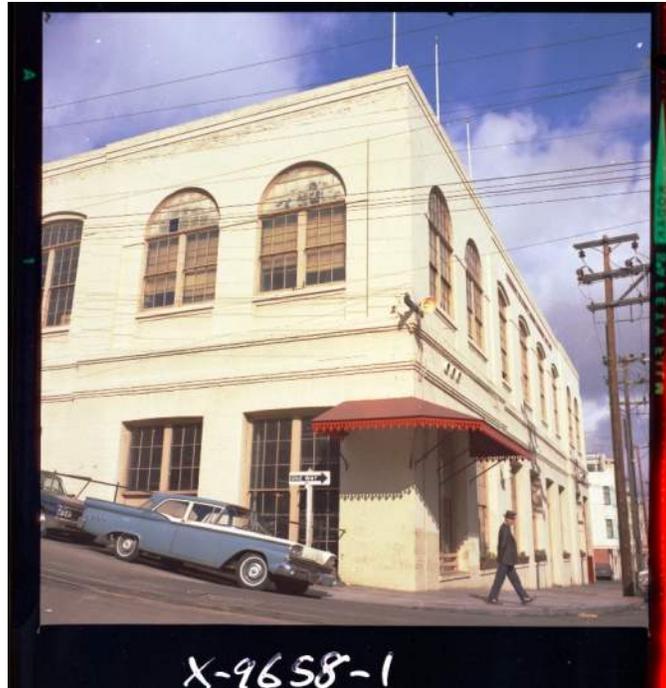
South (left) and east (right) façades of the Cable Car Barn after restoration, view from corner of Mason and Washington streets, 1965 (SFMTA Photo Collection and Archives).



South (left) and east (right) façades of the Cable Car Barn after restoration, view from corner of Mason and Washington streets, 1965 (SFMTA Photo Collection and Archives).



Ground floor of the Cable Car Barn at the corner of Mason and Washington streets, 1965 (SFMTA Photo Collection and Archives).



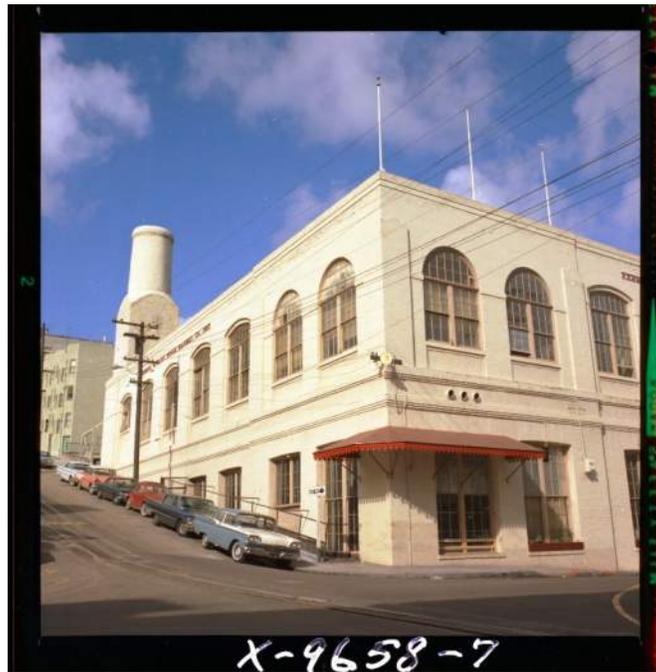
Southeast corner of the Cable Car Barn, view from the corner of Mason and Washington streets, 1966 (SFMTA Photo Collection and Archives).



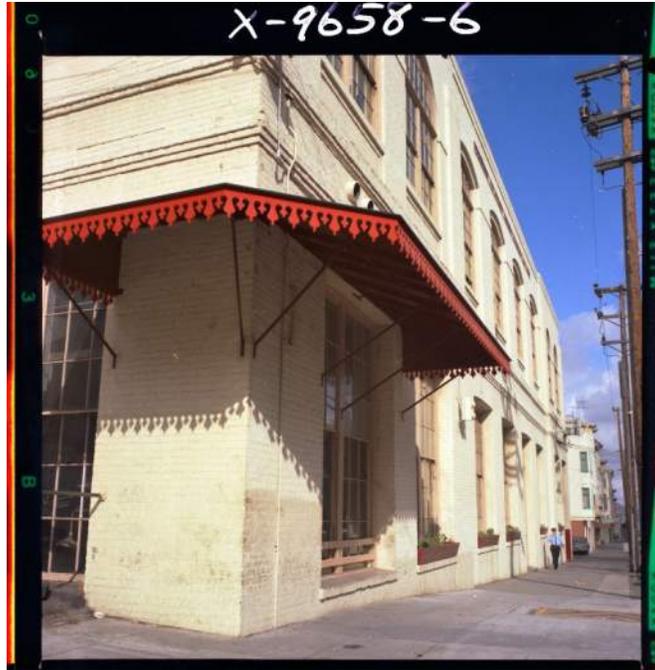
Former vehicle entrance at the east façade of the Cable Car Barn, view from Mason Street, 1966 (SFMTA Photo Collection and Archives).



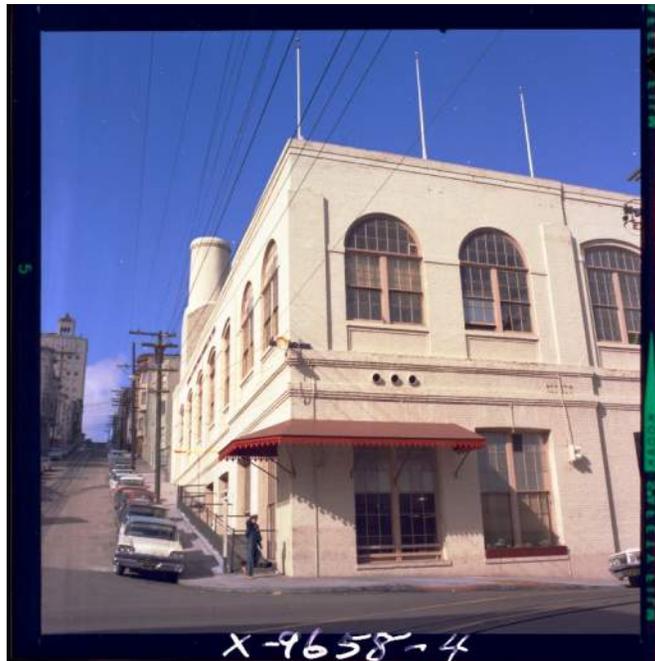
Former vehicle entrance and the south portion of the east façade of the Cable Car Barn, view from Mason Street, 1966 (SFMTA Photo Collection and Archives).



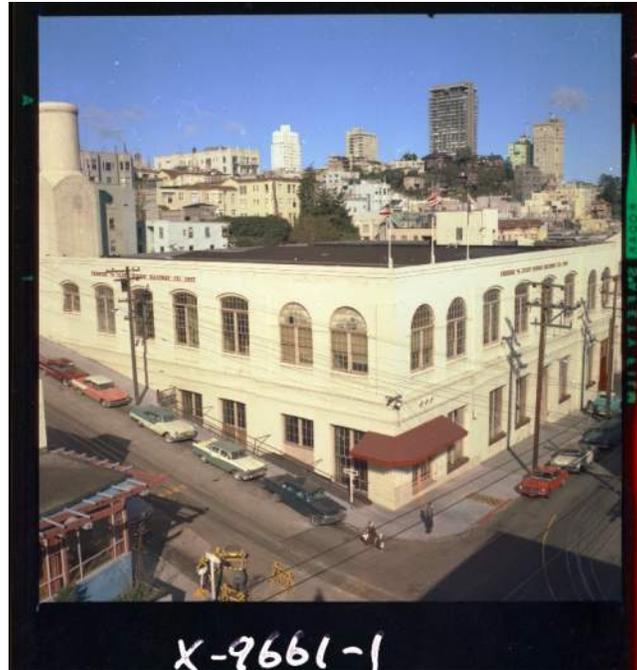
South (left) and east (right) façades of the Cable Car Barn, view from corner of Mason and Washington streets, 1966 (SFMTA Photo Collection and Archives).



Ground floor of the south (left) and east (right) façades of the Cable Car Barn, view from corner of Mason and Washington streets, 1966 (SFMTA Photo Collection and Archives).



South (left) and east (right) façades of the Cable Car Barn, view from corner of Mason and Washington streets, 1966 (SFMTA Photo Collection and Archives).



South (left) and east (right) façades of the Cable Car Barn, view from building at corner of Mason and Washington streets, 1966 (SFMTA Photo Collection and Archives).



South (left) façade of the Cable Car Barn, view from Washington Street, 1966 (SFMTA Photo Collection and Archives).



Cable car turntable at the rear of the Cable Car Barn, 1966 (SFMTA Photo Collection and Archives).



South (left) and east (right) façades of the Cable Car Barn during construction of the cable car museum, 1967 (SFMTA Photo Collection and Archives).



South (left) and east (right) façades of the Cable Car Barn during construction of the cable car museum, 1967 (SFMTA Photo Collection and Archives).



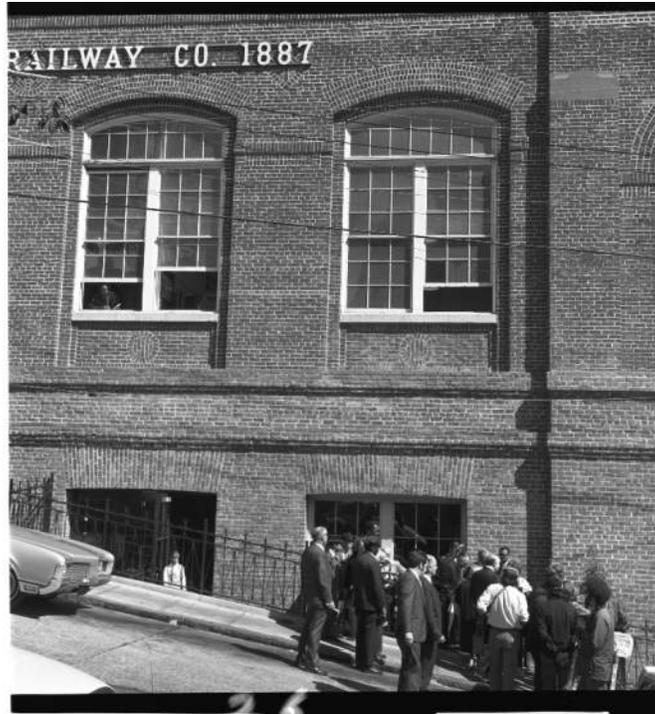
Interior of the Cable Car Barn with the cable turning equipment and museum mezzanine, 1967 (SFMTA Photo Collection and Archives).



Interior of the Cable Car Barn at the entrance to the museum mezzanine, 1967 (SFMTA Photo Collection and Archives).



Entrance to the cable car museum at the southeast corner of the east façade of the Cable Car Barn, view from corner of Mason and Washington streets, 1967 (SFMTA Photo Collection and Archives).



Secondary entrance to the cable car museum at the south façade of the Cable Car Barn, view from Washington Street, 1971 (SFMTA Photo Collection and Archives).



South portion of the east façade of the Cable Car Barn, view from Mason Street, 1971 (SFMTA Photo Collection and Archives).

Photo Collection and Archives



Washington Street cable car entrance and rear cable car yard (left), view from Washington Street, 1973 (SFMTA Photo Collection and Archives).



Rehabilitation of the Cable Car Barn with the east façade preserved and interior fully removed, view towards Mason Street, ca. 1980 (San Francisco Public Library, Historical Photograph Collection).



Rehabilitation of the Cable Car Barn with the east (left) façade, south (right) façade, and smokestack, view towards Washington Street, ca. 1980 (San Francisco Public Library, Historical Photograph Collection).



South (left) and east (right) façades of the Cable Car Barn, view from the corner of Washington and Mason streets, 1985 (SFMTA Photo Collection and Archives).

Cable Car Barn, San Francisco, CA
Historic Resource Evaluation

Appendix E: Building Permit Record



Architectural
Resources Group

*The site is on a lot bounded by
 Washington St. to the north, Mason St. to the east,
 and the street fronting the lot to the south.
 The lot is 100 feet wide and 150 feet deep.
 The proposed building is a two-story brick
 structure with a flat roof and a
 front porch. The building is to be
 constructed of brick and is to be
 finished with a light color.*

6881
 No.

BRICK BUILDING
 APPLICATION OF
 1201 MASON

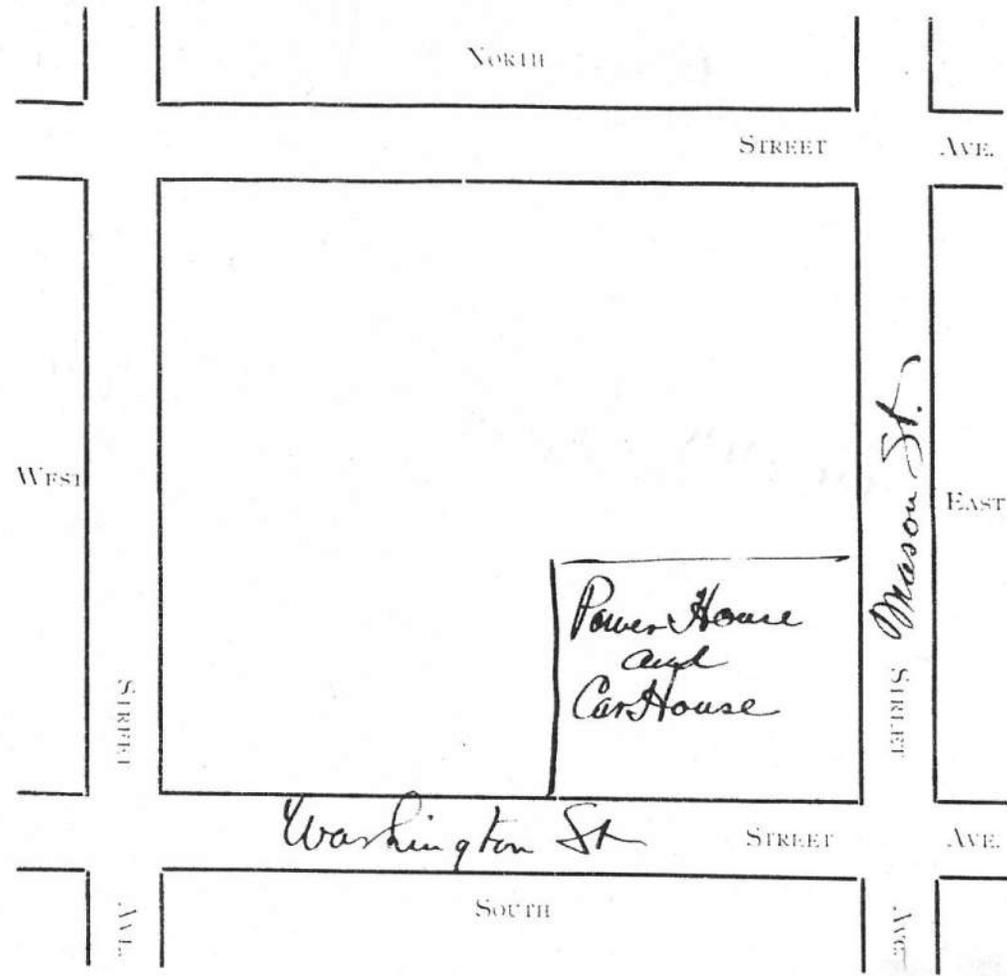
For Permit to Erect

Location
 Filed DEC 18 1906

Referred to Inspector.

DEC 26 1906

APPROVED:
J. P. Morgan
 Chief Building Inspector.



WRITE IN INK—FILE TWO COPIES

Applicant must indicate in ink correctly and distinctly on the back of this sheet, a diagram of the lot with street, alleys, location of existing buildings on the lot, if any, and location and dimensions of proposed buildings. Plans and Specifications must be fastened together.

APPLICATION FOR BUILDING PERMIT.

BRICK BUILDING

Application is hereby made to the Board of Public Works of the City and County of San Francisco for permission to build a *Power House and Cor House* on the lot situated *N.W. Cor Washington and Mason St*

in accordance with the plans and specifications submitted herewith.

All provisions of the building laws shall be complied with in the erection of said building, whether specified herein or not. Estimated cost of building \$ *15,000*

Building to be occupied as *Power House* by _____ families.

Size of Lot *137.5* feet front *137.5* feet rear *137.5* feet deep.

Size of proposed building *137.5 x 137.5*

Extreme height of building *48'*

If party walls are to be used, give thickness and height of stories *No party walls*

Are foundations to be on solid or filled ground? *Solid*

Foundations ~~will be~~ *Built before fire* Foundation walls ~~will be~~ *built before fire*

Concrete will be made of *no concrete* cement _____ parts. Sand _____ parts. Broken Stone _____ parts

Stone work laid in *no stone* mortar _____

Brick work laid in *Cement* mortar *one .. " 6 .. and lime paste*

Face brick work laid in *same* mortar _____

Face brick work. How bonded? *Header course every 6th course.*

| | WALLS | | | | PIERS OR COLUMNS | | JOISTS | | | GIRDERS | | |
|-------------|--------|----------|------------------------|-----|------------------|------|----------|------|--------------|----------|-------|--------------|
| | Height | Material | Thickness Side Feet | | Material | Size | Material | Size | Longest Span | Material | Size | Longest Span |
| Footings | ✓ | | | | | | | | | | | |
| Foundations | ✓ | | | | | | | | | | | |
| Basement | ✓ | | | | | | | | | | | |
| 1st story | 22' | Brick | 21" | 21" | Steel | King | 2x14 | O.P. | 12' | Steel | Truss | 13' |
| 2nd story | 15' | " | 17" | 17" | " | " | 2x12 | " | " | " | " | " |
| 3rd story | | | | | | | | | | | | |
| 4th story | | | | | | | | | | | | |
| 5th story | | | | | | | | | | | | |
| 6th story | | | | | | | | | | | | |
| 7th story | | | | | | | | | | | | |
| 8th story | | | | | | | | | | | | |
| 9th story | | | | | | | | | | | | |
| 10th story | | | | | | | | | | | | |

State size of bearing partitions on each floor.

| | MATERIAL | SIZES |
|-----------|----------|-------|
| 1st floor | Brick | 21" |
| 2nd " | " | 17" |



Wood joists on steel beams, 2" thick floor
 Construction of Wood truss roof Covered with tar 19 gravel 5 ply
 Steep roof construction of ——— Covered with ———
 Walls coped with Cement Copings of Brick with cement coping
 Partitions of Brick Stair Partitions of No partitions
 Light court walls of no courts
 Exterior columns of no exterior columns Protected with ———
 Interior columns of Steel and wood Protected with ———

Trusses supporting roofs, if of iron, describe Wood trusses

Flue linings none
 Boiler flue of sheet steel height of flue above roof 1-7' diam stack
 No. of Stairways, width and construction

Boiler-room location S.W. Cor of Building walls of boiler-room
 Ceiling and floor over boiler-room iron lath-3 coats plaster doors to boiler-room none
 Fire shutters none
 Bay windows, covered with none

Towers, domes or spires, size and extreme height above none level

Sky-lights, material, number and size none
 No. of elevators one where located in Car House
 Elevator enclosures of no enclosure
 Vaults under sidewalk Cable vaults

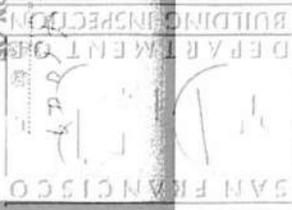
Retaining walls in before fire occurred thickness at top
 Areas, coal holes, etc., state if any, and where in before fire occurred

I hereby agree to save, indemnify and keep harmless the City and County of San Francisco against all liabilities, judgments, costs and expenses which may in anywise accrue against said city and county in consequence of the granting of this permit, or from the use or occupancy of any sidewalk, street or sub-sidewalk place by water, fire and all in all things strictly comply with the conditions of this permit.

Architect: A. H. Stevens
 Address: United Rail Road of San Francisco
 Building: American Hawaiian Eng & Const Co
 Address: 332 June St

By: Albert Cuss
 Chief Engineer

(NOTE—The owner's name must be signed by himself, or by his Architect or authorized Agent.)



Approved:

Zone 117th Street
CPC Section

Approved:

Alaska M. Grant
Department of City Planning

Approved:

Department of Public Health

Approved:

Department of Electricity

Approved:

Art Commission

Approved:

Boiler Inspector

Approved:

Robert W. ...
Bureau of Fire Prevention & Public Safety

Approved:

Henry Jones 10/5/60
Structural Engineer, Bureau of Building Inspection

Bureau of Engineering

REFER TO:

- Bureau of Engineering
- BRI Struct. Engineer
- Boiler Inspector
- Art Commission
- Dept. of Public Health

Approved SEP 22 1960

BLDG. FORM

No. 3
APPLICATION OF

CEJ

Owner

FOR PERMIT TO MAKE
ADDITIONS, ALTERATIONS or REPAIRS
TO BUILDING

Location 1221 Mission St

Total Cost \$ 10300

Filed 9-21-60 1960

Approved: SEP 22 1960

APPROVED
Dept. Public Works

OCT 6 - 1960

Alvin C. ...
SUPERINTENDENT
MUNICIPAL BUILDING INSPECTION

Superintendent, Bureau of Building Inspection

Permit No. 215817

Issued SEP 22 1960 1960

Workman's Compensation Insurance
Policy or Certificate filed with Central
Permit Bureau

No Workman's Compensation Insurance
Policy or Certificate on file for reason of
exclusion checked:

- (a) No one to be employed
- (b) Casual labor only to employed
- (c) Services or labor to be performed in
return for aid or sustenance only,
received from any religious, char-
itable or relief organization

Building Inspector, Bureau of Building Inspection
I agree to comply with all conditions or stipula-
tions of the various Bureaus or Departments
noted hereon.

Owner or Owner's Authorized Agent

OFFICIAL COPY

SAN FRANCISCO

DEPARTMENT OF PUBLIC WORKS
BUILDING INSPECTION

CENTRAL PERMIT BUREAU FORM

Write in Ink—File Two Copies

CITY AND COUNTY OF SAN FRANCISCO

DEPARTMENT OF PUBLIC WORKS
BLDG. FORM

RECEIVED
DEPT. OF PUBLIC WORKS
CENTRAL PERMIT BUREAU
1980 SEP 22 PM 3:17

APPLICATION FOR BUILDING PERMIT
ADDITIONS, ALTERATIONS OR REPAIRS

BUILDING INSPECTION

3

9-22-6019

Application is hereby made to the Department of Public Works of San Francisco for permission to build in accordance with the plans and specifications submitted herewith and according to the description and for the purpose hereinafter set forth:

- (1) Location: Nason & Washington St.
- (2) Total Cost \$ 10,300 (3) No. of stories 2 (4) Basement — Yes or No
- (5) Present use of building Cat barn (6) No. of families —
- (7) Proposed use of building Same (8) No. of families —
- (9) Type of construction 3 (10) Building Code Occupancy Classification 3
- (11) Any other building on lot no (Must be shown on plot plan if answer is Yes.) Yes or No
- (12) Does this alteration create an additional floor of occupancy No Yes or No
- (13) Does this alteration create an additional story to the building No Yes or No
- (14) Electrical work to be performed Yes Plumbing work to be performed Yes Yes or No
- (15) Ground floor area of building — sq. ft. (16) Height of building 60 ft.
- (17) Detailed description of work to be done Alteration to interior wall - plan attached

(18) No portion of building or structure or scaffolding used during construction, to be closer than 6'0" to any wire containing more than 750 volts. See Sec. 385, California Penal Code.

(19) Supervision of construction by T. M. Cormick Address —

(20) General contractor T. M. Cormick California License No. —
Address —

(21) Architect — California Certificate No. —
Address —

(22) Engineer — California Certificate No. —
Address —

(23) I hereby certify and agree that if a permit is issued for the construction described in this application, all the provisions of the permit and all laws and ordinances applicable thereto will be complied with. I further agree to save San Francisco and its officials and employees harmless from all costs and damages which may accrue from use or occupancy of the sidewalk, street or subsidewalk space or from anything else in connection with the work included in the permit. The foregoing covenant shall be binding upon the owner of said property, the applicant, their heirs, successors and assigns.

(24) Owner C. F. J. (Phone 604-8271)
Address — (For Contact by Bureau)

By — Address —
Owner's Authorized Agent to be Owner's Authorized Architect, Engineer or General Contractor.

PERMIT OF OCCUPANCY MUST BE OBTAINED ON COMPLETION OF HOTEL OR APARTMENT HOUSE PURSUANT TO SEC. 808 SAN FRANCISCO BUILDING CODE.

BLDG. FORM

3

APPLICATION OF

City of S.F.

Lessee/Owner

FOR PERMIT TO MAKE

ADDITIONS, ALTERATIONS or REPAIRS

TO BUILDING

1301 Mason St

Location N.W. Corner Wash-

ington & Mason St

Total Cost \$ 1500.00

APR 13 1961

Filed _____ 19

APPROVED:

APPROVED
Dept. Public Works

APR 21 1961

Robert C. Long
SUPERINTENDENT
BUREAU BUILDING INSPECTION

Superintendent, Bureau of Building Inspection

Permit No. 272515

APR 24 1961

Issued _____ 19

REFER TO:

- Bureau of Engineering
- BBI Struct. Engineer
- Boiler Inspector
- Art Commission
- Dept. of Public Health
- Dept. of Electricity
- Redevelopment Agency
- Parking Authority

Approved April 21 1961

Provided the following conditions are complied with:

Approved:

Zone not checked

GPC Setbacks

Department of Public Health

Approved:

Hollis W. Ayres
Department of City Planning

Department of Electricity

Approved:

Art Commission

Approved:

Ed. C. Bull
Bureau of Fire Prevention & Public Safety

Boiler Inspector

Approved:

Redevelopment Agency

Approved:

Civil Engineer, Bureau of Building Inspection

Approved:

Parking Authority

No portion of building or structure or scaffolding used during construction to be closer than 6'0" to any wire containing more than 750 volts. See Sec. 385 California Penal Code.

Bureau of Engineering

Building Inspector, Bureau of Building Inspection

I agree to comply with all conditions or stipulations of the various Bureaus or Departments noted herein.

Owner or Owner's Authorized Agent

OFFICIAL COPY

SAN FRANCISCO
CENTRAL PERMIT BUREAU F435

Write in Ink—File Two Copies

CITY AND COUNTY OF SAN FRANCISCO

RECEIVED
DEPT. OF PUBLIC WORKS

DEPARTMENT OF PUBLIC WORKS

DEPARTMENT BLDG. FORM
BUILDING INSPECTION

APPLICATION FOR BUILDING PERMIT
ADDITIONS, ALTERATIONS OR REPAIRS

CENTRAL PERMIT BUREAU

BUILDING INSPECTION

6-18 1961

Application is hereby made to the Department of Public Works of San Francisco for permission to build in accordance with the plans and specifications submitted herewith and according to the description and for the purpose hereinafter set forth:

- (1) Location N.W. Corner Washington & Mason Sts
- (2) Total Cost (\$) 1500 (3) No. of Stories (4) Basement or Cellar
- (5) Present Use of building Car Garage (6) No. of families yes or no
- (7) Proposed Use of building " " (8) No. of families
- (9) Type of construction (10) Proposed Building Code Classification
- (11) Any other building on lot NO (must be shown on plot plan if answer is yes.) yes or no
- (12) Does this alteration create an additional story to the building? NO yes or no
- (13) Does this alteration create a horizontal extension to the building? NO yes or no
- (14) Does this alteration constitute a change of occupancy? NO yes or no
- (15) Electrical work to be performed yes (16) Plumbing work to be performed yes yes or no
- (17) Automobile runway to be altered or installed NO yes or no
- (18) Sidewalk over sub-sidewalk space to be repaired or altered NO yes or no
- (19) Write in description of all work to be performed under this application:
(Reference to plans is not sufficient)

additional wash room

- (20) Supervision of construction by Address
- (21) General Contractor Robert L. Sage California License No. 185893
Address 1050 CARMON AVE Berkeley
- (22) Architect or Engineer P.V. Eng Bureau California Certificate No.
(for design) Address
- (23) Architect or Engineer P.V. Eng Bureau California Certificate No.
(for construction) Address

(24) I hereby certify and agree that if a permit is issued for the construction described in this application, all the provisions of the permit and all laws and ordinances applicable thereto will be complied with. I further agree to save San Francisco and its officials and employees harmless from all costs and damages which may accrue from use or occupancy of the sidewalk, street or sub-sidewalk space or from anything else in connection with the work included in the permit. The foregoing covenant shall be binding upon the owner of said property, the applicant, their heirs, successors and assigns.

(25) Owner City of S.F. P.O. Comm (Phone LA-4-9064)

Address
By Robert L. Sage Address 1050 Carmon Ave
Owner's Authorized Agent to Owner's Authorized Architect, Engineer or General Contractor.

CERTIFICATE OF FINAL COMPLETION AND/OR PERMIT OF OCCUPANCY MUST BE OBTAINED ON COMPLETION OF WORK OR ALTERATION INVOLVING AN ENLARGEMENT OF THE BUILDING OR A CHANGE OF OCCUPANCY PURSUANT TO SEC. 808 AND 809, SAN FRANCISCO BUILDING CODE, BEFORE BUILDING IS OCCUPIED.

Pursuant to Sec. 304, San Francisco Building Code, the building permit shall be posted on job. Owner is responsible for approved plans and application being kept at building site.

APPROVAL OF THIS APPLICATION DOES NOT CONSTITUTE AN APPROVAL FOR THE ELECTRICAL WIRING OR PLUMBING INSTALLATIONS. A SEPARATE PERMIT FOR THE WIRING AND PLUMBING MUST BE OBTAINED.

THIS IS NOT A BUILDING PERMIT. NO WORK SHALL BE STARTED UNTIL A BUILDING PERMIT IS ISSUED.

FOR DEPARTMENTAL USE ONLY

CITY AND COUNTY OF SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS

APPLICATION FOR BUILDING PERMIT ADDITIONS, ALTERATIONS OR REPAIRS

BLDG. FORM 3 9-8-82

TITLE 24 - Y N HANDICAPPED ACCESS

APPROVED MED CITY PUBLIC WORKS MAR - 2 1983

APPLICATION IS HEREBY MADE TO THE DEPARTMENT OF PUBLIC WORKS OF SAN FRANCISCO FOR PERMISSION TO BUILD IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS SUBMITTED HERewith AND ACCORDING TO THE DESCRIPTION AND FOR THE PURPOSE HEREINAFTER SET FORTH

STREET ADDRESS OF JOB: San Francisco Cable Car Barn Mason and Washington Street San Francisco, CA ESTIMATED COST OF JOB: \$12,500,000

DATE FILED: 9-8-82 PERMIT NO: 498143

DESCRIPTION OF EXISTING BUILDING AND PROPOSED ALTERATIONS. Includes sections for (14) TYPE OF CONSTRUCTION, (15) NUMBER OF STORES OF OCCUPANCY, (16) PROPOSED USE, (17) BLDG CODE, (18) OCCUP CLASS, (19) NO OF DWELLING UNITS, (20) GENERAL CONTRACTOR, (21) ARCHITECT OR ENGINEER, (22) CONSTRUCTION LENDER, (23) OWNER - LESSEE, and (24) WRITE A DESCRIPTION OF ALL WORK TO BE PERFORMED.

IMPORTANT NOTICES: No change shall be made in the character of the occupancy or use without first obtaining a Building Permit... Grade lines as shown on drawings accompanying this application are assumed to be correct...

CHECK APPROPRIATE BOX: OWNER, ARCHITECT, ENGINEER, LESSEE, AGENT WITH POWER OF ATTORNEY, CONTRACTOR, ATTORNEY IN FACT

APPLICANT'S CERTIFICATION: I HEREBY CERTIFY AND AGREE THAT IF A PERMIT IS ISSUED FOR THE CONSTRUCTION DESCRIBED IN THIS APPLICATION...

NOTICE TO APPLICANT: HOLD HARMLESS CLAUSE. The Permittee(s) by acceptance of this permit, agrees to indemnify and hold harmless the City and County of San Francisco from and against any and all claims, demands and actions for damages resulting from operations under this permit...

Applicant's Signature: [Signature] Date: 9-8-82

OFFICIAL COPY

SAN FRANCISCO

DEPARTMENT OF BUILDING INSPECTION

CONDITIONS AND STIPULATIONS

APPROVED FOR ROUTING ONLY

[Signature] 4/14/82
BUILDING INSPECTOR, BUR. OF BLDG. INSPECTION

APPROVED: CoFA Approved CA 81.6 5/30/81
EE 79.55

PROJECT HAS BEEN DETERMINED NOT TO HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT

[Signature] SEP 12 1982
DEPARTMENT OF CITY PLANNING

APPROVED: as per plans. Submit sprinkler plans prior to installation. Supervised system

PLEASE NOTIFY SFFD AT START OF WORK CONTACT FIRE INSPECTOR 861-8000 EXT. 311

[Signature] 12-7-82
BUREAU OF FIRE PREVENTION & PUBLIC SAFETY

APPROVED: as noted on plan

SPECIAL INSPECTION REQUIRED PER CPSC SECTION 20.1.A.5.C.

[Signature] 2/22/83
CIVIL ENGINEER, BUR. OF BLDG. INSPECTION

APPROVED:

[Signature] 1-5-83
BUREAU OF ENGINEERING

APPROVED:

DEPARTMENT OF PUBLIC HEALTH

APPROVED:

REDEVELOPMENT AGENCY

APPROVED:

[Signature] 2/8/83
RESIDENTIAL INSPECTOR, BUR. OF BLDG. INSPECTION

APPROVED:

PC Plan checker. Amended

[Signature] 10/8/82

I AGREE TO COMPLY WITH ALL CONDITIONS OR STIPULATIONS OF THE VARIOUS BUREAUS OR DEPARTMENTS NOTED ON THIS APPLICATION, AND ATTACHED STATEMENTS OF CONDITIONS OR STIPULATIONS, WHICH ARE HEREBY MADE A PART OF THIS APPLICATION.

NUMBER OF ATTACHMENTS

[Signature] 8/25/82
SIGNATURE OF OWNER, LESSEE OR AUTHORIZED AGENT FOR OWNER OR LESSEE

DATE: _____

REASON: _____

NOTIFIED MR. _____

HOLD SECTION - NOTE DATES AND NAMES OF ALL PERSONS NOTIFIED DURING PROCESSING



CITY & COUNTY OF SAN FRANCISCO

APPLICATION FILING FEE - PLAN CHECKING RECEIPT

115483

RECEIVED OF

BUILDING APPLICATION NUMBERS

FCC

22-11431

FEE FOR APPLICATION FILING AND CHECKING PLANS PRESCRIBED BY SAN FRANCISCO BUILDING CODE

| | DATE | ESTIMATED COST | FEE | REVENUE NO |
|--------------------|---------|-----------------|-----------|------------|
| APPLICATION FILING | | XXXX | XXXX | 7223 |
| PLAN CHECKING | 1-21-83 | | 11,115-25 | 7224 |

| FINAL PLAN CHECKING | FINAL COST | FEE | RECEIVED |
|---------------------|------------|-----|----------|
| | | | |

DEPARTMENT OF PUBLIC WORKS
CENTRAL PERMIT BUREAU

3. BUREAU APPL.

BY: A

OFFICIAL COPY

SAN FRANCISCO
DEPARTMENT OF
BUILDING INSPECTION

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
CENTRAL PERMIT BUREAU

GENERAL
RECEIPT
NO. 35032

1-21-23

RECEIVED FROM:

ppd 320 7431

PAYMENT RECEIVED FOR THE ITEMS INDICATED:

| NUMBER | DESCRIPTION | AMOUNT |
|--------|-------------|----------|
| | EXPFEE | 15.00 |
| | STAMP | 2,000.00 |
| | SMP | 1,250.00 |
| | | |
| | | |
| | | 3,265.00 |

ACCOUNTING

CENTRAL PERMIT BUREAU

BY AC

WAIVER OF TIME RESTRICTION ON REQUESTS
FOR ADDITIONAL INFORMATION

I hereby waive all time restrictions relative to submission of additional information. This waiver applies to those provisions of law which limit the City and County of San Francisco's ability to require further information for this project application. These provisions of law include Sections 65943 and 65944 of Chapter 4.5 of Division 1 of Title 7 of the Government Code (Review and Approval of Development Projects).

[Signature]
Applicant's/Owner's Signature

PUBLIC UTILITIES COMMISSION UTILITY ENGINEERING BUREAU
Type or Print Name

SEPTEMBER 3, 1982
Date

Application No.

693 VERMONT STREET, SAN FRANCISCO CA 94107
Address



CENTRAL PERMIT BUREAU
450 McAllister Street
San Francisco, CA 94102

Appl. # 08207431
Address 1201 Mosco
St. Francisco
Building Permit

LICENSED CONTRACTOR'S STATEMENT

Licensed Contractor's Declaration

Pursuant to the Business and Professions Code Sec. 7031.5, I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License # 323829 License Class A, B

Date 11-18-82 Contractor (print) Tutor-Saliba
212185 Ave (signature) Carl F. Saliba

Owner-Builder Declaration

I hereby affirm that I am exempt from the Contractor's License Law, Business and Professions Code (Sec. 7031.5). (Mark the appropriate box below.)

- I, as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale (Sec. 7044). I further acknowledge that I understand and agree that in the event that any work is commenced contrary to the representations contained herein, that the Permit herein applied for shall be deemed cancelled.
- I, as owner am contracting with licensed contractors to architect construct this project (Sec. 7044). I certify that at the time such contractors are selected I will have them file a copy of this form (Licensed Contractors Declaration) prior to the commencement of any work. I further acknowledge that I understand and agree that, in the event that said contractors fail to file a copy of the Declaration with the Central Permit Bureau, that the Permit herein applied for shall be deemed cancelled.
- I am exempt under Business and Professions Code Sec. _____

Reason _____

Date _____ Owner (print) _____

(signature) _____

NOTICE: "Any violation of the Bus. & Prof. Code Sec. 7031.5 by any permit applicant shall be subject to a civil penalty of not more than five hundred dollars (\$500)." Bus. & Prof. Code Sec. 7031.5

OFFICIAL COPY

SAN FRANCISCO

CONDITIONS AND STIPULATIONS

DEPARTMENT OF BUILDING INSPECTION

REFER TO:

APPROVED:

The approval of this application and issuance of permit applies to specified work only and does not constitute an approval of the building.

Robert Roberts 10/14/82
BUILDING INSPECTOR, BUR. OF BLDG. INSP.

DATE:

REASON:

NOTIFIED MR.

APPROVED:

Malina L. Perovodnik
DEPARTMENT OF CITY PLANNING

DATE:

REASON:

NOTIFIED MR.

EXEMPT FROM ENVIRONMENTAL REVIEW
NOV 24 1982

APPROVED:

Robert Quinn 12/1/82
BUREAU OF FIRE PREVENTION & PUBLIC SAFETY

DATE:

REASON:

NOTIFIED MR.

APPROVED:

CIVIL ENGINEER, BUR. OF BLDG. INSPECTION

DATE:

REASON:

NOTIFIED MR.

APPROVED:

BUREAU OF ENGINEERING

DATE:

REASON:

NOTIFIED MR.

APPROVED:

DEPARTMENT OF PUBLIC HEALTH

DATE:

REASON:

NOTIFIED MR.

APPROVED:

REDEVELOPMENT AGENCY

DATE:

REASON:

NOTIFIED MR.

APPROVED:

RESIDENTIAL ENV. INSPECTOR, DIV. OF APT. & HOTEL INSP., B.B.I.

DATE:

REASON:

NOTIFIED MR.

APPROVED:

10/14/82
[Signature]

DATE:

REASON:

NOTIFIED MR.

I AGREE TO COMPLY WITH ALL CONDITIONS OR STIPULATIONS OF THE VARIOUS BUREAUS OR DEPARTMENTS NOTED ON THIS APPLICATION, AND ATTACHED STATEMENTS OF CONDITIONS OR STIPULATIONS, WHICH ARE HEREBY MADE A PART OF THIS APPLICATION.

NUMBER OF ATTACHMENTS

Carroll Clark 12/10/82
SIGNATURE OF OWNER, LESSEE OR AUTHORIZED AGENT FOR OWNER OR LESSEE

HOLD SECTION - NOTE DATES AND NAMES OF ALL PERSONS NOTIFIED DURING PROCESSING

OFFICIAL COPY



WAIVER OF TIME RESTRICTION ON REQUESTS
FOR ADDITIONAL INFORMATION

I hereby waive all time restrictions relative to submission of additional information. This waiver applies to those provisions of law which limit the City and County of San Francisco's ability to require further information for this project application. These provisions of law include Sections 65943 and 65944 of Chapter 4.5 of Division 1 of Title 7 of the Government Code (Review and Approval of Development Projects).

[Handwritten Signature]

Applicant's/Owner's Signature

PUBLIC UTILITIES COMMISSION UTILITY
Type or Print Name ENGINEERING BUREAU

OCTOBER 8, 1982
Date

Application No.

693 VERMONT STREET, SAN FRANCISCO, CA. 94107
Address



CERTIFICATION OF AUTHORIZED AGENT

I hereby certify that for the purpose of filing an application for a building or other permit with the Central Permit Bureau, or completion of any form related to the S.F. Building Code, or to City and County ordinances and regulations, or to State laws and codes, I am the agent of the owner and am authorized to sign all documents connected with this application or permit.

I declare under penalty of perjury that the foregoing is true and correct.

R. S. Rattelli
Applicant's Signature

Ralph C Rattelli
Type or Print Name

PO721285 cal DL
Identification (Drivers Lic. No., etc.)

City & County of S.F. - P.U.C.
Owner/Lessee

10/8/82
Date



WAIVER OF TIME RESTRICTION ON REQUESTS
FOR ADDITIONAL INFORMATION

I hereby waive all time restrictions relative to submission of additional information. This waiver applies to those provisions of law which limit the City and County of San Francisco's ability to require further information for this project application. These provisions of law include Sections 65943 and 65944 of Chapter 4.5 of Division 1 of Title 7 of the Government Code (Review and Approval of Development Projects).

[Handwritten Signature]
Applicant's/Owner's Signature

PUBLIC UTILITIES COMMISSION UTILITY
Type or Print Name ENGINEERING BUREAU

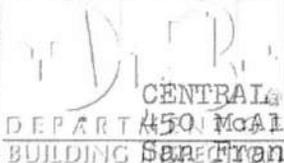
OCTOBER 8, 1982
Date

08208280 10/8/82
Application No.

693 VERMONT STREET, SAN FRANCISCO, CA. 94107
Address

OFFICIAL COPY

SAN FRANCISCO



CENTRAL PERMIT BUREAU
DEPARTMENT OF PUBLIC WORKS
BUILDING DEPARTMENT
150 McAllister Street
San Francisco, CA 94102

Appl. # CE208280
CE207431
Address 1201 Mason St.
S.F., Ca. 94108

LICENSED CONTRACTOR'S STATEMENT

Licensed Contractor's Declaration

Pursuant to the Business and Professions Code Sec. 7031.5, I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License _____ License Class _____

Date _____ Contractor (print) _____

(signature) _____

Owner-Builder Declaration

I hereby affirm that I am exempt from the Contractor's License Law, Business and Professions Code (Sec. 7031.5). (Mark the appropriate box below.)

- I, as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale (Sec. 7044). I further acknowledge that I understand and agree that in the event that any work is commenced contrary to the representations contained herein, that the Permit herein applied for shall be deemed cancelled.
- I, as owner am contracting with licensed contractors to construct this project (Sec. 7044). I certify that at the time such contractors are selected I will have them file a copy of this form (Licensed Contractors Declaration) prior to the commencement of any work. I further acknowledge that I understand and agree that, in the event that said contractors fail to file a copy of the Declaration with the Central Permit Bureau, that the Permit herein applied for shall be deemed cancelled.

I am exempt under Business and Professions Code Sec. _____

Reason City Governmental Agency

Date Oct 8, 1982 Owner (print) Public Utilities Comm.

(signature) [Signature]

NOTICE: "Any violation of the Bus. & Prof. Code Sec. 7031.5 by any permit applicant shall be subject to a civil penalty of not more than five hundred dollars (\$500)." Bus. & Prof. Code Sec. 7031



CERTIFICATION OF AUTHORIZED AGENT

I hereby certify that for the purpose of filing an application for a building or other permit with the Central Permit Bureau, or completion of any form related to the S.F. Building Code, or to City and County ordinances and regulations, or to State laws and codes, I am the agent of the owner and am authorized to sign all documents connected with this application or permit.

I declare under penalty of perjury that the foregoing is true and correct.

Harry Chin
Applicant's Signature

HARRY CHIN
Type or Print Name

DRIVER LICENSE # 50368462
Identification (Drivers Lic. No., etc.)

PUBLIC UTILITIES COMMISSION
Owner/Lessee

DEC 10, 1982
Date

OFFICIAL COPY



Tutor-Saliba

Contractors



Engineers

15901 OLDEN STREET • SYLMAR, CALIFORNIA 91342
TELEPHONE: (213) 362-8391

December 10, 1982

Central Permit Bureau
450 McAllister Street
San Francisco, California 94102

Attention: Barbara Johnson

This is to authorize Mr. Harry Chin of O'Brien-Kreitzberg & Associates, Inc., to sign all forms related to picking up Permit No. A208280.

Tutor-Saliba Contractor's License is 323829, Type A,B with expiration date of September 30, 1983.

Very truly yours,

Arturo D. Diaz
Project Manager

Tutor-Saliba
Cable Car Barn Rehabilitation
1265 Mason Street
San Francisco, California 94108

cc: Earl F. Runion
District Manager

Tutor-Saliba

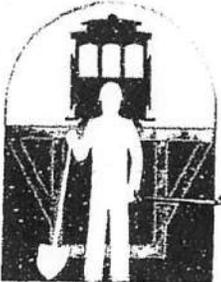
ADD:s1

A Project of the City and
County of San Francisco
Public Utilities Commission

Harry Chin
Resident Engineer
Cable Car Barn/Loop

O'Brien-Kreitzberg & Associates, Inc.
Construction Management
Washington & Mason Streets
San Francisco CA 94108
Telephone 415/776-8990

Recorded Information 644 3227



Cable Car System
Department of Public Works

OFFICIAL COPY

FOR DEPARTMENTAL USE ONLY
 SAN FRANCISCO
 DEC 06 1982
 APPROVED FOR ISSUANCE
 DEPARTMENT OF BUILDING INSPECTION
 APPROVED
 Dept. Public Works

FILE 24
 DEC 08 1982
 HANICAPPED ACCESS
 SUPERINTENDENT
 DEPT. BUILDING INSPECTION

12-31-82
 DATE FILED 11-16-82
 PERMIT NO. 495902
 FILING FEE RECEIVED AND
 114572
 ISSUED DEC 08 1982

CITY AND COUNTY OF SAN FRANCISCO
 DEPARTMENT OF PUBLIC WORKS

APPLICATION FOR BUILDING PERMIT
 ADDITIONS, ALTERATIONS OR REPAIRS

APPLICATION IS HEREBY MADE TO THE DEPARTMENT OF PUBLIC WORKS
 OF SAN FRANCISCO FOR PERMISSION TO BUILD IN ACCORDANCE WITH
 THE PLANS AND SPECIFICATIONS SUBMITTED HEREWITH AND ACCORDING
 TO THE DESCRIPTION AND FOR THE PURPOSE HEREINAFTER SET FORTH:

(1) STREET ADDRESS OF JOB:
 San Francisco Cable Car Barn
 Mason and Washington 1201 Mason ST.
 San Francisco, California

(3) ESTIMATED COST OF JOB.
 \$473,000.00

APPLICATION NO.
 08209515

| DESCRIPTION OF EXISTING BUILDING | | | | | | | | | |
|---|---|---|---|--|---|---|---|--|---|
| (4A) TYPE OF CONSTR. 1-hr <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> | (5A) NUMBER OF STORIES OF OCCUPANCY 2 | (6A) NUMBER OF BASEMENTS AND CELLARS 0 | (7A) PRESENT USE Cable Car Stor. Maint. & Mach. | (8A) BLDG CODE OCCUP CLASS B-3, F-2, G | (9A) NO OF DWELLING UNITS 0 | DESCRIPTION OF BUILDING AFTER PROPOSED ALTERATION | | | |
| (4) TYPE OF CONSTR. 1-hr <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> | (5) NUMBER OF STORIES OF OCCUPANCY 2 | (6) NUMBER OF BASEMENTS AND CELLARS 0 | (7) PROPOSED USE: Cable Car Stor. Maint. & Mach. | (8) BLDG CODE OCCUP CLASS B-3, F-2, G | (9) NO OF DWELLING UNITS 0 | (10A) DOES THIS ALTERATION CREATE ADDITIONAL STORY TO BUILDING? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (10) IF YES, STATE NEW HEIGHT AT CENTER LINE OF FRONT FT. _____ | (11A) DOES THIS ALTERATION CREATE DECK OR HORIZ EXTENSION TO BUILDING? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (11) IF YES, STATE NEW GROUND FLOOR AREA SQ FT. _____ |
| (14) WILL SIDEWALK OVER SUB-SIDEWALK SPACE BE REPAIRED OR ALTERED? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> | (15) WILL BUILDING EXTEND BEYOND PROPERTY LINE? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (16) IS AUTO RUNWAY TO BE CONSTRUCTED OR ALTERED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (17) WILL STREET SPACE BE USED DURING CONSTRUCTION? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> | (19) ANY OTHER EXISTING BLDG ON LOT? IF YES, SHOW ON PLOT PLAN YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (20) DOES THIS ALTERATION CONSTITUTE A CHANGE OF OCCUPANCY? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (21) ELECTRICAL WORK TO BE PERFORMED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (22) PLUMBING WORK TO BE PERFORMED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (23) GENERAL CONTRACTOR Tutor-Saliba, Inc. 15901 Olden Street, Sylmar, California | |
| (24) ARCHITECT OR ENGINEER (DESIGN <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> Chin & Hensolt Engineers, Inc. 246 First Street, San Francisco, California | | (25) CONSTRUCTION LENDER (ENTER NAME AND BRANCH DESIGNATION IF ANY. IF THERE IS NO KNOWN CONSTRUCTION LENDER, ENTER UNKNOWN) Unknown | | (26) OWNER - LESSEE (CROSS OUT ONE) Public Utilities Commission, 693 Vermont Street, San Francisco, California | | (27) WRITE IN DESCRIPTION OF ALL WORK TO BE PERFORMED UNDER THIS APPLICATION (REFERENCE TO PLANS IS NOT SUFFICIENT): Structural shoring for exterior walls during building alteration. | | | |

IMPORTANT NOTICES

No change shall be made in the character of the occupancy or use without first obtaining a Building Permit authorizing such change. See Sec. 103, 104.B, 104.B.1, 104.C, 502, 502.1, San Francisco Building Code and Sec. 104, San Francisco Housing Code. No portion of building or structure or scaffolding used during construction, to be closer than 6'0" to any wire containing more than 750 volts. See Sec. 385, California Penal Code.
 Pursuant to Sec. 302 A.8, San Francisco Building Code, the building permit shall be posted on the job. The owner is responsible for approved plans and application being kept at building site.
 Grade lines as shown on drawings accompanying this application are assumed to be correct. If actual grade lines are not the same as shown revised drawings showing correct grade lines, cuts and fills together with complete details of retaining walls and wall footings required must be submitted to this bureau for approval.
 ANY STIPULATION REQUIRED HEREIN OR BY CODE MAY BE APPEALED.
 BUILDING NOT TO BE OCCUPIED UNTIL CERTIFICATE OF FINAL COMPLETION IS POSTED ON THE BUILDING OR PERMIT OF OCCUPANCY GRANTED, WHEN REQUIRED.
 APPROVAL OF THIS APPLICATION DOES NOT CONSTITUTE AN APPROVAL FOR THE ELECTRICAL WIRING OR PLUMBING INSTALLATIONS. A SEPARATE PERMIT FOR THE WIRING AND PLUMBING MUST BE OBTAINED. SEPARATE PERMITS ARE REQUIRED IF ANSWER IS "YES" TO ANY OF ABOVE QUESTIONS (15) (16) (17) (20) (21) or (22). THIS IS NOT A BUILDING PERMIT. NO WORK SHALL BE STARTED UNTIL A BUILDING PERMIT IS ISSUED.
 In dwellings all insulating materials must have a clearance of not less than two inches from all electrical wires or equipment.

CHECK APPROPRIATE BOX
 OWNER ARCHITECT ENGINEER
 LESSEE AGENT WITH POWER OF ATTORNEY
 CONTRACTOR ATTORNEY IN FACT

APPLICANT'S CERTIFICATION

I HEREBY CERTIFY AND AGREE THAT IF A PERMIT IS ISSUED FOR THE CONSTRUCTION DESCRIBED IN THIS APPLICATION, ALL THE PROVISIONS OF THE PERMIT AND ALL LAWS AND ORDINANCES THERETO WILL BE COMPLIED WITH.

NOTICE TO APPLICANT

HOLD HARMLESS CLAUSE: The Permittee(s) by acceptance of this permit, agree(s) to indemnify and hold harmless the City and County of San Francisco from and against any and all claims, demands and actions for damages resulting from operations under this permit, regardless of negligence of the City and County of San Francisco, and to assume the defense of the City and County of San Francisco against all such claims, demands and actions.
 In conformity with the provisions of Section 3800 of the Labor Code of the State of California, the applicant shall have on file, or file with the Central Permit Bureau, either Certificate (I) or (II) or (III) designated below or shall indicate item (IV) or (V) or (VI) below, whichever is applicable. If however, item (VI) is checked then item (V) must be checked as well. Mark the appropriate method of compliance below:
 I. Certificate of Consent to Self-Insure issued by the Director of Industrial Relations.
 II. Certificate of Workman's Compensation Insurance issued by an admitted insurer
 III. An exact copy or duplicate of (II) certified by the Director or (III) certified by the insurer.
 IV. The cost of the work to be performed is \$100 or less.
 V. I certify that in the performance of the work for which this Permit is issued, I shall not employ any person in any manner so as to become subject to the workman's compensation laws of California. I further acknowledge that I understand, in the event that I should become subject to the workman's compensation provisions of the Labor Code of California and fail to comply therewith with the provisions of Section 3800 of the Labor Code, that the Permit herein applied for shall be deemed revoked.
 VI. I certify as the owner (or the agent of the owner) that in the performance of the work for which this Permit is issued, I will employ a contractor who complies with the workman's compensation laws of California and who has on file, or prior to the commencement of any work will file, with the Central Permit Bureau evidence that workman's compensation insurance is carried.

Applicant's Signature: R. B. Raffaeli Date: 11/16/82

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SAN FRANCISCO

CONDITIONS AND STIPULATIONS

DEPARTMENT OF BUILDING INSPECTION

APPROVED:

TO:

0311212

12

APPROVED:

LPAB

CATEGORICALLY EXEMPT FROM ENVIRONMENTAL REVIEW

DEPARTMENT OF CITY PLANNING

DEC 6 1982

APPROVED:

~~XXXXXXXXXX~~

BUREAU OF FIRE PREVENTION & PUBLIC SAFETY

APPROVED:

as noted on plan

SPECIAL INSPECTION REQUIRED PER SPEC SECTION 305.A,B,C.

CIVIL ENGINEER, BUR. OF BLDG. INSPECTION

APPROVED:

BUREAU OF ENGINEERING

APPROVED:

DEPARTMENT OF PUBLIC HEALTH

APPROVED:

REDEVELOPMENT AGENCY

APPROVED:

RESIDENTIAL ENV. INSPECTOR, DIV. OF APT. & HOTEL INSP., B.B.I

APPROVED:

PC checker

R. S. Russell 11/22/82

SIGNATURE OF OWNER, LESSEE OR AUTHORIZED AGENT FOR OWNER OR LESSEE.

DATE:

REASON:

NOTIFIED MR.

HOLD SECTION — NOTE DATES AND NAMES OF ALL PERSONS NOTIFIED DURING PROCESSING

I AGREE TO COMPLY WITH ALL CONDITIONS OR STIPULATIONS OF THE VARIOUS BUREAUS OR DEPARTMENTS NOTED ON THIS APPLICATION, AND ATTACHED STATEMENTS OF CONDITIONS OR STIPULATIONS, WHICH ARE HEREBY MADE A PART OF THIS APPLICATION.

NUMBER OF ATTACHMENTS



WAIVER OF TIME RESTRICTION ON REQUESTS
FOR ADDITIONAL INFORMATION

I hereby waive all time restrictions relative to submission of additional information. This waiver applies to those provisions of law which limit the City and County of San Francisco's ability to require further information for this project application. These provisions of law include Sections 65943 and 65944 of Chapter 4.5 of Division 1 of Title 7 of the Government Code (Review and Approval of Development Projects).



Applicant's/Owner's Signature
Public Utilities Commission
Utilities Engineering Bureau

Type or Print Name

November 16, 1982

Date

Application No.
693 Vermont Street
San Francisco, California 94107

Address



CERTIFICATION OF AUTHORIZED AGENT

I hereby certify that for the purpose of filing an application for a building or other permit with the Central Permit Bureau, or completion of any form related to the S.F. Building Code, or to City and County ordinances and regulations, or to State laws and codes, I am the agent of the owner and am authorized to sign all documents connected with this application or permit.

I declare under penalty of perjury that the foregoing is true and correct.

R. G. Raffaele

Applicant's Signature

B. G. Raffaele

Type or Print Name

00530 I.D. Pass #

Identification (Drivers Lic. No., etc.)

City & County S.F. P.U.C.

Owner/Lessee

12/8/82

Date

OFFICIAL COPY

SAN FRANCISCO

CENTRAL PERMIT BUREAU
450 McAllister Street
San Francisco, CA 94102

Appl. # 08209515

Address 1201 Mason
SF. Ca.
Shooting Permit.

LICENSED CONTRACTOR'S STATEMENT

Licensed Contractor's Declaration

Pursuant to the Business and Professions Code Sec. 7031.5, I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License # 323829 License Class A, B

Date 11-18-82 Contractor (print) Tutor - Saliba

EXP 9/30/83 (signature) Earl F. Saliba

Owner-Builder Declaration

I hereby affirm that I am exempt from the Contractor's License Law, Business and Professions Code (Sec. 7031.5). (Mark the appropriate box below.)

I, as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale (Sec. 7044). I further acknowledge that I understand and agree that in the event that any work is commenced contrary to the representations contained herein, that the Permit herein applied for shall be deemed cancelled.

I, as owner am contracting with licensed contractors to construct this project (Sec. 7044). I certify that at the time such contractors are selected I will have them file a copy of this form (Licensed Contractors Declaration) prior to the commencement of any work. I further acknowledge that I understand and agree that, in the event that said contractors fail to file a copy of the Declaration with the Central Permit Bureau, that the Permit herein applied for shall be deemed cancelled.

I am exempt under Business and Professions Code Sec. _____

Reason _____

Date _____ Owner (print) _____

(signature) _____

NOTICE: "Any violation of the Bus. & Prof. Code Sec. 7031.5 by any permit applicant shall be subject to a civil penalty of not more than five hundred dollars (\$500)." Bus. & Prof. Code Sec. 7031.5

OFFICIAL COPY



APPLICATION FILING FEE - PLAN CHECKING RECEIPT

114572

CITY & COUNTY OF SAN FRANCISCO

RECEIVED OF

City County S.F.

BUILDING APPLICATION NUMBERS

2264915

FEE FOR APPLICATION FILING AND CHECKING PLANS, PRESCRIBED BY SAN FRANCISCO BUILDING CODE

| | DATE | ESTIMATED COST | FEE | REVENUE NO |
|--------------------|----------------|---------------------------------|----------------|------------|
| APPLICATION FILING | <i>12-8-22</i> | | <i>waived</i> | 7223 |
| PLAN CHECKING | | <i>472,000</i> | <i>1062.00</i> | 7226 |

| FINAL PLAN CHECKING | FINAL COST | FEE | RECEIVED |
|---------------------|------------|-----|----------|
| | | | |

DEPARTMENT OF PUBLIC WORKS
CENTRAL PERMIT BUREAU

3. BUREAU APPL.

BY *BT*

OFFICIAL COPY

SAN FRANCISCO DEPARTMENTAL USE ONLY

APPROVED FOR ISSUANCE APR 18 1983

DEPARTMENT OF BUILDING INSPECTION

APPROVED

Dept. Public Works

NAPR 22 1983

HANDICAPPED ACCESS

12-31-83

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS

**APPLICATION FOR BUILDING PERMIT
ADDITIONS, ALTERATIONS OR REPAIRS**

BIDG. FORM 3
APPLICATION NO. 508301911

APPLICATION IS HEREBY MADE TO THE DEPARTMENT OF PUBLIC WORKS OF SAN FRANCISCO FOR PERMISSION TO BUILD IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS SUBMITTED HEREWIT, AND ACCORDING TO THE DESCRIPTION AND FOR THE PURPOSE HEREINAFTER SET FORTH:

(1) STREET ADDRESS OF JOB:
San Francisco Cable Car Barn
1201 Mason St.
San Francisco, CA. 94133

(3) ESTIMATED COST OF JOB:
\$ 120,000

DATE FILED: 3-9-83

FILING FEE RECEIPT NO. 700-1602

PERMIT NO. 500101

ISSUED: APR 22 1983

| DESCRIPTION OF EXISTING BUILDING | | | | | | | | |
|---|---|--|---|---------------------------------------|------------------------------|--|--|--|
| (4A) TYPE OF CONSTR. 1-hr <input type="checkbox"/> 2-hr <input type="checkbox"/> 3-hr <input checked="" type="checkbox"/> 4-hr <input type="checkbox"/> 5-hr <input type="checkbox"/> | (5A) NUMBER OF STORIES OF OCCUPANCY: 0 | (6A) NUMBER OF BASEMENTS AND CELLARS: 1 | (7A) PRESENT USE: Main Cable Sheave Pit | (8A) BLDG CODE OCCUP CLASS: B3-F2, G. | (9A) NO OF DWELLING UNITS: 0 | | | |
| DESCRIPTION OF BUILDING AFTER PROPOSED ALTERATION | | | | | | | | |
| (4) TYPE OF CONSTR. 1-hr <input type="checkbox"/> 2-hr <input type="checkbox"/> 3-hr <input checked="" type="checkbox"/> 4-hr <input type="checkbox"/> 5-hr <input type="checkbox"/> | (5) NUMBER OF STORIES OF OCCUPANCY: 0 | (6) NUMBER OF BASEMENTS AND CELLARS: 1 | (7) PROPOSED USE: Main Cable Sheave Pit | (8) BLDG CODE OCCUP CLASS: B3-F2, G. | (9) NO OF DWELLING UNITS: 0 | | | |
| (10A) DOES THIS ALTERATION CREATE ADDITIONAL STORY TO BUILDING? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (10) IF YES, STATE NEW HEIGHT AT CENTER LINE OF FRONT: _____ FT. | (11A) DOES THIS ALTERATION CREATE DECK OR HORIZ EXTENSION TO BUILDING? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (11) IF YES, STATE NEW GROUND FLOOR AREA: _____ SQ FT. | | | | | |
| (14) WILL SIDEWALK OVER SUB-SIDEWALK SPACE BE REPAIRED OR ALTERED? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> | (15) WILL BUILDING EXTEND BEYOND PROPERTY LINE? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (16) IS AUTO RUNWAY TO BE CONSTRUCTED OR ALTERED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (17) WILL STREET SPACE BE USED DURING CONSTRUCTION? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | | | | | |
| (19) ANY OTHER EXISTING BLDG. ON LOT? (IF YES, SHOW ON PLOT PLAN) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (20) DOES THIS ALTERATION CONSTITUTE A CHANGE OF OCCUPANCY? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (21) ELECTRICAL WORK TO BE PERFORMED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (22) PLUMBING WORK TO BE PERFORMED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | | | | | |
| (23) GENERAL CONTRACTOR: Tutor-Saliba, Inc. 15901 Olden St. Sulmar, CA. 323829 | | | ADDRESS: _____ PHONE: _____ CALIF. LICENSE NO. _____ | | | | | |
| (24) ARCHITECT OR ENGINEER (DESIGN): Chin & Hensel Engineers, Inc. 246 1st St. S. F. CA. 94102 | | | ADDRESS: _____ PHONE: _____ CALIF. CERTIFICATE NO. _____ | | | | | |
| (25) CONSTRUCTION LENDER (ENTER NAME AND BRANCH DESIGNATION IF ANY. IF THERE IS NO KNOWN CONSTRUCTION LENDER, ENTER "UNKNOWN"). Unknown | | | | | | | | |
| (26) OWNER - LESSEE (CROSS OUT ONE): Public Utilities Commission, 693 Vermont St. S. F. CA. 558-2598 | | | ADDRESS: _____ PHONE (FOR CONTACT BY BUREAU): _____ | | | | | |
| (27) WRITE IN DESCRIPTION OF ALL WORK TO BE PERFORMED UNDER THIS APPLICATION (REFERENCE TO PLANS IS NOT SUFFICIENT): Structural Shoring for Main Cable Sheave Pit. | | | | | | | | |

IMPORTANT NOTICES

No change shall be made in the character of the occupancy or use without first obtaining a Building Permit authorizing such change. See Sec. 103, 104.B, 104.B.1, 104.C, 502, 502.1, San Francisco Building Code and Sec. 104, San Francisco Housing Code. No portion of building or structure or scaffolding used during construction, to be closer than 6'0" to any wire containing more than 750 volts. See Sec. 385, California Penal Code.

Pursuant to Sec. 302 A.B, San Francisco Building Code, the building permit shall be posted on the job. The owner is responsible for approved plans and application being kept at building site.

Grade lines as shown on drawings accompanying this application are assumed to be correct. If actual grade lines are not the same as shown revised drawings showing correct grade lines, cuts and fills together with complete details of retaining walls and wall footings required must be submitted to this bureau for approval.

ANY STIPULATION REQUIRED HEREIN OR BY CODE MAY BE APPEALED.

BUILDING NOT TO BE OCCUPIED UNTIL CERTIFICATE OF FINAL COMPLETION IS POSTED ON THE BUILDING OR PERMIT OF OCCUPANCY GRANTED, WHEN REQUIRED.

APPROVAL OF THIS APPLICATION DOES NOT CONSTITUTE AN APPROVAL FOR THE ELECTRICAL WIRING OR PLUMBING INSTALLATIONS. A SEPARATE PERMIT FOR THE WIRING AND PLUMBING MUST BE OBTAINED. SEPARATE PERMITS ARE REQUIRED IF ANSWER IS "YES" TO ANY OF ABOVE QUESTIONS (15) (16) (17) (20) (21) or (22). THIS IS NOT A BUILDING PERMIT. NO WORK SHALL BE STARTED UNTIL A BUILDING PERMIT IS ISSUED.

In dwellings all insulating materials must have a clearance of not less than two inches from all electrical wires or equipment.

CHECK APPROPRIATE BOX

OWNER ARCHITECT ENGINEER

LESSEE AGENT WITH POWER OF ATTORNEY

CONTRACTOR ATTORNEY IN FACT

APPLICANT'S CERTIFICATION

I HEREBY CERTIFY AND AGREE THAT IF A PERMIT IS ISSUED FOR THE CONSTRUCTION DESCRIBED IN THIS APPLICATION, ALL THE PROVISIONS OF THE PERMIT AND ALL LAWS AND ORDINANCES THERETO WILL BE COMPLIED WITH.

NOTICE TO APPLICANT

HOLD HARMLESS CLAUSE: The Permittee(s) by acceptance of this permit, agree(s) to indemnify and hold harmless the City and County of San Francisco from and against any and all claims, demands and actions for damages resulting from operations under this permit, regardless of negligence of the City and County of San Francisco, and to assume the defense of the City and County of San Francisco against all such claims, demands and actions.

In conformity with the provisions of Section 3800 of the Labor Code of the State of California, the applicant shall have on file, or file with the Central Permit Bureau, either Certificate (I) or (II) or (III) designated below or shall indicate item (IV) or (V) or (VI) below, whichever is applicable. If however, item (VI) is checked then item (V) must be checked as well. Mark the appropriate method of compliance below:

() I. Certificate of Consent to Self-Insure issued by the Director of Industrial Relations.

II. Certificate of Workman's Compensation Insurance issued by an admitted insurer.

() III. An exact copy or duplicate of (I) certified by the Director or (II) certified by the insurer.

() IV. The cost of the work to be performed is \$100 or less.

() V. I certify that in the performance of the work for which this Permit is issued, I shall not employ any person in any manner so as to become subject to the workman's compensation laws of California. I further acknowledge that I understand, in the event that I should become subject to the workman's compensation provisions of the Labor Code of California and fail to comply therewith with the provisions of Section 3800 of the Labor Code, that the Permit herein applied for shall be deemed revoked.

() VI. I certify as the owner (or the agent of the owner) that in the performance of the work for which this Permit is issued, I will employ a contractor who complies with the workman's compensation laws of California and who has on file, or prior to the commencement of any work will file, with the Central Permit Bureau evidence that workman's compensation insurance is carried.

Applicant's Signature: [Signature] Date: 3/10/83

OFFICIAL COPY

SAN FRANCISCO

CONDITIONS AND STIPULATIONS

DEPARTMENT OF BUILDING INSPECTION

APPROVED: [Signature] 4/13/83
BUILDING INSPECTOR, BUR. OF BLDG. INSP.

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

Not reviewed by the Department of City Planning. Use of this permit does not conform to the City Planning Code.

Interior Structural work only!
MAR 16 1983

CATEGORICALLY EXEMPT FROM ENVIRONMENTAL REVIEW

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

BUREAU OF FIRE PREVENTION & PUBLIC SAFETY

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED: *As shown on plan*

SPECIAL INSPECTION REQUIRED FOR SEBC SECTION 709.1, B.C.

Ant. V. Yee 4/13/83
CIVIL ENGINEER, BUR. OF BLDG. INSPECTION

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

Frank J. P... 4/6/83
BUREAU OF ENGINEERING

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

DEPARTMENT OF PUBLIC HEALTH

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

REDEVELOPMENT AGENCY

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

RESIDENTIAL ENV. INSPECTOR, DIV. OF APT. & HOTEL INSP., B.B.I.

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

Al Campos

Al Campos 4/6/83

DATE: _____
REASON: _____
NOTIFIED MR. _____

I AGREE TO COMPLY WITH ALL CONDITIONS OR STIPULATIONS OF THE VARIOUS BUREAUS OR DEPARTMENTS NOTED ON THIS APPLICATION, AND ATTACHED STATEMENTS OF CONDITIONS OR STIPULATIONS, WHICH ARE HEREBY MADE A PART OF THIS APPLICATION.
NUMBER OF ATTACHMENTS

P. K. Rafferty 4/22/83
SIGNATURE OF OWNER, LESSEE OR AUTHORIZED AGENT FOR OWNER OR LESSEE

HOLD SECTION - NOTE DATES AND NAMES OF ALL PERSONS NOTIFIED DURING PROCESSING

OFFICIAL COPY

SAN FRANCISCO
CENTRAL PERMIT BUREAU
450 McAllister Street
San Francisco, CA 94102

Appl. # _____
Address _____

LICENSED CONTRACTOR'S STATEMENT

Licensed Contractor's Declaration

Pursuant to the Business and Professions Code Sec. 7031.5, I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License _____ License Class _____
Date _____ Contractor (print) _____
(signature) _____

Owner-Builder Declaration

I hereby affirm that I am exempt from the Contractor's License Law, Business and Professions Code (Sec. 7031.5). (Mark the appropriate box below.)

I, as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale (Sec. 7044). I further acknowledge that I understand and agree that in the event that any work is commenced contrary to the representations contained herein, that the Permit herein applied for shall be deemed cancelled.
architect

I, as owner am contracting with licensed contractors to construct this project (Sec. 7044). I certify that at the time such contractors are selected I will have them file a copy of this form (Licensed Contractors Declaration) prior to the commencement of any work. I further acknowledge that I understand and agree that, in the event that said contractors fail to file a copy of the Declaration with the Central Permit Bureau, that the Permit herein applied for shall be deemed cancelled.

I am exempt under Business and Professions Code Sec. _____
Reason _____

Date 3/9/83 Owner (print) CCSF-PUC
(signature) R.S. Raffaelli for P.U.C.

NOTICE: "Any violation of the Bus. & Prof. Code Sec. 7031.5 by any permit applicant shall be subject to a civil penalty of not more than five hundred dollars (\$500)." Bus. & Prof. Code Sec. 7031.5

OFFICIAL COPY



WAIVER OF TIME RESTRICTION ON REQUESTS
FOR ADDITIONAL INFORMATION

I hereby waive all time restrictions relative to submission of additional information. This waiver applies to those provisions of law which limit the City and County of San Francisco's ability to require further information for this project application. These provisions of law include Sections 65943 and 65944 of Chapter 4.5 of Division 1 of Title 7 of the Government Code (Review and Approval of Development Projects).

CC of S.F. - P.U.C. R. G. Raffaele for
Applicant's/Owner's Signature

R. G. Raffaele
Type or Print Name

Mar 2, 1983
Date

8301911
Application No.

1201 Mason
Address



CERTIFICATION OF AUTHORIZED AGENT

I hereby certify that for the purpose of filing an application for a building or other permit with the Central Permit Bureau, or completion of any form related to the S.F. Building Code, or to City and County ordinances and regulations, or to State laws and codes, I am the agent of the owner and am authorized to sign all documents connected with this application or permit.

I declare under penalty of perjury that the foregoing is true and correct.

R.S. Raffaelli for P.U.C.
Applicant's Signature

R.G. Raffaelli
Type or Print Name

CDL P0721285
Identification (Drivers Lic. No., etc.)

CCSF - PUC.
Owner/Lessee

3/9/83
Date

OFFICIAL COPY



APPLICATION FILING FEE -
PLAN CHECKING RECEIPT

117680

CITY & COUNTY OF
SAN FRANCISCO

RECEIVED OF

BUILDING APPLICATION NUMBERS

Residential Addition to Existing Building

FEE FOR APPLICATION FILING AND CHECKING PLANS, PRESCRIBED BY SAN FRANCISCO BUILDING CODE

| | DATE | ESTIMATED COST | FEE | REVENUE NO |
|----------------|---------|-------------------|-------------------|------------|
| APPLIC. FILING | 4-18-81 | 120.00 | 464.35 | 7223 |
| PLAN CHECKING | | 120.00 | 464.35 | 7226 |

| FINAL PLAN CHECKING | FINAL COST | FEE | RECEIVED |
|---------------------|------------|--------|----------|
| | 120.00 | 464.35 | 584.35 |

DEPARTMENT OF PUBLIC WORKS
CENTRAL PERMIT BUREAU

B. BUREAU APPL.

BY _____

OFFICIAL COPY

SAN FRANCISCO DEPARTMENTAL USE ONLY

APPROVED FOR ISSUANCE MAY 10 1983
APPROVED
MAY 24 1983

Wm. L. Kelly
SUPERVISOR
GENERAL BUILDING INSPECTION

State Industrial Safety Permit
The attached application fails under the Labor Code Sec. 6500 in that it involves the type of construction work checked below:
 Construction of ladders or scaffolding which are 8 feet or deeper to descent.
 The construction of any building, structure, framework or scaffolding more than 3 stories high or the equivalent height (38 ft.).
 The demolition of any building, structure, framework, or scaffold, more than 3 stories high or the equivalent height (38 ft.).

SAN FRANCISCO PUBLIC WORKS BUILDING PERMITS OR REPAIRS
DEPARTMENT OF PUBLIC WORKS
TO BUILD IN ACCORDANCE WITH THE CODES AND ORDINANCES REFERRED TO HEREIN AND ACCORDING TO THE REQUIREMENTS SET FORTH:

BLDG. FORM **3**
APPLICATION NO. 0830347

DATE FILED 12-31-83
4-25-83
PERMIT NO. 501261
ISSUED MAY 24 1983

(1) STREET ADDRESS OF JOB:
San Francisco Cable Car Barn
1201 Mason St.
San Francisco, CA. 94133
(3) ESTIMATED COST OF JOB:
\$ 80,000 - *per*

| DESCRIPTION OF EXISTING BUILDING | | | | | | | | | |
|--|---|---|---|--|---|--|---|---|--|
| (4A) TYPE OF CONSTR. 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> | (5A) NUMBER OF STORIES OF OCCUPANCY 0 | (6A) NUMBER OF BASEMENTS AND CELLARS 1 | (7A) PRESENT USE Areaway Shoring | (8A) BLDG. CODE OCCUP. CLASS B3 F2-6 | (9A) NO. OF DWELLING UNITS 0 | DESCRIPTION OF BUILDING AFTER PROPOSED ALTERATION | | | |
| (4) TYPE OF CONSTR. 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> | (5) NUMBER OF STORIES OF OCCUPANCY 0 | (6) NUMBER OF BASEMENTS AND CELLARS 1 | (7) PROPOSED USE Areaway Shoring | (8) BLDG. CODE OCCUP. CLASS B3 F2-6 | (9) NO. OF DWELLING UNITS 0 | (10A) DOES THIS ALTERATION CREATE ADDITIONAL STORY TO BUILDING? NO <input checked="" type="checkbox"/> | (10) IF YES, STATE NEW HEIGHT AT CENTER LINE OF FRONT _____ FT. | (11A) DOES THIS ALTERATION CREATE DECK OR HORIZ. EXTENSION TO BUILDING? NO <input checked="" type="checkbox"/> | (11) IF YES, STATE NEW GRADED FLOOR AREA _____ SQ. FT. |
| (14) WILL SIDEWALK OVER SUB-SIDEWALK SPACE BE REPAIRED OR ALTERED? NO <input checked="" type="checkbox"/> | (15) WILL BUILDING EXTEND BEYOND PROPERTY LINE? NO <input checked="" type="checkbox"/> | (16) DOES THIS ALTERATION CONSTITUTE A CHANGE OF OCCUPANCY? NO <input checked="" type="checkbox"/> | (16) IS AUTO RUNWAY TO BE CONSTRUCTED OR ALTERED? NO <input checked="" type="checkbox"/> | (17) WILL STREET SPACE BE USED DURING CONSTRUCTION? NO <input type="checkbox"/> | (17) PLUMBING WORK TO BE PERFORMED? NO <input checked="" type="checkbox"/> | (23) GENERAL CONTRACTOR Tator - Soliba, Inc. 15701 Olden St. Sylmar, CA. 323829 | | | |
| (24) ARCHITECT OR ENGINEER (DESIGN <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> Chin & Henzolt Engineers, Inc. 246 1st St. S.F. CA. POC 836 | | | | | | (25) CONSTRUCTION LENDER (ENTER NAME AND BRANCH DESIGNATION IF ANY. IF THERE IS NO KNOWN CONSTRUCTION LENDER, ENTER "UNKNOWN") Unknown | | | |
| (26) OWNER - (SEE (CROSS OUT ONE) Public Utilities Comm. 623 Vermont S.F. CA. 558-2598 J.A. Wellster | | | | | | (27) WRITE IN DESCRIPTION OF ALL WORK TO BE PERFORMED UNDER THIS APPLICATION (REFERENCE TO PLANS IS NOT SUFFICIENT): Structural Shoring - Areaway | | | |

IMPORTANT NOTICES

No change shall be made in the character of the occupancy or use without first obtaining a Building Permit authorizing such change. See Sec. 103, 104.B, 104.B.1, 104.C, 502, 502.1, San Francisco Building Code and Sec. 104, San Francisco Housing Code.

No portion of building or structure or scaffolding used during construction, to be closer than 6'0" to any wire containing more than 750 volts. See Sec. 385, California Penal Code.

Pursuant to Sec. 302 A 8, San Francisco Building Code, the building permit shall be posted on the job. The owner is responsible for approved plans and application being kept at building site.

Grade lines as shown on drawings accompanying this application are assumed to be correct. If actual grade lines are not the same as shown revised drawings showing correct grade lines, cuts and fills together with complete details of retaining walls and wall footings required must be submitted to this bureau for approval.

ANY STIPULATION REQUIRED HEREIN OR BY CODE MAY BE APPEALED.

BUILDING NOT TO BE OCCUPIED UNTIL CERTIFICATE OF FINAL COMPLETION IS POSTED ON THE BUILDING OR PERMIT OF OCCUPANCY GRANTED, WHEN REQUIRED.

APPROVAL OF THIS APPLICATION DOES NOT CONSTITUTE AN APPROVAL FOR THE ELECTRICAL WIRING OR PLUMBING INSTALLATIONS. A SEPARATE PERMIT FOR THE WIRING AND PLUMBING MUST BE OBTAINED. SEPARATE PERMITS ARE REQUIRED IF ANSWER IS "YES" TO ANY OF ABOVE QUESTIONS (15) (16) (17) (20) (21) or (22). THIS IS NOT A BUILDING PERMIT. NO WORK SHALL BE STARTED UNTIL A BUILDING PERMIT IS ISSUED.

In dwellings all insulating materials must have a clearance of not less than two inches from all electrical wires or equipment.

CHECK APPROPRIATE BOX
 OWNER ARCHITECT ENGINEER
 LESSEE AGENT WITH POWER OF ATTORNEY
 CONTRACTOR ATTORNEY IN FACT

APPLICANT'S CERTIFICATION

I HEREBY CERTIFY AND AGREE THAT IF A PERMIT IS ISSUED FOR THE CONSTRUCTION DESCRIBED IN THIS APPLICATION, ALL THE PROVISIONS OF THE PERMIT AND ALL LAWS AND ORDINANCES THERETO WILL BE COMPLIED WITH.

NOTICE TO APPLICANT

HOLD HARMLESS CLAUSE: The Permittee(s) by acceptance of this permit, agree(s) to indemnify and hold harmless the City and County of San Francisco from and against any and all claims, demands and actions for damages resulting from operations under this permit, regardless of negligence of the City and County of San Francisco, and to assume the defense of the City and County of San Francisco against all such claims, demands and actions.

In conformity with the provisions of Section 3800 of the Labor Code of the State of California, the applicant shall have on file, or file with the Central Permit Bureau, either Certificate (I) or (II) or (III) designated below or shall indicate item (IV) or (V) or (VI) below, whichever is applicable. If however, item (VI) is checked then item (V) must be checked as well. Mark the appropriate method of compliance below.

() I Certificate of Consent to Self-Insure issued by the Director of Industrial Relations
 II Certificate of Workman's Compensation Insurance issued by an admitted insurer
() III An exact copy or duplicate of (I) certified by the Director or (II) certified by the insurer
() IV The cost of the work to be performed is \$100 or less.
() V I certify that in the performance of the work for which this Permit is issued, I shall not employ any person in any manner so as to become subject to the workman's compensation laws of California. I further acknowledge that I understand in the event that I should become subject to the workman's compensation provisions of the Labor Code of California and fail to comply therewith with the provisions of Section 3800 of the Labor Code that the Permit hereon applied for shall be deemed revoked.
() VI I certify as the owner (or the agent of the owner) that in the performance of the work for which this Permit is issued, I will employ a contractor who complies with the workman's compensation law of California and who has on file, or prior to the commencement of any work will file, with the Central Permit Bureau evidence that workman's compensation insurance is carried.

Applicant's Signature: *P. L. ...* Date: *5/24/83*

OFFICIAL COPY

SAN FRANCISCO

CONDITIONS AND STIPULATIONS

DEPARTMENT OF BUILDING INSPECTION

REFER TO: APPROVED: *[Signature]*
 BUILDING INSPECTOR, BUR. OF BLDG. INSP. 4/28/83

DATE: _____
 REASON: _____
 NOTIFIED MR. _____

APPROVED:
 Not reviewed by the Department or City Planning. Issuance of the requested permit constitutes no indication that use of this property does or does not conform to the City Planning Code.
 DEPARTMENT OF CITY PLANNING

DATE: _____
 REASON: _____
 NOTIFIED MR. _____

APPROVED:
 BUREAU OF FIRE PREVENTION & PUBLIC SAFETY

DATE: _____
 REASON: _____
 NOTIFIED MR. _____

APPROVED: *as noted on plan*
 SPECIAL INSPECTION REQUIRED PER SFBC SECTION 305.A,B,C.
Dot Y. Yee 5/5/83
 CIVIL ENGINEER, BUR. OF BLDG. INSPECTION

DATE: _____
 REASON: _____
 NOTIFIED MR. _____

APPROVED:
R. King 5-9-83
 BUREAU OF ENGINEERING

DATE: _____
 REASON: _____
 NOTIFIED MR. _____

APPROVED:
 DEPARTMENT OF PUBLIC HEALTH

DATE: _____
 REASON: _____
 NOTIFIED MR. _____

APPROVED:
 REDEVELOPMENT AGENCY

DATE: _____
 REASON: _____
 NOTIFIED MR. _____

APPROVED:
 RESIDENTIAL ENV. INSPECTOR, DIV. OF APT & HOTEL INSP., B.B.I

DATE: _____
 REASON: _____
 NOTIFIED MR. _____

APPROVED:

DATE: _____
 REASON: _____
 NOTIFIED MR. _____

HOLD SECTION - NOTE DATES AND NAMES OF ALL PERSONS NOTIFIED DURING PROCESSING

I AGREE TO COMPLY WITH ALL CONDITIONS OR STIPULATIONS OF THE VARIOUS BUREAUS OR DEPARTMENTS NOTED ON THIS APPLICATION, AND ATTACHED STATEMENTS OF CONDITIONS OR STIPULATIONS WHICH ARE HEREBY MADE A PART OF THIS APPLICATION.
 NUMBER OF ATTACHMENTS

J.R.S. Vassalli
 SIGNATURE OF OWNER, LESSEE OR AUTHORIZED AGENT FOR OWNER OR LESSEE

OFFICIAL COPY



CERTIFICATION OF AUTHORIZED AGENT

I hereby certify that for the purpose of filing an application for a building or other permit with the Central Permit Bureau, or completion of any form related to the S.F. Building Code, or to City and County ordinances and regulations, or to State laws and codes, I am the agent of the owner and am authorized to sign all documents connected with this application or permit.

I declare under penalty of perjury that the foregoing is true and correct.

R. S. Raffalli

Applicant's Signature

R. S. Raffalli

Type or Print Name

P0721285

Identification (Drivers Lic. No., etc.)

CCSF - PLIC.

Owner/Lessee

4/25/83

Date



WAIVER OF TIME RESTRICTION ON REQUESTS
FOR ADDITIONAL INFORMATION

I hereby waive all time restrictions relative to submission of additional information. This waiver applies to those provisions of law which limit the City and County of San Francisco's ability to require further information for this project application. These provisions of law include Sections 65943 and 65944 of Chapter 4.5 of Division 1 of Title 7 of the Government Code (Review and Approval of Development Projects).

R. G. Raffalli
Applicant's/Owner's Signature

R. G. Raffalli
Type or Print Name

4/25/83
Date

Application No.

1201 Mason St. S F.
Address

OFFICIAL COPY

SAN FRANCISCO

CENTRAL PERMIT BUREAU
DEPARTMENT OF PUBLIC WORKS
BUILDING DEPARTMENT
450 McAllister Street
San Francisco, CA 94102

Appl. # 8303477
Address 1201 Haseen St.

NOTICE TO APPLICANTS

Licensed Contractor's Declaration

Pursuant to the Business and Professions Code Sec. 7031.5, I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License 323829 License Class A&B

Date 9-30-83 Contractor (print) Tufar-Saliba

(signature) Tufar-Saliba

Owner-Builder Declaration

I hereby affirm that I am exempt from the Contractor's License Law, Business and Professions Code (Sec. 7031.5). (Mark the appropriate box below.)

- I, as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale (Sec. 7044). I further acknowledge that I understand and agree that in the event that any work is commenced contrary to the representations contained herein, that the Permit herein applied for shall be deemed cancelled.
- I, as ^{architect}owner am contracting with licensed contractors to construct this project (Sec. 7044). I certify that at the time such contractors are selected I will have them file a copy of this form (Licensed Contractors Declaration) prior to the commencement of any work. I further acknowledge that I understand and agree that, in the event that said contractors fail to file a copy of the Declaration with the Central Permit Bureau, that the Permit herein applied for shall be deemed cancelled.

I am exempt under Business and Professions Code Sec. _____

Reason _____

Date _____ Owner (print) _____

(signature) _____

NOTICE: "Any violation of the Bus. & Prof. Code Sec. 7031.5 by any permit applicant shall be subject to a civil penalty of not more than five hundred dollars (\$500)." Bus. & Prof. Code Sec. 7031.5

OFFICIAL COPY



APPLICATION FILING FEE - PLAN CHECKING RECEIPT

118877

CITY & COUNTY OF SAN FRANCISCO

RECEIVED OF

BUILDING APPLICATION NUMBERS

[Handwritten signature] *[Handwritten number 111]*

FEE FOR APPLICATION FILING AND CHECKING PLANS, PRESCRIBED BY SAN FRANCISCO BUILDING CODE

| | DATE | ESTIMATED COST | FEE | REVENUE NO |
|--------------------|------|---------------------------------|-----|------------|
| APPLICATION FILING | | | | 7223 |
| PLAN CHECKING | | | | 7226 |

| FINAL PLAN CHECKING | FINAL COST | FEE | RECEIVED |
|---------------------|------------|-----|----------|
| | | | |

DEPARTMENT OF PUBLIC WORKS
CENTRAL PERMIT BUREAU

BUREAU APPL.

BY *[Handwritten signature]*

OFFICIAL COPY

SAN FRANCISCO

CONDITIONS AND STIPULATIONS

DEPARTMENT OF BUILDING INSPECTION

APPROVED: [Signature]

OFFICE COPY

[Signature] 2/9/84
BUILDING INSPECTOR, BUR. OF BLDG. INSP.

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

[Signature] FEB 08 1984
DEPARTMENT OF CITY PLANNING

CATEGORICALLY EXEMPT FROM ENVIRONMENTAL REVIEW

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

SUBJECT TO COMPLIANCE WITH CONDITIONS WRITTEN ON PLANS NEXT TO STAMP # DATED 2-24-84 [Signature] 2-24-84
BUREAU OF FIRE PREVENTION & PUBLIC SAFETY

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

as noted on drawing [Signature] 2/4/84
CIVIL ENGINEER, BUR. OF BLDG. INSPECTION

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

BUREAU OF ENGINEERING

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

DEPARTMENT OF PUBLIC HEALTH

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

REDEVELOPMENT AGENCY

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

RESIDENTIAL ENV. INSPECTOR, DIV. OF APT & HOTEL INSP., B.B.I

DATE: _____
REASON: _____
NOTIFIED MR. _____

APPROVED:

PC ED Pen Votl
or RAY [Signature] 2/28/84

DATE: _____
REASON: _____
NOTIFIED MR. _____

HOLD SECTION — NOTE DATES AND NAMES OF ALL PERSONS NOTIFIED DURING PROCESSING

I AGREE TO COMPLY WITH ALL CONDITIONS OR STIPULATIONS OF THE VARIOUS BUREAUS OR DEPARTMENTS NOTED ON THIS APPLICATION, AND ATTACHED STATEMENTS OF CONDITIONS OR STIPULATIONS, WHICH ARE HEREBY MADE A PART OF THIS APPLICATION.
NUMBER OF ATTACHMENTS

[Signature] Ralph B. Raffaelli
SIGNATURE OF OWNER, LESSEE OR AUTHORIZED AGENT FOR OWNER OR LESSEE.



WAIVER OF TIME RESTRICTION ON REQUESTS
FOR ADDITIONAL INFORMATION

I hereby waive all time restrictions relative to submission of additional information. This waiver applies to those provisions of law which limit the City and County of San Francisco's ability to require further information for this project application. These provisions of law include Sections 65943 and 65944 of Chapter 4.5 of Division 1 of Title 7 of the Government Code (Review and Approval of Development Projects).

R.S. Raffaelli
Applicant's/Owner's Signature
R. G. Raffaelli
Type or Print Name
2/6/84
Date
08401359
Application No.
1201 Mason St.
Address
S.F., 94133



CERTIFICATION OF AUTHORIZED AGENT

I hereby certify that for the purpose of filing an application for a building or other permit with the Central Permit Bureau, or completion of any form related to the S.F. Building Code, or to City and County ordinances and regulations, or to State laws and codes, I am the agent of the owner and am authorized to sign all documents connected with this application or permit.

I declare under penalty of perjury that the foregoing is true and correct.

R. S. Raffaelli
Applicant's Signature

R. G. Raffaelli
Type or Print Name

CDL P0721285
Identification (Drivers Lic. No., etc.)

CCSF P4 C
Owner/Lessee

Feb 2, 1984
Date

OFFICIAL COPY

SAN FRANCISCO

CENTRAL PERMIT BUREAU
450 McAllister Street
San Francisco, CA 94102

Appl. # 8401359
Address 1201 Mason St.

LICENSED CONTRACTOR'S STATEMENT

Licensed Contractor's Declaration

Pursuant to the Business and Professions Code Sec. 7031.5, I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License 323892 License Class AB
Expiration Date 9-30-84 Contractor (print) TUTOR - SALIBA
(signature) *Norm Saliba*

Owner-Builder Declaration

I hereby affirm that I am exempt from the Contractor's License Law, Business and Professions Code (Sec. 7031.5). (Mark the appropriate box below.)

- I, as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale (Sec. 7044). I further acknowledge that I understand and agree that in the event that any work is commenced contrary to the representations contained herein, that the Permit herein applied for shall be deemed cancelled.
architect
- I, as owner am contracting with licensed contractors to construct this project (Sec. 7044). I certify that at the time such contractors are selected I will have them file a copy of this form (Licensed Contractors Declaration) prior to the commencement of any work. I further acknowledge that I understand and agree that, in the event that said contractors fail to file a copy of the Declaration with the Central Permit Bureau, that the Permit herein applied for shall be deemed cancelled.
- I am exempt under Business and Professions Code Sec. _____
Reason _____

Date _____ Owner (print) _____
(signature) _____

NOTICE: "Any violation of the Bus. & Prof. Code Sec. 7031.5 by any permit applicant shall be subject to a civil penalty of not more than five hundred dollars (\$500)." Bus. & Prof. Code Sec. 7031.5

APPROVED Dept. of Public Works OCT 02 1986 Franklin Lew SUPERINTENDENT DEPT. OF BUILDING INSPECTION

APPROVED FOR ISSUANCE OCT 1 2 1986

3/8

APPLICATION FOR BUILDING PERMIT ADDITIONS, ALTERATIONS OR REPAIRS

CITY AND COUNTY OF SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS

FORM 3 [X] OTHER AGENCIES REVIEW REQUIRED FORM B [] OVER-THE-COUNTER ISSUANCE

APPLICATION IS BEING MADE TO THE DEPARTMENT OF PUBLIC WORKS OF SAN FRANCISCO FOR PERMISSION TO BUILD IN ACCORDANCE WITH THE PLUMBING SPECIFICATIONS SUBMITTED HERewith AND ACCORDING TO THE DESCRIPTION AND FOR THE PURPOSE HEREINAFTER SET FORTH.

2 NUMBER OF PLAN SETS 1-1-87 H/G

DATE FILED 9-12-86 PERMIT NO. 555259 PLUMBING PERMIT NO. 152516 (1) STREET ADDRESS OF JOB 1201 MASON STREET SAN FRANCISCO (2A) ESTIMATED COST OF JOB \$4,433.00 (2B) REVISED COST: \$0.00

INFORMATION TO BE FURNISHED BY ALL APPLICANTS (1A) TYPE OF BUILDING ELEC. (1B) NO. OF STORIES OF OCCUPANCY 3 (1C) NO. OF BASEMENTS AND CELLARS 0 (7A) PRESENT USE GARAGE CAR STORAGE (7B) PROPOSED USE (LEGAL USE) SAME (8) OCCUP CLASS H-4 (9) NO. OF DWELLING UNITS 0 (10) IS AUTO RAMPWAY TO BE CONSTRUCTED OR ALTERED? YES [] NO [X] (11) WILL STREET SPACE BE USED DURING CONSTRUCTION? YES [] NO [X] (12) ELECTRICAL WORK TO BE PERFORMED? YES [X] NO [] (13) PLUMBING WORK TO BE PERFORMED? YES [X] NO [] (14) GENERAL CONTRACTOR STDP-FIRE INC. 470 G. BROGAN RD. #28888 43314 1-3-87

(15) OWNER - (SEEKER CHECKS ONE) City County San Francisco 1201 Mason St (400) 436 8888 (16) BRIEF DESCRIPTION OF THE WORK TO BE PERFORMED UNDER THIS APPLICATION (REFERENCE TO PLANS IS NOT SUFFICIENT) FIRE DETECTION AND SUPPRESSION SYSTEM TO BE INSTALLED IN ELECTRICAL EQUIPMENT ROOM, CONTROL ROOM, ...

ADDITIONAL INFORMATION - FORM 3 APPLICANTS ONLY (17) DOES THIS ALTERATION CREATE ADDITIONAL STORY TO BUILDING? YES [] NO [X] (18) IF (17) IS YES, STATE NEW HEIGHT AT CENTER LINE OF FRONT FT. (19) DOES THE ALTERATION CREATE DITCH OR HOLE EXTERIOR TO BUILDING? YES [] NO [X] (20) IF (19) IS YES, STATE NEW GROUND FLOOR AREA SQ. FT. (21) WILL SIDEWALK OVER SUB-SIDEWALK SPACE BE REPAIRED OR ALTERED? YES [] NO [X] (22) WILL BUILDING EXTEND BEYOND PROPERTY LINE? YES [] NO [X] (23) ANY OTHER EXISTING BLDG. ON LOT? IF YES, SHOW ON PLOT PLAN YES [] NO [X] (24) DOES THIS ALTERATION CONSTITUTE A CHANGE OF OCCUPANCY? YES [] NO [X] (25) ARCHITECT OR ENGINEER (DESIGN [] CONSTRUCTION [X]) STDP-FIRE INC. 470 G. BROGAN ADDRESS CALIF. CERTIFICATE NO. (26) CONSTRUCTION LICENSE (ENTER NAME AND BRANCH DESIGNATION IF ANY, IF THERE IS NO KNOWN CONSTRUCTION LICENSE, ENTER "UNKNOWN")

IMPORTANT NOTICES No change shall be made in the character of the occupancy or use without first obtaining a Building Permit... CHECK APPROPRIATE BOX [X] OWNER [] ARCHITECT [] ENGINEER [] LESSEE [] AGENT WITH POWER OF ATTORNEY [] CONTRACTOR [] ATTORNEY IN FACT APPLICANT'S CERTIFICATION I HEREBY CERTIFY AND AGREE THAT IF A PERMIT IS ISSUED FOR THE CONSTRUCTION DESCRIBED IN THIS APPLICATION, ALL THE PROVISIONS OF THE PERMIT AND ALL LAWS AND ORDINANCES THERETO WILL BE COMPLIED WITH.

NOTICE TO APPLICANT HOLD HARMLESS CLAUSE: The Permittee(s) by acceptance of the permit, agree(s) to indemnify and hold harmless the City and County of San Francisco... I certify that in the performance of the work for which this Permit is issued, I shall not employ any person in any manner so as to become subject to the workman's compensation laws of California... Applicant's Signature: Jan M. Storke Date

OFFICIAL COPY

SAN FRANCISCO
DEPARTMENT OF BUILDING INSPECTION

CONDITIONS AND STIPULATIONS

Per [unclear]

[Signature]
BUILDING INSPECTOR B.I.R. OF BLDG. INSP.

DATE
REASON

APPROVED: *Limited to outdoor work*

DATE: _____
REASON:

APPROVED BY LANDMARKS BOARD
[Signature]

CATEGORICALLY EXEMPT FROM ENVIRONMENTAL REVIEW

SEP 22 1986

NOTIFIED MR.

APPROVED: *FEE PLANS ONLY*



DISTRICT FIRE INSPECTOR
TO WITNESS TESTING OF
HALON SYSTEM, CONTACT
24 HOURS PRIOR TO
861-8000 — EXT. 345

PLEASE NOTIFY
AT START OF WORK
CONTACT FIRE INSPECTOR
1415 861 8000 EXT. 345

[Signature] 10-1-86
BUREAU OF FIRE PREVENTION & PUBLIC SAFETY

DATE: _____
REASON:

NOTIFIED MR.

APPROVED:

DATE: _____
REASON:

CIVIL ENGINEER, SUP. OF BLDG. INSPECTION

NOTIFIED MR.

APPROVED:

DATE: _____
REASON:

BUREAU OF ENGINEERING

NOTIFIED MR.

APPROVED:

DATE: _____
REASON:

DEPARTMENT OF PUBLIC HEALTH

NOTIFIED MR.

APPROVED:

DATE: _____
REASON:

APPROVED:

DATE: _____
REASON:

HOUSING INSPECTION DIVISION

NOTIFIED MR.

I agree to comply with all conditions, stipulations, and/or terms of the permit, approval, or other action and to maintain and enforce all stipulations or conditions, which are listed, made a part of the approval.

Number of amendments: _____

[Signature]
DATE: _____

HOLD SECTION -- NOTE DATES AND NAMES OF ALL PERSONS NOTIFIED DURING PROCESSING



BUREAU APPLICATION

DATE 9-12-16 APPLICATION FILING FEE - PLAN CHECKING RECEIPT 152516

RECEIVED OF Step 4 BUILDING APPLICATION NUMBERS 161304

FEE FOR APPLICATION FILING AND CHECKING PLANS PRESCRIBED BY SAN FRANCISCO BUILDING CODE

| | | |
|--|---|---|
| ESTIMATED COST OF JOB <u>54,437</u> | PLAN CHECK FEE REVENUE 7226 <u>22450</u> | FILING FEE REVENUE 7223 <u>31987</u> |
| EXPEDITER REVENUE 7899 | FULL PLAN CHECK FILING 1% PLAN CHECK FEE 6% STRUCTURAL 7% ARCHITECTURAL 5% ENERGY | CITY AND COUNTY OF SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS CENTRAL PERMIT BUREAU BY <u>[Signature]</u> |



WAIVER OF TIME RESTRICTION ON REQUESTS
FOR ADDITIONAL INFORMATION

I hereby waive all time restrictions relative to submission of additional information. This waiver applies to those provisions of law which limit the City and County of San Francisco's ability to require further information for this project application. These provisions of law include Sections 65943 and 65944 of Chapter 4.5 of Division 1 of Title 7 of the Government Code (Review and Approval of Development Projects).

[Signature]
Applicant's/Owner's Signature

IAN M. STORLIE
Type or Print Name

9-12-80
Date

8611304
Application No.

470 E. BROKAW RD. 35, CA
Address 95112



CENTRAL PERMIT BUREAU
450 McALLISTER STREET
SAN FRANCISCO, CA 94102

Appl. # _____
Address _____

LICENSED CONTRACTOR'S STATEMENT

Licensed Contractor's Declaration

Pursuant to the Business and Professions Code Sec. 7031.5, I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License Number 433114 License Class C16/C161

Expiration Date 1-31-87 Contractor STOP FIRE INC

PRINT

Alan M. Strick
SIGNATURE

Owner-Builder Declaration

I hereby affirm that I am exempt from the Contractor's License Law, Business and Professions Code (Sec. 7031.5). (Mark the appropriate box below.)

I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044). I further acknowledge that I understand and agree that in the event that any work is commenced contrary to the representations contained herein, that the Permit herein applied for shall be deemed cancelled.

architect, agent

I, as owner, am contracting with licensed contractors to construct this project (Sec. 7044). I certify that at the time such contractors are selected, I will have them file a copy of this form (Licensed Contractors Declaration) prior to the commencement of any work. I further acknowledge that I understand and agree that, in the event that said contractors fail to file a copy of the Declaration with the Central Permit Bureau, that the Permit herein applied for shall be deemed cancelled.

I am exempt under Business and Professions Code Sec. _____

Reason _____

Architect (PRINT) _____

Date _____ Agent (PRINT) _____

Owner (PRINT) _____

(SIGNATURE) _____

NOTICE: "Any violation of the Bus. & Prof. Code Sec. 7031.5 by any permit applicant shall be subject to a civil penalty of not more than five hundred dollars (\$500)." Bus. & Prof. Code Sec. 7031.5.



CERTIFICATION OF AUTHORIZED AGENT

I hereby certify that for the purpose of filing an application for a building or other permit with the Central Permit Bureau, or completion of any form related to the S.F. Building Code, or to City and County ordinances and regulations, or to state laws and codes, I am the agent of the owner and am authorized to sign all documents connected with this application or permit.

I declare under penalty of perjury that the forgoing is true and correct.

[Handwritten Signature]
Applicant's Signature

IAN M. STORLI
Type or Print Name

V9140886
Identification
(Drivers Lic. No., etc.)

CITY
Owner/Lessee

9-12-84
Date

002200

If the image of this document appears less sharp than this notice, it is due to the quality of the original.

CENTRAL PERMIT BUREAU
450 McALLISTER STREET
SAN FRANCISCO, CA 94102

Appl. # _____
Address _____

LICENSED CONTRACTOR'S STATEMENT

Licensed Contractor's Declaration

Pursuant to the Business and Professions Code Sec. 7031.5, I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License Number 661348 License Class B-1
Expiration Date 12-31-94 Contractor Kirkland and Green

PRINT

Theresa Hauke
SIGNATURE

Owner-Builder Declaration

I hereby affirm that I am exempt from the Contractor's License Law, Business and Professions Code (Sec. 7031.5). (Mark the appropriate box below.)

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I am exempt under Business and Professions Code Sec. _____
Reason _____

Architect (PRINT) _____

Date _____ Agent (PRINT) _____

Owner (PRINT) _____

(SIGNATURE) _____

NOTICE: "Any violation of the Bus. & Prof. Code Sec. 7031.5 by any permit applicant shall be subject to a civil penalty of not more than five hundred dollars (\$500)." Bus. & Prof. Code Sec. 7031.5.

052200

If the image of this document appears less sharp than this notice, it is due to the quality of the original.

APPROVED FOR ISSUANCE
 EXT. 522-93
 3-22-93
 UCSF WEB
 FIRE
 APPROVED
 Dept. of Public Works
 PAT REONARD

APPLICATION FOR BUILDING PERMIT 15 1993 CITY AND COUNTY OF SAN FRANCISCO
 DEPARTMENT OF PUBLIC WORKS
 ADDITIONS, ALTERATIONS OR REPAIRS
 FORM 3 OTHER AGENCIES REVIEW REQUIRED
 FORM 8 OVER-THE-COUNTER ISSUANCE
 BUREAU OF BUILDING INSPECTION
 SUPERINTENDING ENGINEER
 APPROVAL IS HEREBY MADE TO THE DEPARTMENT OF PUBLIC WORKS BY THE SUPERINTENDING ENGINEER OF THE BUREAU OF BUILDING INSPECTION IN ACCORDANCE WITH THE PLAN AND SPECIFICATIONS SUBMITTED HEREWITH AND ACCORDING TO THE DESCRIPTION AND FOR THE PURPOSE HEREINAFTER SET FORTH.

DATE FILED: 1-10-92
 PERMIT NO: 725585
 (1) STREET ADDRESS OF JOB: 1201 Mason Street
 (2) ESTIMATED COST OF JOB: \$150,000.00
 (3) PROPOSED USE (LEGAL USE): OFFICES
 (4) GENERAL CONTRACTOR: NOT SELECTED

INFORMATION TO BE FURNISHED BY ALL APPLICANTS

| | | | | | |
|-----------------------------|-----------------------------------|-------------------------------------|---------------------------------------|---------------------|--------------------------------|
| (2A) TYPE OF CONSTR. 2-F.R. | (2B) NO. OF STORES OF OCCUPANCY 3 | (2C) NO. OF BASEMENTS AND CELLARS 1 | (2D) PRESENT USE Cable Car Barn | (2E) OCCUP. CLASS 4 | (2F) NO. OF DWELLING UNITS -0- |
| (4) TYPE OF CONSTR. 2-F.R. | (4B) NO. OF STORES OF OCCUPANCY 3 | (4C) NO. OF BASEMENTS AND CELLARS 1 | (4D) PROPOSED USE (LEGAL USE) Offices | (4E) OCCUP. CLASS 4 | (4F) NO. OF DWELLING UNITS -0- |

(15) OWNER - LESSEE (CROSS OUT ONE)
 City & County of San Francisco
 949 Presidio Ave. San Francisco, Ca. 94115
 PHONE FOR CONTACT BY BUREAU: 923-6380

(16) WRITE IN DESCRIPTION OF ALL WORK TO BE PERFORMED UNDER THIS APPLICATION (REFER TO PLAN & NOT SURFICIENT)
 The addition of mezzanine offices

ADDITIONAL INFORMATION - FORM 3 APPLICANTS ONLY

(17) DOES THIS ALTERATION CREATE ADDITIONAL STORY TO BUILDING? YES NO

(18) IF (17) IS YES, STATE NEW HEIGHT AT CENTER LINE OF FRONT FT. YES NO

(19) DOES THIS ALTERATION CREATE DECK OR PORCH EXTENSION TO BUILDING? YES NO

(20) IF (19) IS YES, STATE NEW GROUND FLOOR AREA SQ. FT. YES NO

(21) WILL SIDEWALK SPACE BE REPAIRED OR ALTERED? YES NO

(22) WILL BUILDING TIE-ROD BEYOND PROPERTY LINE? YES NO

(23) ANY OTHER EXISTING BLDG ON LOT? YES, SHOW ON PLAN (YES) NO

(24) DOES THIS ALTERATION CONSTITUTE A CHANGE OF OCCUPANCY? YES NO

ARCHITECT OR ENGINEER (DESIGN) CONSTRUCTION: Utilities Engineering Bureau, 1155 Market Street, San Francisco, CA
 CONSTRUCTION LENDER (ENTER NAME AND BRANCH DESIGNATION IF ANY, IF THERE IS NO KNOWN CONSTRUCTION LENDER, ENTER "UNKNOWN"): 94103

IMPORTANT NOTICES

No change shall be made in the character of the occupancy or use without first obtaining a Building Permit authorizing such change. See San Francisco Building Code and San Francisco Housing Code.

No portion of building or structure or scaffolding used during construction, to be closer than 6" to any wire containing more than 750 volts. See Sec. 385, California Penal Code.

Pursuant to San Francisco Building Code, the building permit shall be posted on the job. The owner is responsible for approved plans and application being kept at building site.

Grade lines as shown on drawings accompanying this application are assumed to be correct. If actual grade lines are not the same as shown revised drawings showing correct grade lines, cuts and fills together with complete details of retaining walls and wall footings required must be submitted to this bureau for approval.

ANY STIPULATION REQUIRED HEREIN OR BY CODE MAY BE APPEALED.

BUILDING NOT TO BE OCCUPIED UNTIL CERTIFICATE OF FINAL COMPLETION IS POSTED ON THE BUILDING OR PERMIT OF OCCUPANCY GRANTED, WHEN REQUIRED.

APPROVAL OF THIS APPLICATION DOES NOT CONSTITUTE AN APPROVAL FOR THE ELECTRICAL WIRING OR PLUMBING INSTALLATIONS. A SEPARATE PERMIT FOR THE WIRING AND PLUMBING MUST BE OBTAINED. SEPARATE PERMITS ARE REQUIRED IF ANSWER IS "YES" TO ANY OF ABOVE QUESTIONS (10), (11), (12), (13), (22) or (24). THIS IS NOT A BUILDING PERMIT. NO WORK SHALL BE STARTED UNTIL A BUILDING PERMIT IS ISSUED.

In dwellings all insulating materials must have a clearance of not less than two inches from all electrical wires or equipment.

CHECK APPROPRIATE BOX
 OWNER ARCHITECT ENGINEER
 LESSEE AGENT WITH POWER OF ATTORNEY
 CONTRACTOR ATTORNEY IN FACT

APPLICANT'S CERTIFICATION

I HEREBY CERTIFY AND AGREE THAT IF A PERMIT IS ISSUED FOR THE CONSTRUCTION DESCRIBED IN THIS APPLICATION, ALL THE PROVISIONS OF THE PERMIT AND ALL LAWS AND ORDINANCES THERE TO WILL BE COMPLIED WITH.

NOTICE TO APPLICANT

HOLD HARMLESS CLAUSE: The Permittee(s) by acceptance of the permit, agree(s) to indemnify and hold harmless the City and County of San Francisco from and against any and all claims, demands and actions for damages resulting from operations under this permit, regardless of negligence of the City and County of San Francisco, and to assume the defense of the City and County of San Francisco against all such claims, demands and actions.

In conformity with the provisions of Section 3800 of the Labor Code of the State of California, the applicant shall have on file with the Central Permit Bureau, either Certificate (I) or (II) or (III) designated below or shall indicate item (IV) or (V) or (VI) below, whichever is applicable. If however, item (VI) is checked then item (V) must be checked as well. Mark the appropriate method of compliance below:

() I. Certificate of Consent to Sell-Insure issued by the Director of Industrial Relations.
 () II. Certificate of Workman's Compensation Insurance issued by an admitted insurer.
 () III. An exact copy or duplicate of (I) certified by the Director or (II) certified by the insurer.
 (X) IV. The cost of the work to be performed is \$100 or less.
 I certify that in the performance of the work for which this Permit is issued, I shall not employ any person in any manner so as to become subject to the workman's compensation laws of California. I further acknowledge that I understand, in the event that I should become subject to the workman's compensation provisions of the Labor Code of California and fail to comply forthwith with the provisions of Section 3800 of the Labor Code, that the Permit herein applied for shall be deemed revoked.
 (X) VI. I certify as the owner (or the agent of the owner) that in the performance of the work for which this Permit is issued, I will employ a contractor who complies with the workman's compensation laws of California and who carries file, or prior to the commencement of any work will file, with the Central Permit Bureau evidence that workman's compensation insurance is carried.

Applicant's Signature _____ Date _____

CONDITIONS AND STIPULATIONS

If the image of this document appears less sharp than this notice, it is due to the quality of the original.

| | |
|--|--|
| <input checked="" type="checkbox"/> <p>APPROVED: CANCELLED <i>n/p [Signature]</i> 2/20/92 BUILDING INSPECTOR, BUR. OF BLDG. INSP.</p> | DATE: _____ REASON: _____ NOTIFIED MR. _____ |
| <input type="checkbox"/> <p>APPROVED: <i>Minor addition</i></p> | DATE: _____ REASON: _____ NOTIFIED MR. _____ |
| <p>CATEGORICALLY EXEMPT FROM ENVIRONMENTAL IMPACT STATEMENT PLANNING JAN 14 1992</p> | |
| <input checked="" type="checkbox"/> <p>APPROVED: <i>Reviewed for routing</i></p> | DATE: _____ REASON: _____ NOTIFIED MR. _____ |
| <input checked="" type="checkbox"/> <p>APPROVED: SPECIAL INSPECTION AND REPORTS REQUIRED PER SECTION 299.2 b. c. SUBMIT REPORTS TO THE CHIEF OF BLDG. INSPECTION FOR THE FOLLOWING: <i>See Draw #5</i></p> | DATE: _____ REASON: _____ NOTIFIED MR. _____ |
| <input type="checkbox"/> <p>APPROVED: _____ BUREAU OF ENGINEERING</p> | DATE: _____ REASON: _____ NOTIFIED MR. _____ |
| <input type="checkbox"/> <p>APPROVED: _____ DEPARTMENT OF PUBLIC HEALTH</p> | DATE: _____ REASON: _____ NOTIFIED MR. _____ |
| <input checked="" type="checkbox"/> <p>APPROVED: <i>Albert Lam 7/21/92</i> PBD-MB</p> | DATE: _____ REASON: _____ NOTIFIED MR. _____ |
| <input type="checkbox"/> <p>APPROVED: _____</p> | DATE: _____ REASON: _____ NOTIFIED MR. _____ |

HOLD SECTION - NOTE DATES AND NAMES OF ALL PERSONS NOTIFIED DURING PROCESSING

By signing this permit, the applicant certifies that the information furnished is true and correct to the best of their knowledge and belief, and that the work to be performed complies with the applicable laws, rules and regulations of the State of California.

[Signature]
Authorized Agent

CENTRAL PERMIT BUREAU
450 McALLISTER STREET
SAN FRANCISCO, CA 94102

Appl. # _____
Address _____

LICENSED CONTRACTOR'S STATEMENT

Licensed Contractor's Declaration

Pursuant to the Business and Professions Code Sec. 7031.5, I hereby affirm that I am licensed under the provisions of Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License Number _____ License Class _____

Expiration Date _____ Contractor _____

PRINT

SIGNATURE

Owner-Builder Declaration

I hereby affirm that I am exempt from the Contractor's License Law, Business and Professions Code (Sec. 7031.5). (Mark the appropriate box below.)

I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044). I further acknowledge that I understand and agree that in the event that any work is commenced contrary to the representations contained herein, that the Permit herein applied for shall be deemed cancelled.

architect, agent
 I, as owner, am contracting with licensed contractors to construct this project (Sec. 7044). I certify that at the time such contractors are selected, I will have them file a copy of this form (Licensed Contractors Declaration) prior to the commencement of any work. I further acknowledge that I understand and agree that, in the event that said contractors fail to file a copy of the Declaration with the Central Permit Bureau, that the Permit herein applied for shall be deemed cancelled.

I am exempt under Business and Professions Code Sec. _____
Reason _____

Architect (PRINT) _____

Date 10 January 1992 Agent (PRINT) John H. O'Neil

Owner (PRINT) _____

(SIGNATURE) [Signature]

NOTICE: "Any violation of the Bus. & Prof. Code Sec. 7031.5 by any permit applicant shall be subject to a civil penalty of not more than five hundred dollars (\$500)." Bus. & Prof. Code Sec. 7031.5.

OFFICIAL COPY

SAN FRANCISCO

DEPARTMENT OF BUILDING INSPECTION

00223

If the image of this document appears less sharp than this notice, it is due to the quality of the original.

CERTIFICATION OF AUTHORIZED AGENT

I hereby certify that for the purpose of filing an application for a building or other permit with the Central Permit Bureau, or completion of any form related to the S.F. Building Code, or to City and County ordinances and regulations, or to state laws and codes, I am the agent of the owner and am authorized to sign all documents connected with this application or permit.

I declare under penalty of perjury that the foregoing is true and correct.

[Signature]
Applicant's Signature

John M. O'Neil
Type or Print Name

NG512908
Identification
(Drivers Lic. No., etc.)

CSF Municipal Railway
Owner/Lessee

10 Jan 1992
Date

OFFICIAL COPY

0022

SAN FRANCISCO
DEPARTMENT OF
BUILDING INSPECTION

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SAN FRANCISCO MUNICIPAL RAILWAY 943 PRESIDIO AVENUE SAN FRANCISCO CALIF 94115 415 673 6604

January 9, 1992

Mr. Lawrence Litchfield
Superintendent, Bureau of Building Inspection
450 McAllister Street, Room 202
San Francisco, CA 94102

Subject: Municipal Railway Contract No. MR-1012
Cable Car Barn Office Addition
Permit Application

Dear Mr. Litchfield:

Enclosed please find the plans for the subject project.

It is the intention of the Municipal Railway to submit the plans for review and issuance of a permit prior to letting a contract for bidding. Therefore, the plans are being forwarded to your office.

A Direct Payment Voucher will be sent under separate cover to pay the permit fees. The Direct Payment Voucher will consist of following:

| | |
|--------------------|----------|
| 1. BBI Inspection | \$200.00 |
| 2. Plan Check | 693.71 |
| 3. Expediter | 24.50 |
| 4. DAC | 9.75 |
| 5. Fire Plan Check | 295.00 |
| 6. Fire Inspector | 125.00 |
| 7. SMP | 36.00 |

Total \$1,383.96

If you should require additional information please contact John M. O'Neill, Project Manager at 923-6380

Thank you for your assistance in this matter.

Sincerely,

Edward W. Pearson
Deputy General Manager
Plant Engineering & Construction

EWP:JO'N:c1

OFFICIAL COPY

002259

SAN FRANCISCO
DEPARTMENT OF
BUILDING INSPECTION

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SAN FRANCISCO MUNICIPAL RAILWAY 949 PRESIDIO AVENUE, SAN FRANCISCO, CALIF. 94115 415-573-6884



MUNI Dept. only
Valid Project ?

Disc 150

MEMORANDUM

DATE: March 12, 1993
TO: Ed Harrington
Controller
FROM: John O'Neill ^{OO?}
Project Manager
SUBJECT: Direct Payment Voucher
to Bureau of Building Inspection

Your approval is requested for the certification of the attached direct payment voucher in the amount of \$1,415.21 representing payment of permit fees and an application extension fee to the Bureau of Building Inspection to provide for the addition of offices at the Cable Car Barn.

A direct payment voucher is being submitted as Building Inspection will not accept journal entry fund transfers for permits.

When processed, please have the check "in-housed" to me at the above address,

Municipal Railway
Presidio Division, Room 150

If you or your staff should require additional information, please call me at 923-6380.

JON:RR:c1
Enclosure

OFFICIAL COPY

SAN FRANCISCO

DEPARTMENT OF BUILDING INSPECTION

CITY AND COUNTY OF SAN FRANCISCO DIRECT PAYMENT VOUCHER

TO: CCSF DPW Bureau of Building Inspection
450 McAllister Street, Room 104
San Francisco, CA 94102

FOR: Building Permit Extension Fee for
1201 Mason Street, Cable Car Barn
Application Number 9200481

Extension Fees \$31.25
Total Amount \$31.25

| | | | |
|--|-----------------|--|-----------------|
| DEPARTMENT 35 Railway | | CONTROLLER'S NO. DP 35-21415 | |
| DEPT DIV / SEC | FUND CTR / FUND | FISCAL YEAR | DATE |
| 35/00/00 | 31-001 | 92 12 | 6/03/93 |
| CONTRACT NO. OR OTHER PURCHASING AUTHORITY | | FT | PAGE 1 OF 1 |
| | | FA | |
| | | | DPW CONTROL NO. |

| | |
|---------------------------------|-------------------------------|
| FOR CONTROLLER'S USE ONLY | |
| A | LEGALITY/VALENTY |
| U | VERIFIED |
| D | |
| I | EXTENSIONS & FOOTINGS CHECKED |
| T | |
| BATCH IDENTIFICATION NO. / DATE | |
| POSTING DATE | |
| ACCOUNTING SUPERVISOR | |
| TOTAL PAYMENT AMOUNT | |

CERTIFICATION is hereby made that this expenditure is according to law; that articles or services as shown hereon are for official purposes of the City and County; that any travel advance will be accounted for promptly in accordance with law.

APPROVED FOR MATERIALS, SUPPLIES, AND SERVICES

Thomas J. Ely
DEPARTMENT HEAD

PURCHASER OF SUPPLIES

CHIEF ADMIN. OFFICER, BOARD OF COMMISSIONERS

| LN NO. | TERMS CODE | | DOCUMENT NUMBER | | DOCUMENT REFERENCE NO. | | WARRANT NUMBER OR DUE DATE | | SUBSIDIARY ACCOUNT | | VENDOR NUMBER | INDEX CODE | SUB OBJECT | PROJECT | DEPT. INFO. | AMOUNT |
|--------|------------|---|-----------------|----------|------------------------|---|----------------------------|---|--------------------|---|---------------|------------|------------|---------|-------------|---------|
| | NO. | # | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | | | | | |
| 01 | 3300 | | DP | 35 21415 | | | | | | | 742916 | 1435 | 225 | 01 | | \$31.25 |
| 02 | | | | | | | | | | | | | | | | |
| 03 | | | | | | | | | | | | | | | | |
| 04 | | | | | | | | | | | | | | | | |

FORM NO. 060128 7/84

VENDOR COPY

490805

OFFICIAL COPY

SAN FRANCISCO

DEPARTMENT OF
BUILDING INSPECTION

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City and County of San Francisco



June 22, 1993

City & County of S.F.
949 Presidio Ave
San Francisco, CA 94115

DEPARTMENT OF PUBLIC WORKS
Central Permit Bureau

EXTENSION FOR APPROVED PERMIT APPLICATION

Application No: 9200481
1201 Mason St.
(Address)

Dear Customer:

In response to your letter of March 12, 1993 in which you requested an extension of time during processing of the subject permit application:

Under the provisions of Section 303(a) 1F, S.F. Building Code, the application is extended for a period of 60 days from March 22, 1993 and will be subject to cancellation on May 22, 1993.

No further extensions may be granted.

Very truly yours,

L. L. Litchfield, P.E.
Superintendent
Bureau of Building Inspection

By: *Teresa J. Hannell*
Teresa J. Hannell, Manager
Central Permit Bureau

002259

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(50 Neill - SF Muni)
 949 Presidio Ave 94115
 PUC cert C/W
 including duplicate
 payment of permit
 fees + extension
 fee of \$31.25
 Ret C/W as requested
 payment of \$31.25
 only.

Please
 don't
 cancell

04/05/93

OFFICIAL COPY

SAN FRANCISCO

DEPARTMENT OF
BUILDING INSPECTION

00220

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SAN FRANCISCO MUNICIPAL RAILWAY 949 PRESIDIO AVENUE, SAN FRANCISCO, CALIF. 94115 415-673-6884



Must Dept. review
V. 1.2 P. 25 J. 0.5 ?

Room 150

MEMORANDUM

DATE: March 12, 1993
TO: Ed Harrington
Controller
FROM: John O'Neilly *John*
Project Manager
SUBJECT: Direct Payment Voucher
to Bureau of Building Inspection

Your approval is requested for the certification of the attached direct payment voucher in the amount of \$1,415.21 representing payment of permit fees and an application extension fee to the Bureau of Building Inspection to provide for the addition of offices at the Cable Car Barn.

A direct payment voucher is being submitted as Building Inspection will not accept journal entry fund transfers for permits.

When processed, please have the check "in-housed" to me at the above address,

Municipal Railway
Presidio Division, Room 150

If you or your staff should require additional information, please call me at 923-6380.

JON:RR:cl
Enclosure

OFFICIAL COPY

SAN FRANCISCO

DEPARTMENT OF
BUILDING INSPECTION

0022

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City and County of San Francisco

Department of Public Works
Bureau of Building Inspection



NOTICE OF APPLICATION CANCELLATION
DATE: 03/02/93

UTILITIES ENGINEERING BUREAU
1155 MARKET ST
SAN FRANCISCO, CA 94103

APPLICATION NUMBER: 9200481
ADDRESS: 1201- MASON ST, 0000

APPLICATION APPROVED: 11/12/92

DEAR UTILITIES ENGINEERING BUREAU

YOU ARE HEREBY NOTIFIED THAT YOUR APPLICATION FOR A BUILDING PERMIT AT THE ABOVE NOTED ADDRESS(ES) WILL BE CANCELLED ON 03/22/93.

FOR FURTHER INFORMATION, BRING THIS LETTER TO ROOM 104, 450 MCALLISTER STREET, SAN FRANCISCO. PLEASE DO NOT TELEPHONE. YOU ARE REMINDED THAT BY LAW IT IS NECESSARY TO HAVE A PERMIT ON THE JOB BEFORE WORK CAN BE STARTED.

A ONE TIME EXTENSION OF 60 DAYS, AT ANY POINT DURING THE APPROVAL PROCEDURE, MAY BE GRANTED BY THE SUPERINTENDENT UPON WRITTEN REQUEST BY THE APPLICANT WITH A PAYMENT OF \$31.25 MADE PAYABLE TO DEPARTMENT OF PUBLIC WORKS.

THIS NON REFUNDABLE FEE IS REQUIRED IF YOUR APPLICATION WAS FILED ON OR AFTER FEBRUARY 6, 1989.

VERY TRULY YOURS,

TERESA J. HANSELL, MANAGER
CENTRAL PERMIT BUREAU

CC: CITY & COUNTY OF SF
949 PRESIDIO AVE
SAN FRANCISCO, CA 94115

CENTRAL PERMIT BUREAU
450 MCALLISTER ST.
ROOM 104
SAN FRANCISCO, CA. 94102

(415) 558-6070

PTFIL80,PTLTR2

APPROVED
DEPARTMENT OF BUILDING INSPECTION

DEC 16 1999

DEC 16 1999

FIRE

APPROVED FOR ISSUANCE
DEC 16 1999

BLDG FORM 3/8

APPLICATION NUMBER
09926458

OSHA APPROVAL NEED

NO ADDRESS
APPLICATION FOR BUILDING PERMIT
ADDITIONS, ALTERATIONS OR REPAIRS

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF BUILDING INSPECTION

FORM 3 OTHER AGENCIES REVIEW REQUIRED

FORM 8 OVER-THE-COUNTER ISSUANCE

2 WC 1-1-00
NUMBER OF PLAN SETS

APPLICATION IS HEREBY MADE TO THE DEPARTMENT OF BUILDING INSPECTION OF SAN FRANCISCO FOR PERMISSION TO BUILD IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS SUBMITTED HERewith AND ACCORDING TO THE DESCRIPTION AND FOR THE PURPOSE HEREIN SET FORTH.

| | | | |
|------------------------|-----------------------|---|---------------------------------|
| DATE FILED 12/16/99 | FILED FEE RECEIPT NO. | (1) STREET ADDRESS OF JOB 1201 MASON ST. | BLOCK & LOT |
| PERMIT NO. 894450 | ISSUED 12/16/99 | (2A) ESTIMATED COST OF JOB 6000- | (2B) REVISED COST: BY: DATE: |

INFORMATION TO BE FURNISHED BY ALL APPLICANTS

| LEGAL DESCRIPTION OF EXISTING BUILDING | | | | | | | |
|---|---|--|---|--|---|---|---|
| (1A) TYPE OF CONSTR. I | (1A) NO. OF STORIES OF OCCUPANCY 2 | (1A) NO. OF BASEMENTS AND CELLARS 0 | (1A) PRESENT USE CABLE CTR BROW/MURPHY B | (1A) OCCUP. CLASS B | (1A) NO. OF DWELLING UNITS 0 | | |
| DESCRIPTION OF BUILDING AFTER PROPOSED ALTERATION | | | | | | | |
| (1) TYPE OF CONSTR. I | (1) NO. OF STORIES OF OCCUPANCY 2 | (1) NO. OF BASEMENTS AND CELLARS 0 | (1) PROPOSED USE (LEGAL USE) CABLE CTR BROW/MURPHY B | (1) OCCUP. CLASS B | (1) NO. OF DWELLING UNITS 0 | | |
| (12) IS AUTO RUNWAY TO BE CONSTRUCTED OR ALTERED? | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (11) WILL STREET SPACE BE USED DURING CONSTRUCTION? | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (13) ELECTRICAL WORK TO BE PERFORMED? | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (14) PLUMBING WORK TO BE PERFORMED? | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| (14) GENERAL CONTRACTOR INT'L FIRE EQUIPMENT | ADDRESS 5726 PARADISE DR. CORTE MADERA, CA 94925 | ZIP 94925 | CALIF. LIC. NO. 253912 | EXPIRATION DATE 4/15/01 | | | |
| (15) OWNER - LESSOR (CROSS OUT ONE) | ADDRESS CITY AND COUNTY OF SF, 1201 MASON ST, CA | ZIP | BTRC # | PHONE (FOR CONTACT BY DEPT.) | | | |
| (16) WRITE IN DESCRIPTION OF ALL WORK TO BE PERFORMED UNDER THIS APPLICATION (REFERENCE TO PLANS IS NOT SUFFICIENT) | | | | | | | |
| T. I. SPRINKLER CHANGE FIRE SPRINKLER HEADS FROM DELUG TO REGULATE SPRINKLER SYSTEM REPLACE 29 OPEN SPRINKLERS (RELOCATE) PLUG 29 OPEN SPRINKLERS ADD 6 HEADS NEW 1 1/2" 77-TWINE | | | | | | | |
| ADDITIONAL INFORMATION | | | | | | | |
| (17) DOES THIS ALTERATION CREATE ADDITIONAL HEIGHT OR STORY TO BUILDING? | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (18) IF (17) IS YES, STATE NEW HEIGHT AT CENTERLINE OF FRONT | FT. | (19) DOES THIS ALTERATION CREATE DECK OR PORCH, EXTENSION TO BUILDING? | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (20) IF (19) IS YES, STATE NEW GROUND FLOOR AREA | SQ. FT. |
| (21) WILL SIDEWALK OVER SUB-SIDEWALK SPACE BE REPAIRED OR ALTERED? | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (22) WILL BUILDING EXTEND BEYOND PROPERTY LINE? | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (23) ANY OTHER EXISTING BLDG. ON LOT? IF YES, SHOW ON PLOT PLAN | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> | (24) DOES THIS ALTERATION CONSTITUTE A CHANGE OF OCCUPANCY? | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| (25) ARCHITECT OR ENGINEER (DESIGN OR CONSTRUCTION) | ADDRESS INT'L FIRE 5726 PARADISE DR. CORTE MADERA, CA 94925 | ADDRESS | CALIF. CERTIFICATE NO. | | | | |
| (26) CONSTRUCTION LENDER (ENTER NAME AND BRANCH DESIGNATION IF ANY, IF THERE IS NO LENDER, CONSTRUCTION LENDER, ENTER "UNKNOWN") | | | | | | | |

IMPORTANT NOTICES

No change shall be made in the character of the occupancy or use without first obtaining a Building Permit authorizing such change. See San Francisco Building Code and San Francisco Housing Code.

No portion of building or structure or scaffolding used during construction, to be closer than 6' to any wire containing more than 750 volts. See Sec. 385, California Penal Code.

Pursuant to San Francisco Building Code, the building permit shall be posted on the job. The owner is responsible for approved plans and application being kept at building site.

Grade lines as shown on drawings accompanying this application are assumed to be correct. If actual grade lines are not the same as shown revised drawings showing correct grade lines, cuts and fills together with complete details of retaining walls and wall footings required must be submitted to this department for approval.

ANY STIPULATION REQUIRED HEREIN OR BY CODE MAY BE APPEALED.

BUILDING NOT TO BE OCCUPIED UNTIL CERTIFICATE OF FINAL COMPLETION IS POSTED ON THE BUILDING OR PERMIT OF OCCUPANCY GRANTED, WHEN REQUIRED.

APPROVAL OF THIS APPLICATION DOES NOT CONSTITUTE AN APPROVAL FOR THE ELECTRICAL WIRING OR PLUMBING INSTALLATIONS. A SEPARATE PERMIT FOR THE WIRING AND PLUMBING MUST BE OBTAINED. SEPARATE PERMITS ARE REQUIRED IF ANSWER IS "YES" TO ANY OF ABOVE QUESTIONS (10) (11) (12) (13) (22) OR (24).

THIS IS NOT A BUILDING PERMIT. NO WORK SHALL BE STARTED UNTIL A BUILDING PERMIT IS ISSUED.

In dwellings all insulating materials must have a clearance of not less than two inches from all electrical wires or equipment.

CHECK APPROPRIATE BOX
 OWNER ARCHITECT
 LESSEE AGENT
 CONTRACTOR ENGINEER

APPLICANT'S CERTIFICATION

I HEREBY CERTIFY AND AGREE THAT IF A PERMIT IS ISSUED FOR THE CONSTRUCTION DESCRIBED IN THIS APPLICATION, ALL THE PROVISIONS OF THE PERMIT AND ALL LAWS AND ORDINANCES THERETO WILL BE COMPLIED WITH.

9003-03 (REV. 1/96)

NOTICE TO APPLICANT

HOLD HARMLESS CLAUSE: The permittee(s) by acceptance of the permit, agree(s) to indemnify and hold harmless the City and County of San Francisco from and against any and all claims, demands and actions for damages resulting from operations under this permit, regardless of negligence of the City and County of San Francisco, and to assume the defense of the City and County of San Francisco against all such claims, demands or actions.

In conformity with the provisions of Section 3800 of the Labor Code of the State of California, the applicant shall have coverage under (I), or (II) designated below or shall indicate item (II), or (IV), or (V), whichever is applicable. If however item (V) is checked item (IV) must be checked as well. Mark the appropriate method of compliance below:

I hereby affirm under penalty of perjury one of the following declarations:

() I. I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

(X) II. I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: REPUBLIC INDEPENDENT
Policy Number: 13611301

() III. The cost of the work to be done is \$100 or less.

() IV. I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California. I further acknowledge that I understand that in the event that I should become subject to the workers' compensation provisions of the Labor Code of California and fail to comply therewith with the provisions of Section 3800 of the Labor Code, that the permit herein applied for shall be deemed revoked.

() V. I certify as the owner (or the agent for the owner) that in the performance of the work for which this permit is issued, I will employ a contractor who complies with the workers' compensation laws of California and who, prior to the commencement of any work, will file a completed copy of this form with the Central Permit Bureau.

Signature of Applicant or Agent: [Signature] Date: 12/16/99



CENTRAL PERMIT BUREAU
1660 MISSION STREET
SAN FRANCISCO, CA 94103

Appl. # _____
Address _____

LICENSED CONTRACTOR'S STATEMENT

Licensed Contractor's Declaration

Pursuant to the Business and Professions Code Sec. 7031.5, I hereby affirm under penalty of perjury that I am licensed under the provisions of Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License Number 253912 License Class C-16
Expiration Date 4/30/01 Contractor INT'L FIRE
PRINT
[Signature]
SIGNATURE

Owner-Builder Declaration

I hereby affirm under penalty of perjury that I am exempt from the Contractor's License Law, Business and Professions Code (Sec. 7031.5). (Mark the appropriate box below.)

____ I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044). I further acknowledge that I understand and agree that in the event that any work is commenced contrary to the representations contained herein, that the Permit herein applied for shall be deemed suspended.

____ architect, agent

I, as owner of the property, am exclusively contracting with licensed contractors to construct this project (Sec. 7044). I certify that at the time such contractors are selected, I will have them file a copy of this form (Licensed Contractor's Declaration) prior to the commencement of any work. I further acknowledge that I understand and agree that, in the event that said contractors fail to file a copy of the Declaration with the Central Permit Bureau, that the Permit herein applied for shall be deemed suspended.

____ I am exempt under Business and Professions Code Sec. _____

Reason _____

____ Architect (PRINT) _____

Date _____ Agent (PRINT) _____

____ Owner (PRINT) _____

(SIGNATURE) _____

NOTICE: "Any violation of the Bus. & Prof. Code Sec. 7031.5 by any permit applicant shall be subject to a civil penalty of not more than five hundred dollars (\$500)." Bus. & Prof. Code Sec. 7031.5.



CERTIFICATION OF AUTHORIZED AGENT

I hereby certify that for the purpose of filing an application for a building or other permit with the Central Permit Bureau, or completion of any form related to the S.F. building Code, or to City and County ordinances and regulations, or to state laws and codes, I am the agent of the owner and am authorized to sign all documents connected with this application or permit.

I declare under penalty of perjury that the foregoing is true and correct.

[Signature]
Applicant's Signature

P. DIETZ
Type or Print Name

N-9637000
Identification
(Drivers Lic. No., etc.)

City and County of SF
 Owner/Lessee

12/16/99
Date



APPROVED Dept. of Building Insp.

MAR 25 2015

SFFD INSP. FEES REQ.



APPROVED FOR ISSUANCE MAR 25 2015

BLDG. FORM 3/8

APPLICATION NUMBER

APPROVAL NUMBER

NW

Tom C. Hui, Director

APPLICATION FOR BUILDING PERMIT ADDITIONS, ALTERATIONS OR REPAIRS

FORM 3 OTHER AGENCIES REVIEW REQUIRED FORM 8 OVER-THE-COUNTER ISSUANCE

2 NUMBER OF PLAN SETS

CITY AND COUNTY OF SAN FRANCISCO DEPARTMENT OF BUILDING INSPECTION APPLICATION IS HEREBY MADE TO THE DEPARTMENT OF BUILDING INSPECTION OF SAN FRANCISCO FOR PERMISSION TO BUILD IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS SUBMITTED HERewith AND ACCORDING TO THE DESCRIPTION AND FOR THE PURPOSE HEREINAFTER SET FORTH.

DO NOT WRITE ABOVE THIS LINE

Table with fields: DATE FILED (3/25/15), FILING FEE RECEIPT NO., (1) STREET ADDRESS OF JOB (1201 MASON SF), BLOCK & LOT (0190/1005), PERMIT NO. (1352698), ISSUED (3/25/15), (2A) ESTIMATED COST OF JOB (\$3,000), (2B) REVISED COST, BY (41028), DATE (3-25-15)

INFORMATION TO BE FURNISHED BY ALL APPLICANTS

LEGAL DESCRIPTION OF EXISTING BUILDING

Table with fields: (4A) TYPE OF CONSTR. (V), (5A) NO. OF STORIES OF OCCUPANCY (2), (6A) NO. OF BASEMENTS AND CELLARS (1), (7A) PRESENT USE (Cable Car Museum), (8A) OCCUP. CLASS (B/A3), (9A) NO. OF DWELLING UNITS (0)

DESCRIPTION OF BUILDING AFTER PROPOSED ALTERATION

Table with fields: (4) TYPE OF CONSTR. (V), (5) NO. OF STORIES OF OCCUPANCY (2), (6) NO. OF BASEMENTS AND CELLARS (1), (7) PROPOSED USE (LEGAL USE) (Cable Car Museum), (8) OCCUP. CLASS (B/A3), (9) NO. OF DWELLING UNITS (0)

Table with fields: (10) IS AUTO RUNWAY TO BE CONSTRUCTED OR ALTERED?, (11) WILL STREET SPACE BE USED DURING CONSTRUCTION?, (12) ELECTRICAL WORK TO BE PERFORMED?, (13) PLUMBING WORK TO BE PERFORMED?

Table with fields: (14) GENERAL CONTRACTOR (Int. Fire), ADDRESS (765 PENNSYLVANIA SF), ZIP (415), PHONE (415 6431767), CALIF. LIC. NO. (C16 965370), EXPIRATION DATE (9/15)

Table with fields: (15) OWNER - LESSEE (GROSS OUT, ONE) (S.F. Cable Car Museum), ADDRESS, ZIP, BTRCN, PHONE (FOR CONTACT BY DEPT.)

(16) WRITE IN DESCRIPTION OF ALL WORK TO BE PERFORMED UNDER THIS APPLICATION (REFERENCE TO PLANS IS NOT SUFFICIENT)

To install 2 fire sprinkler heads in new office.

ADDITIONAL INFORMATION

Table with fields: (17) DOES THIS ALTERATION CREATE ADDITIONAL HEIGHT OR STORY TO BUILDING?, (18) IF (17) IS YES, STATE NEW HEIGHT AT CENTER LINE OF FRONT, (19) DOES THIS ALTERATION CREATE DECK OR HORIZ. EXTENSION TO BUILDING?, (20) IF (19) IS YES, STATE NEW GROUND FLOOR AREA, (21) WILL SIDEWALK OVER SUB-SIDEWALK SPACE BE REPAIRED OR ALTERED?, (22) WILL BUILDING EXTEND BEYOND PROPERTY LINE?, (23) ANY OTHER EXISTING BLDG. ON LOT? (IF YES, SHOW ON LOT/ PLAN), (24) DOES THIS ALTERATION CONSTITUTE A CHANGE OF OCCUPANCY?

Table with fields: (25) ARCHITECT OR ENGINEER (DESIGN OR CONSTRUCTION) (International Fire), ADDRESS (765 PENNSYLVANIA SF), CALIF. CERTIFICATE NO. (C16 965370)

Table with fields: (26) CONSTRUCTION LENDER (ENTER NAME AND BRANCH DESIGNATION IF ANY. IF THERE IS NO KNOWN CONSTRUCTION LENDER, ENTER "UNKNOWN")

IMPORTANT NOTICES

No change shall be made in the character of the occupancy or use without first obtaining a Building Permit authorizing such change. See San Francisco Building Code and San Francisco Housing Code.

No portion of building or structure or scaffolding used during construction is to be closer than 6'0" to any wire containing more than 750 volts. See Sec. 385, California Penal Code.

Pursuant to San Francisco Building Code, the building permit shall be posted on the job. The owner is responsible for approved plans and application being kept at building site.

Grade lines as shown on drawings accompanying this application are assumed to be correct. If actual grade lines are not the same as shown, revised drawings showing correct grade lines, cuts and fills, and complete details of retaining walls and wall footings must be submitted to this department for approval.

ANY STIPULATION REQUIRED HEREIN OR BY CODE MAY BE APPEALED.

BUILDING NOT TO BE OCCUPIED UNTIL CERTIFICATE OF FINAL COMPLETION IS POSTED ON THE BUILDING OR PERMIT OF OCCUPANCY GRANTED, WHEN REQUIRED.

APPROVAL OF THIS APPLICATION DOES NOT CONSTITUTE AN APPROVAL FOR THE ELECTRICAL WIRING OR PLUMBING INSTALLATIONS. A SEPARATE PERMIT FOR THE WIRING AND PLUMBING MUST BE OBTAINED. SEPARATE PERMITS ARE REQUIRED IF ANSWER IS "YES" TO ANY OF ABOVE QUESTIONS (10) (11) (12) (13) (22) OR (24).

THIS IS NOT A BUILDING PERMIT. NO WORK SHALL BE STARTED UNTIL A BUILDING PERMIT IS ISSUED.

In dwellings, all insulating materials must have a clearance of not less than two inches from all electrical wires or equipment.

CHECK APPROPRIATE BOX

- OWNER, LESSEE, CONTRACTOR, ARCHITECT, AGENT, ENGINEER

APPLICANT'S CERTIFICATION

I HEREBY CERTIFY AND AGREE THAT IF A PERMIT IS ISSUED FOR THE CONSTRUCTION DESCRIBED IN THIS APPLICATION, ALL THE PROVISIONS OF THE PERMIT AND ALL LAWS AND ORDINANCES THERETO WILL BE COMPLIED WITH.

NOTICE TO APPLICANT

HOLD HARMLESS CLAUSE. The permittee(s) by acceptance of the permit, agree(s) to indemnify and hold harmless the City and County of San Francisco from and against any and all claims, demands and actions for damages resulting from operations under this permit, regardless of negligence of the City and County of San Francisco, and to assume the defense of the City and County of San Francisco against all such claims, demands or actions.

In conformity with the provisions of Section 3800 of the Labor Code of the State of California, the applicant shall have worker's compensation coverage under (i) or (ii) designated below, or shall indicate item (iii), (iv), or (v), whichever is applicable. If however item (v) is checked, item (iv) must be checked as well. Mark the appropriate method of compliance below.

I hereby affirm under penalty of perjury one of the following declarations:

() I. I have and will maintain a certificate of consent to self-insure for worker's compensation, as provided by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

(X) II. I have and will maintain worker's compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My worker's compensation insurance carrier and policy number are: Martell

Carrier: Martell, Policy Number: MWCC00123107

() III. The cost of the work to be done is \$100 or less.

() IV. I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the worker's compensation laws of California. I further acknowledge that I understand that in the event that I should become subject to the worker's compensation provisions of the Labor Code of California and fail to comply therewith with the provisions of Section 3800 of the Labor Code, that the permit herein applied for shall be deemed revoked.

() V. I certify as the owner (or the agent for the owner) that in the performance of the work for which this permit is issued, I will employ a contractor who complies with the worker's compensation laws of California and who, prior to the commencement of any work, will file a completed copy of this form with the Central Permit Bureau.

Signature of Applicant or Agent: [Signature], Date: 3/25/15

OFFICIAL COPY

SAN FRANCISCO
DEPARTMENT OF
BUILDING INSPECTION

CONDITIONS AND STIPULATIONS

REFER TO: APPROVED:

BUILDING INSPECTOR, DEPT. OF BLDG. INSP.

DATE: _____
REASON: _____

APPROVED:
DEPARTMENT OF CITY PLANNING

NOTIFIED MR. _____
DATE: _____
REASON: _____

APPROVED:
Michelle McCoy, SFFD
MAR 25 2016
BUREAU OF FIRE PREVENTION & PUBLIC SAFETY

NOTIFIED MR. _____
DATE: _____
REASON: _____

APPROVED:
MECHANICAL ENGINEER, DEPT. OF BLDG. INSPECTION

NOTIFIED MR. _____
DATE: _____
REASON: _____

APPROVED:
CIVIL ENGINEER, DEPT. OF BLDG. INSPECTION

NOTIFIED MR. _____
DATE: _____
REASON: _____

APPROVED:
BUREAU OF ENGINEERING

NOTIFIED MR. _____
DATE: _____
REASON: _____

APPROVED:
DEPARTMENT OF PUBLIC HEALTH

NOTIFIED MR. _____
DATE: _____
REASON: _____

APPROVED:
REDEVELOPMENT AGENCY

NOTIFIED MR. _____
DATE: _____
REASON: _____

APPROVED:
HOUSING INSPECTION DIVISION

NOTIFIED MR. _____
DATE: _____
REASON: _____

HOLD SECTION - NOTE DATES AND NAMES OF ALL PERSONS NOTIFIED DURING PROCESSING

I agree to comply with all conditions or stipulations of the various bureaus or departments noted on this application, and attached statements of conditions or stipulations, which are hereby made a part of this application.

Number of attachments

OWNER'S AUTHORIZED AGENT



City and County of San Francisco
Department of Building Inspection



Edwin M. Lee, Mayor
Tom C. Hui, S.E., C.B.O., Director

LICENSED CONTRACTOR'S STATEMENT

Permit Application No. 2015 03 25 1920

Job Address: 1201 Mason

Licensed Contractor's Declaration

Pursuant to the Business and Professions Code Sec. 7031.5, I hereby affirm under penalty of perjury that I am licensed under the provisions of Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License Number 965370

License Class C 16

Expiration Date 9/30/15

Contractor

Joe Puccio

PRINT

[Signature]

SIGNATURE

NOTE: "Any violation of the Bus. & Prof. Code Sec 7031.5 by any permit applicant shall be subject to a civil penalty of not more than five hundred dollars (\$500)" Bus. & Prof. Code Sec. 7031.5. Revised 10/1/2013.



APPROVED
Dept. of Building Insp.

AUG 05 2015

Tom C. Hui

TOM C. HUI, S.E.
DIRECTOR

DEPT. OF BUILDING INSPECTION

APPROVED FOR ISSUANCE

AUG 05 2015

REQ. 3/8

APPLICATION NUMBER

APPROVAL NUMBER

OSHA APPROVAL REQ'D

nv

APPLICATION FOR BUILDING PERMIT
ADDITIONS, ALTERATIONS OR REPAIRS

FORM 3 OTHER AGENCIES REVIEW REQUIRED
FORM 8 OVER-THE-COUNTER ISSUANCE

2 NUMBER OF PLAN SETS

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF BUILDING INSPECTION

APPLICATION IS HEREBY MADE TO THE DEPARTMENT OF
BUILDING INSPECTION OF SAN FRANCISCO FOR
PERMISSION TO BUILD IN ACCORDANCE WITH THE PLANS
AND SPECIFICATIONS SUBMITTED HERewith AND
ACCORDING TO THE DESCRIPTION AND FOR THE PURPOSE
HEREINAFTER SET FORTH.

AUG 05 2015

7-30-2015

FILING FEE RECEIPT NO.

(1) STREET ADDRESS OF JOB

BLOCK & LOT

1201 Mason St

0190-005

PERMIT NO. 1365250

ISSUED 8/5/15

(24) ESTIMATED COST OF JOB \$20,000.00

(26) REVISED COST: \$20,000

DATE 7-31-15

INFORMATION TO BE FURNISHED BY ALL APPLICANTS

LEGAL DESCRIPTION OF EXISTING BUILDING

Table with 6 columns: (4A) TYPE OF CONSTR., (5A) NO. OF STORIES OF OCCUPANCY, (6A) NO. OF BASEMENTS AND CELLARS, (7A) PRESENT USE, (8A) OCCUP. CLASS, (9A) NO. OF DWELLING UNITS.

DESCRIPTION OF BUILDING AFTER PROPOSED ALTERATION

Table with 6 columns: (4) TYPE OF CONSTR., (5) NO. OF STORIES OF OCCUPANCY, (6) NO. OF BASEMENTS AND CELLARS, (7) PROPOSED USE (LEGAL USE), (8) OCCUP. CLASS, (9) NO. OF DWELLING UNITS.

Table with 6 columns: (10) IS AUTO RUNWAY TO BE CONSTRUCTED OR ALTERED?, (11) WILL STREET SPACE BE USED DURING CONSTRUCTION?, (12) ELECTRICAL WORK TO BE PERFORMED?, (13) PLUMBING WORK TO BE PERFORMED?

Table with 6 columns: (14) GENERAL CONTRACTOR, ADDRESS, ZIP, PHONE, CALIF. LIC. NO., EXPIRATION DATE.

Table with 6 columns: (15) OWNER - LESSEE (CROSS OUT ONE), ADDRESS, ZIP, BTRC#, PHONE (FOR CONTACT BY DEPT.).

(16) WRITE IN DESCRIPTION OF ALL WORK TO BE PERFORMED UNDER THIS APPLICATION (REFERENCE TO PLANS IS NOT SUFFICIENT)
Install Radio Cabinet.
Install DIS Server. Install Cables of Huberflex fiber optic
PC in conduits and trays. Install Antennas on balist
mounts on roof and building.

ADDITIONAL INFORMATION

Table with 4 columns: (17) DOES THIS ALTERATION CREATE ADDITIONAL HEIGHT OR STORY TO BUILDING?, (18) IF (17) IS YES, STATE NEW HEIGHT AT CENTER LINE OF FRONT, (19) DOES THIS ALTERATION CREATE DECK OR HORIZ. EXTENSION TO BUILDING?, (20) IF (19) IS YES, STATE NEW GROUND FLOOR AREA.

Table with 4 columns: (21) WILL SIDEWALK OVER SUB-SIDEWALK SPACE BE REPAIRED OR ALTERED?, (22) WILL BUILDING EXTEND BEYOND PROPERTY LINE?, (23) ANY OTHER EXISTING BLDG. ON LOT? (IF YES, SHOW ON LOT PLAN), (24) DOES THIS ALTERATION CONSTITUTE A CHANGE OF OCCUPANCY?

Table with 2 columns: (25) ARCHITECT OR ENGINEER (DESIGN OR CONSTRUCTION), ADDRESS, CALIF. CERTIFICATE NO.

Table with 2 columns: (26) CONSTRUCTION LENDER (ENTER NAME AND BRANCH DESIGNATION IF ANY. IF THERE IS NO KNOWN CONSTRUCTION LENDER, ENTER "UNKNOWN"), ADDRESS.

IMPORTANT NOTICES

No change shall be made in the character of the occupancy or use without first obtaining a Building Permit authorizing such change. See San Francisco Building Code and San Francisco Housing Code.

No portion of building or structure or scaffolding used during construction is to be closer than 6'0" to any wire containing more than 750 volts. See Sec 385, California Penal Code.

Pursuant to San Francisco Building Code, the building permit shall be posted on the job. The owner is responsible for approved plans and application being kept at building site.

Grade lines as shown on drawings accompanying this application are assumed to be correct. If actual grade lines are not the same as shown, revised drawings showing correct grade lines, cuts and fills, and complete details of retaining walls and wall footings must be submitted to this department for approval.

ANY STIPULATION REQUIRED HEREIN OR BY CODE MAY BE APPEALED.

BUILDING NOT TO BE OCCUPIED UNTIL CERTIFICATE OF FINAL COMPLETION IS POSTED ON THE BUILDING OR PERMIT OF OCCUPANCY GRANTED, WHEN REQUIRED.

APPROVAL OF THIS APPLICATION DOES NOT CONSTITUTE AN APPROVAL FOR THE ELECTRICAL WIRING OR PLUMBING INSTALLATIONS. A SEPARATE PERMIT FOR THE WIRING AND PLUMBING MUST BE OBTAINED. SEPARATE PERMITS ARE REQUIRED IF ANSWER IS "YES" TO ANY OF ABOVE QUESTIONS (10) (11) (12) (13) (22) OR (24).

THIS IS NOT A BUILDING PERMIT. NO WORK SHALL BE STARTED UNTIL A BUILDING PERMIT IS ISSUED.

In dwellings, all insulating materials must have a clearance of not less than two inches from all electrical wires or equipment.

CHECK APPROPRIATE BOX

- OWNER
LESSEE
CONTRACTOR
ARCHITECT
AGENT
ENGINEER

APPLICANT'S CERTIFICATION

I HEREBY CERTIFY AND AGREE THAT IF A PERMIT IS ISSUED FOR THE CONSTRUCTION DESCRIBED IN THIS APPLICATION, ALL THE PROVISIONS OF THE PERMIT AND ALL LAWS AND ORDINANCES THERE TO WILL BE COMPLIED WITH.

NOTICE TO APPLICANT

HOLD HARMLESS CLAUSE. The permittee(s) by acceptance of the permit, agree(s) to indemnify and hold harmless the City and County of San Francisco from and against any and all claims, demands and actions for damages resulting from operations under this permit, regardless of negligence of the City and County of San Francisco, and to assume the defense of the City and County of San Francisco against all such claims, demands or actions.

In conformity with the provisions of Section 3800 of the Labor Code of the State of California, the applicant shall have worker's compensation coverage under (i) or (ii) designated below, or shall indicate item (iii), (iv), or (v), whichever is applicable. If however item (v) is checked, item (iv) must be checked as well. Mark the appropriate method of compliance below.

I hereby affirm under penalty of perjury one of the following declarations:

() I. I have and will maintain a certificate of consent to self-insure for worker's compensation, as provided by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

(X) II. I have and will maintain worker's compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My worker's compensation insurance carrier and policy number are: State Farm

() III. The cost of the work to be done is \$100 or less. 9030168

() IV. I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the worker's compensation laws of California. I further acknowledge that I understand that in the event that I should become subject to the worker's compensation provisions of the Labor Code of California and fail to comply therewith with the provisions of Section 3800 of the Labor Code, that the permit herein applied for shall be deemed revoked.

() V. I certify as the owner (or the agent for the owner) that in the performance of the work for which this permit is issued, I will employ a contractor who complies with the worker's compensation laws of California and who, prior to the commencement of any work, will file a completed copy of this form with the Central Permit Bureau.

Signature of Applicant or Agent

7-31-15

OFFICIAL COPY

SAN FRANCISCO

CONDITIONS AND STIPULATIONS

REFER TO: APPROVED: David Pang, DBI

JUL 31 2015

BUILDING INSPECTOR, DEPT. OF BLDG. INSP.

APPROVED: [check] [signature] on 8/4/15 OMAN DEPARTMENT OF CITY PLANNING MASBY

APPROVED: [check] N/A JAS 8/4/15 BUREAU OF FIRE PREVENTION & PUBLIC SAFETY

APPROVED: [] N/A [signature] MECHANICAL ENGINEER, DEPT. OF BLDG. INSPECTION

APPROVED: [] [signature] CIVIL ENGINEER, DEPT. OF BLDG. INSPECTION

APPROVED: [] [signature] BUREAU OF ENGINEERING

APPROVED: [check] [signature] DEPARTMENT OF PUBLIC HEALTH 8/5/15

APPROVED: [] N/A [signature] REDEVELOPMENT AGENCY

APPROVED: [] [signature] HOUSING INSPECTION DIVISION

DATE: REASON: NOTIFIED MR. DATE: REASON: NOTIFIED MR.

HOLD SECTION - NOTE DATES AND NAMES OF ALL PERSONS NOTIFIED DURING PROCESSING

I agree to comply with all conditions or stipulations of the various bureaus or departments noted on this application, and attached statements of conditions or stipulations, which are hereby made a part of this application.

Number of attachments []

OWNER'S AUTHORIZED AGENT



City and County of San Francisco
Department of Building Inspection



Edwin M. Lee, Mayor
Tom C. Hui, S.E., C.B.O., Director

LICENSED CONTRACTOR'S STATEMENT

Permit Application No. _____

Job Address: _____

Licensed Contractor's Declaration

Pursuant to the Business and Professions Code Sec. 7031.5, I hereby affirm under penalty of perjury that I am licensed under the provisions of Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License Number 980705

License Class C10 BI

Expiration Date 1 / 31 / 2017

Contractor

Champion Telecom
PRINT

Cresty Dey
SIGNATURE

NOTE: "Any violation of the Bus. & Prof. Code Sec 7031.5 by any permit applicant shall be subject to a civil penalty of not more than five hundred dollars (\$500)" Bus. & Prof. Code Sec. 7031.5. Revised 10/1/2013.



City and County of San Francisco
Department of Building Inspection



Edwin M. Lee, Mayor
Tom C. Hui, S.E., C.B.D., Director

PERMIT APPLICANT AND AUTHORIZED AGENT
DISCLOSURE AND CERTIFICATION

Date: 7-5-2015 New Amended
Permit Application No. 2015-07-31-3054 Job Address: 1201 Mason St

This form must be completed in its entirety in connection with an application for a building permit (Forms 1/2, 3/8, 4/7, 6 and 8).
This form must be amended for all new information or change in information for duration of project. Please be advised that the Department does not regulate permit expeditors/consultants or afford them preferential treatment.

A. Permit Applicant Information

I hereby certify that for the purpose of filling an application for a building or other permit with the Central Permit Bureau, or completion of any from related to the San Francisco Building Code, or to City and County ordinances and regulations, or to state laws and codes, I am the owner, the lessee or the agent of the owner/lessee and am authorized to sign all documented connected with this application or permit.

I declare under penalty of perjury that the foregoing is true and correct. I am the permit applicant and I am

Check box(es):

- The owner (B)* The lessee (C)
- The authorized agent. Check entity(ies):
 - Architect (D) Engineer (E)
 - Contractor (E) Attorney (F)
 - Permit Consultant/Expediter (G)
 - Other, _____ (H)

Print Applicant Name Gregory Day
Sign Name Gregory Day

B. Owner Information

Name SFMTA
Phone _____
Address 1 South Van Ness
San Francisco CA
City _____ State _____ Zip _____

C. Lessee Information

Name _____
Phone _____
Address _____
City _____ State _____ Zip _____

D. Architect/Engineer Information

- None List of all Architect(s)/Engineer(s) on project:

A. Name _____
 Architect Engineer
Phone No. _____
Firm Name _____
License # _____
Expiration Date _____
Firm Address _____
City _____ State _____ Zip _____

B. Name _____
 Architect Engineer
Phone No. _____
Firm Name _____
License # _____
Expiration Date _____
Firm Address _____
City _____ State _____ Zip _____

C. Name _____
 Architect Engineer
Phone No. _____
Firm Name _____
License # _____
Expiration Date _____
Firm Address _____
City _____ State _____ Zip _____

E. General Contractor Information

Note: Complete separate licensed contractor's statement also.

Name John Hillebrand
Phone 910 276 8525
Firm Name Champion Telecom
License # 0463899
Expiration Date 08/30/2016
Firm Address 401 Whitney Pl, Fremont
Fremont CA 94539
City _____ State _____ Zip _____

- Contractor not yet selected. If this box is checked; submit an amended form when known.
- Owner-Builder. If this box is checked, submit Owner-Builder Declaration Form.

F. Attorney Information

Name _____
Phone _____
Address _____
City _____ State _____ Zip _____

G. Permit Consultant/Expediter

Name _____
Phone _____
Address _____
City _____ State _____ Zip _____

H. Authorized Agent - Others

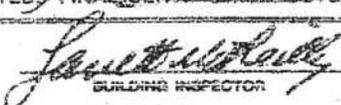
Name Gregory Day
Phone 910 276 8525
Address 401 Whitney Pl, Fremont
Fremont CA 94539
City _____ State _____ Zip _____

Please describe your relationship with the owner.

OFFICIAL COPY



| | | | | | |
|--|-----------------|-------------|------------------|---|-------------|
| 1201 HANCOCK ST | | 7 | | 8207431 | |
| OWNER NAME PUBLIC UTILITIES COMMISSION | | | TELEPHONE | | |
| ESTIMATED COST | FILE DATE | DISPOSITION | DISPOSITION DATE | PERMIT NO | EXPIRE DATE |
| \$12,500,000 | 9/08/82 | ISSUED | 03/02/83 | 498143 | |
| CONSTR. TYPE | OCCUPANCY CODES | | PLANS | STORIES | UNITS |
| 3 3 | F-2 B-1 G | | 2 | 2 | |
| CONTACT NAME TUTOR-SALIBA, INC. SYLMAR, CA | | | | DISTRICT BID-INSP 2 | |
| STANDARD DESCRIPTION/BLDG. USE | | | | TELEPHONE 558-2598 | |
| | | | | OTHER DESCRIPTION <i>Renov. Cable Car Garage</i> | |
| SPECIAL INSPECTIONS? | NO | FIRE ZONE | | | |
| SPECIAL USE DISTRICT | | TIDP | NO | | |
| | | PENALTY | NO | COMPLIANCE WITH REPORTS | |
| NOTES: | | | | | |
| PERMIT INSPECTION RECORD DEPARTMENT OF PUBLIC WORKS CITY AND COUNTY OF SAN FRANCISCO BUILDING INSPECTION JOB CARD | | | | | |

| DATE | BUILDING INSPECTORS JOB RECORD |
|----------|--|
| 1 1 | 820 74 31 |
| 5/16/83 | Form work. |
| 6/27/83 | OK TO POUR TIE BEAMS |
| 7 1 | OK Pit walls. |
| 7/11/83 | OK to pour tie beam |
| 7/26/83 | Work in progress. |
| 8/8/83 | Conf with Carl |
| 8/12/83 | Problems still. |
| 11/15/83 | Walk through with Arch. |
| 1/4/84 | OK to cover in floor |
| 2/21/84 | 90% Comp. etc |
| 3/18/84 | Carl and walk through work |
| 1 1 | Proj Manager |
| 4/23/84 | Conf with Contractors |
| 1 1 | Final |
| 1 1 | Spec Inspection OK by Eng |
| 5/2/84 | OK to FINAL |
| 6/26/84 | Inspection with FP. |
| 9/11/84 | Ready for Final |
| 11/2/84 | Hold for FP approval. |
| 11/19/84 | WORK COMPLETED FINAL CERTIFICATE POSTED. |
| APP. NO. |  BUILDING INSPECTOR |

OFFICIAL COPY



ADDRESS OF JOB

BLOCK & LOT

APPT. NO.

1201 MASON

ST

8208280

OWNER NAME

OWNER ADDRESS

PUBLIC UTILITIES COMMISSION

EST COST

FILE DATE

DISPOSITION

DATE

PERMIT NO.

EXPIRATION DATE

\$200,000

10/08/82

ISSUE

12/10/82

495988

CANCELLED

EXTENSION GRANTED

CONTACT NAME

PHONE

DISTRICT

TUTOR SALIBA

558-2598

EID-INSP 2

| FORM | BLDG. TYPE | OCCUPANCY | | | PLANS | STORIES | FAM |
|------|------------|-----------|-----|---|-------|---------|------|
| 3 | | E-3 | F-2 | G | 0 | | 0000 |

DESCRIPTION OF WORK

Demo Work

SPECIAL INSPECTION
REQUIRED?

Y
 N

SPECIAL USE
DISTRICT

Y
 N

FIRE
ZONE

Y
 N

PENALTY FEE?

Y
 NNO

COMPLIANCE WITH REPORTS

BUILDING RECORD
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF SAN FRANCISCO
BUILDING INSPECTION
JOB CARD

OFFICIAL COPY



ADDRESS OF JOB

BLOCK & LOT

APPT. NO.

1201. MASON

ST

8209515

OWNER NAME

OWNER ADDRESS

PUBLIC UTILITIES COMMISSION

EST. COST

FILE DATE

DISPOSITION

DATE

PERMIT NO.

EXPIRATION DATE

\$473,000

11/16/82

ISSUE

12/08/82

495902

CANCELLED

EXTENSION GRANTED

CONTACT NAME

PHONE

DISTRICT

TUTOR-SALIBA, INC. *Harry Chin*

558-2598

BID-INSP 2

776-8990

| FORM | BLDG. TYPE | OCCUPANCY | | | PLANS | STORIES | FAM |
|------|------------|-----------|-----|---|-------|---------|-----|
| 3 | | B-3 | F-2 | G | 2 | | 0 |

DESCRIPTION OF WORK

Shoring for exterior walls

SPECIAL INSPECTION
 REQUIRED?

Y
 N

SPECIAL USE
 DISTRICT

Y
 N

FIRE
 ZONE

PENALTY FEE?

Y
 N

NO

COMPLIANCE WITH REPORTS

BUILDING RECORD
 DEPARTMENT OF PUBLIC WORKS
 CITY AND COUNTY OF SAN FRANCISCO
 BUILDING INSPECTION
 JOB CARD

OFFICIAL COPY



APPL:8209515 STN/SUB: BID-INSP/02 DISP:CO INSP HRS: 1:40
NBR INSPDATE TYPE HOURS SUB NBR INSPDATE TYPE HOURS SUB

1 06/07/83 01 :30
2 08/15/83 01 :20
3 11/15/83 01 :20
4 12/06/83 06 :30

12/6

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| | | | | | | |
|--------------------------------|-----------------|-------------|---|------------|-------------|-------------|
| ADDRESS OF JOB | | BLOCK/LOT | APPLICATION NO. | | | |
| 1201 MASON ST | | | 8301911 | | | |
| OWNER NAME | | | TELEPHONE | | | |
| CCSF-PUC | | | 558-2598 | | | |
| ESTIMATED COST | FILE DATE | DISPOSITION | DISPOSITION DATE | PERMIT NO. | EXPIRE DATE | |
| \$120,000 | 3/14/83 | ISSUED | 04/22/83 | 500101 | 07/21/83 | |
| FORM CONST. TYPE | OCCUPANCY CODES | | PLANS | STORIES | UNITS | DISTRICT |
| 3 3 | B-3 F-2 G | | 2 | 1 | | BID-INSP 02 |
| CONTACT NAME | | | | | TELEPHONE | |
| TUTOR-SALIBA | | | | | | |
| STANDARD DESCRIPTION/BLDG. USE | | | OTHER DESCRIPTION | | | |
| MUNI CARBARN | | | Shoring for New PA - MAIN Chiv-Room. | | | |
| SPECIAL INSPECTIONS? | NO | FIRE ZONE | | | | |
| SPECIAL USE DISTRICT | | TIDF | NO | | | |
| | | PENALTY | NO | | | |
| | | | COMPLIANCE WITH REPORTS | | | |
| NOTES: | | | | | | |

PERMIT INSPECTION RECORD
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF SAN FRANCISCO
BUILDING INSPECTION JOB CARD



DATE BUILDING INSPECTORS JOB RECORD

| DATE | BUILDING INSPECTORS JOB RECORD |
|----------|--------------------------------|
| 1 1 | P30194 |
| 6/27/83 | Demolition work |
| 7/16/83 | work in progress |
| 8/15/83 | Shoring ok |
| 11/15/83 | walls poured |
| 12/6/83 | ok to pour |
| 3/8/84 | 90% complete |
| 4/23/84 | Hold for Special Inspection |
| 1 1 | |
| 5/12/84 | ok to FINAL |
| 1 1 | |
| 5/29/84 | Hold for FINAL |
| 1 1 | |
| 1 1 | |
| 1 1 | |
| 1 1 | |
| 1 1 | |
| 1 1 | |
| 1 1 | |
| 1 1 | |
| 1 1 | |

7/31/84 (WORK COMPLETED. FINAL CERTIFICATE POSTED.)

APP. NO.

Jane M. O'Leary
BUILDING INSPECTOR



| APPL:8301911 | | | | STN/SUB: BID-INSP/02 | | DISP:CO INSP HRS: 3:40 | | | |
|--------------|----------|------|-------|----------------------|-----|------------------------|------|-------|-----|
| NBR | INSPDATE | TYPE | HOURS | SUB | NBR | INSPDATE | TYPE | HOURS | SUB |
| 1 | 06/27/83 | 03 | :20 | | | | | | |
| 2 | 07/26/83 | 01 | :30 | 13 | | | | | |
| 3 | 08/15/83 | 01 | :10 | | | | | | |
| 4 | 11/15/83 | 01 | :20 | | | | | | |
| 5 | 12/06/83 | 01 | :30 | | | | | | |
| 6 | 03/08/84 | 01 | :20 | | | | | | |
| 7 | 04/23/84 | 01 | :30 | | | | | | |
| 8 | 05/02/84 | 01 | :20 | | | | | | |
| 9 | 05/29/84 | 01 | :20 | | | | | | |
| 10 | 07/31/84 | 06 | :20 | | | | | | |



| | | | | | | |
|--|-----------------|-------------|---|-------------------------|-------------|-------------|
| ADDRESS OF JOB | | BLOCK/LOT | APPLICATION NO. | | | |
| 1201 MASON | | 37 | 8503477 | | | |
| OWNER NAME | | | TELEPHONE | | | |
| PUBLIC UTILITIES COM. | | | 558-2598 | | | |
| ESTIMATED COST | FILE DATE | DISPOSITION | DISPOSITION DATE | PERMIT NO. | EXPIRE DATE | |
| \$80,000 | 4/26/83 | ISSUED | 05/24/83 | 501261 | 08/22/83 | |
| FORM CONST. TYPE | OCCUPANCY CODES | | PLANS | STORIES | UNITS | DISTRICT |
| 3 | B-3 F-2 G | | 2 | | | BID-INSP 02 |
| CONTACT NAME | | | TELEPHONE | | | |
| TUTOR SALIBA, INC. | | | | | | |
| STANDARD DESCRIPTION-BLDG. USE | | | OTHER DESCRIPTION | | | |
| MUNI CARBARN | | | <i>Structural Shoring on Arch way</i> <i>(see map)</i> <i>on Water St</i> | | | |
| SPECIAL INSPECTIONS? | NO | FIRE ZONE | | | | |
| SPECIAL USE DISTRICT | | TIDF | NO | | | |
| | | PENALTY | NO | COMPLIANCE WITH REPORTS | | |
| NOTES | | | | | | |
| PERMIT INSPECTION RECORD DEPARTMENT OF PUBLIC WORKS CITY AND COUNTY OF SAN FRANCISCO BUILDING INSPECTION JOB CARD | | | | | | |

| DATE | BUILDING INSPECTORS JOB RECORD |
|----------|---|
| 1 1 | 8303477 |
| 6/27/83 | Connecting Steel between |
| 1 1 | The Books |
| 7/16/83 | work in progress. |
| 9/8/83 | Conf with Eng |
| 11/15/83 | Hold for letter from Eng |
| 12/13/83 | Job Complete allow to Eng |
| 2/12/84 | 90% Complete |
| 3/8/84 | Conf with Project man on |
| 1 1 | S.P. |
| 5/22/84 | OK TO FINAL |
| 1 1 | |
| 5/29/84 | Hold for FINAL Report |
| 1 1 | |
| 1 1 | |
| 1 1 | |
| 1 1 | |
| 1 1 | |
| 1 1 | |
| 1 1 | |
| 1 1 | |
| 7/3/84 | (WORK COMPLETED) FINAL CERTIFICATE POSTED |
| APP. NO. | <i>James McKeilly</i> BUILDING INSPECTOR |

OFFICIAL COPY



| APPL:8303477 STN/SUB: BID-INSP/02 DISP:CO INSP HRS: 3:35 | | | | | | | | | |
|--|----------|------|-------|-----|-----|----------|------|-------|-----|
| NBR | INSPDATE | TYPE | HOURS | SUB | NBR | INSPDATE | TYPE | HOURS | SUB |
| 1 | 06/27/83 | 03 | :20 | | | | | | |
| 2 | 07/26/83 | 01 | :30 | 13 | | | | | |
| 3 | 09/08/83 | 01 | :30 | 01 | | | | | |
| 4 | 12/13/83 | 01 | :30 | | | | | | |
| 5 | 02/21/84 | 01 | :20 | | | | | | |
| 6 | 03/08/84 | 01 | :30 | | | | | | |
| 7 | 05/02/84 | 01 | :20 | | | | | | |
| 8 | 05/29/84 | 01 | :20 | | | | | | |
| 9 | 07/31/84 | 06 | :15 | | | | | | |

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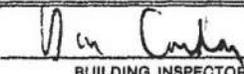
| | | | | | | |
|---|-----------|-------------------------|--------------------------------|-----------|----------------|-------------|
| 1201 | MASON | ADDRESS OF JOB | ST | BLOCK/LOT | APPLICATION NO | 8401359 |
| CCSF-PUBLIC UTILITIES COMM. | | | | | OWNER NAME | TELEPHONE |
| | | | | | 558-5128 | |
| ESTIMATED COST | FILE DATE | DISPOSITION | DISPOSITION DATE | PERMIT NO | EXPIRE DATE | |
| \$40,000 | 2/06/84 | ISSUED | 03/05/84 | 512214 | 09/05/85 | |
| FORM CONST TYPE | A-3 | OCCUPANCY CODES | B-2 B-4 | PLANS | STORIES | UNITS |
| 3 3 | | | | 2 | 2 | |
| TUTOR-SALIBA, INC. | | | | | CONTACT NAME | DISTRICT |
| | | | | | | BID-INSP 02 |
| STANDARD DESCRIPTION/BLDG USE | | | OTHER DESCRIPTION | | | |
| OTHER WAREHOUSE | | | FIRE PROTECTION SPRINKLER SYST | | | |
| NO | | | EM | | | |
| SPECIAL INSPECTIONS? | FIRE ZONE | NO | | | | |
| SPECIAL USE DISTRICT | TIDF | NO | | | | |
| | PENALTY | COMPLIANCE WITH REPORTS | | | | |
| NOTES | | | | | | |
| <p>PERMIT INSPECTION RECORD DEPARTMENT OF PUBLIC WORKS CITY AND COUNTY OF SAN FRANCISCO BUILDING INSPECTION JOB CARD</p> | | | | | | |

| DATE | BUILDING INSPECTORS JOB RECORD |
|----------|--|
| 1 / 1 | 8401359 |
| 1 / 1 | Insulating Heads. |
| 1 / 1 | |
| 5/1/84 | 90% Complete |
| 1 / 1 | |
| 5/29/84 | Hold for PERM |
| 8/30/84 | Question on FP approval |
| 9/11/84 | Letter from Eng 04 |
| 1 / 1 | |
| 1 / 1 | |
| 1 / 1 | |
| 1 / 1 | |
| 1 / 1 | |
| 1 / 1 | |
| 1 / 1 | |
| 1 / 1 | |
| 1 / 1 | |
| 1 / 1 | |
| 1 / 1 | |
| 10/22/84 | WORK COMPLETED FINAL CERTIFICATE POSTED |
| APP NO | <i>Faustino O'Reilly</i> BUILDING INSPECTOR |



| | | | |
|---|-----------------|---|------------------|
| ADDRESS OF JOB | | BLOCK/LOT | APPLICATION NO. |
| 1201 MASON ST | | | 8611304 |
| OWNER NAME | | | TELEPHONE |
| CITY & COUNTY OF SAN FRANCISCO | | | (408)436-8888 |
| ESTIMATED COST | FILE DATE | DISPOSITION | DISPOSITION DATE |
| \$54,438 | 9/15/86 | ISSUED | 10/02/86 |
| PERMIT NO | EXPIRE DATE | | |
| 555259 | 10/02/87 | | |
| FORM CONST TYPE | OCCUPANCY CODES | PLANS | STORIES |
| 3 3 | H-4 | 2 | 3 |
| CONTACT NAME | | DISTRICT | |
| STOP-FIRE INC. | | BID-INSP 10 | |
| STANDARD DESCRIPTION/BLDG USE | | OTHER DESCRIPTION | |
| AUTO REPAIRS | | INSTALL FIRE DETECTION, SUPPRESSION SYSTEM | |
| SPECIAL INSPECTIONS? | NO | FIRE ZONE | |
| SPECIAL USE DISTRICT | | TIDF | NO |
| | | PENALTY | NO |
| NOTES | | COMPLIANCE WITH REPORTS | |
| DAVE SUN - 404 Ex. 310 9003-15 CYN | | PERMIT INSPECTION RECORD DEPARTMENT OF PUBLIC WORKS CITY AND COUNTY OF SAN FRANCISCO BUILDING INSPECTION JOB CARD HALON SYSTEM IN CONTROL AND TRANSFORMER ROOM | |



| DATE | BUILDING INSPECTORS JOB RECORD |
|--------------------|--|
| 12/1/87 | WORK STARTED - PRIOR TO |
| 1/2/87 | WORK DONE - NEGOT FF |
| / / | AND ELECT. CLEARANCE |
| / / | |
| / / | |
| / / | |
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| 1/7/87 | WORK COMPLETED - FINAL CERTIFICATE POSTED |
| APP NO. 0611204 |  BUILDING INSPECTOR |

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| | | | |
|--------------------------------|-----------------|---------------------------------------|---|
| ADDRESS OF JOB | | BLOCK/LOT | APPLICATION NO. |
| 1201 | MASON | ST | 0190 /005 9200481 |
| OWNER NAME | | | TELEPHONE |
| CITY & COUNTY OF SF | | | 923-6380 |
| ESTIMATED COST | FILE DATE | DISPOSITION | DISPOSITION DATE PERMIT NO. EXPIRE DATE |
| \$150,000 | 1/10/92 | CANCELLED | 06/29/93 |
| FORM CONST. TYPE | OCCUPANCY CODES | PLANS | STORIES UNITS DISTRICT |
| 3 2 | H-4 | 2 | 3 BID-INSP 15 |
| CONTACT NAME | | | TELEPHONE |
| C&C OF SF | | | 923-6380 |
| STANDARD DESCRIPTION/BLDG. USE | | OTHER DESCRIPTION | |
| MUNI CARBARN | | CITY JOB/ADDITION OF MEZZNINE OFFICES | |
| SPECIAL INSPECTIONS? | YES | FIRE ZONE | |
| SPECIAL USE DISTRICT | | TIDF | NO |
| | | PENALTY | NO |
| | | | COMPLIANCE WITH REPORTS |

NOTES:

PERMIT INSPECTION RECORD
 DEPARTMENT OF PUBLIC WORKS
 CITY AND COUNTY OF SAN FRANCISCO
 BUILDING INSPECTION JOB CARD

9003-15

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| | | | |
|-----------------------|---|-----------------|---|
| ADDRESS OF JOB | | BLOCK/LOT | APPLICATION NO. |
| 1201 | MASON ST | 0190/005 | 201507313054 |
| OWNER NAME | | | TELEPHONE |
| SMTA CITY PROPERTY | | | |
| ESTIMATED COST | FILE DATE | DISPOSITION | DISPOSITION DATE PERMIT NO. EXPIRATION DATE |
| \$20,000 | 07/31/15 | REINSTAT | 08/19/15 201507313054 07/30/16 |
| FORM | CONST. TYPE | OCCUPANCY CODES | PLANS STORIES UNITS DISTRICT |
| 8 | 1 | B.S-1 | 2 2 0 15 BID-INSP |
| CONTACT NAME | | | TELEPHONE |
| CHAMPION TELECOM INC | | | 5102268525 |
| DESCRIPTION BLDG. USE | PERMIT DESCRIPTION | | |
| MUNI CARBARN | SFMTA RADIO UPGRADE PROJECT INSTALL DIS SERVER, INSTALL CABLES, COAX, HYBERFLEX, FIBER OPTIC DC IN CONDUITS | | |
| SPECIAL INSPECTIONS? | NO | FIRE ZONE | NO |
| SPECIAL USE DISTRICT | | TIDF | NO |
| | | PENALTY | NO |
| | | | COMPLIANCE WITH REPORTS |

NOTES:

106
 DM (925) 639-8835
 (510) 676-7094

9003-15

PERMIT INSPECTION RECORD
 DEPARTMENT OF BUILDING INSPECTION
 CITY AND COUNTY OF SAN FRANCISCO
 BUILDING INSPECTION JOB CARD



If the image of this document appears less sharp than this notice, it is due to the quality of the original.

PERMIT NO. **E 047698**
APPLICATION/PERMIT FOR ELECTRICAL WIRING and/or FIXTURES
SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS
 BUREAU OF BUILDING INSPECTION - ELECTRICAL DIVISION - 558-6030

PERMIT NO. **E 047698**

THIS FORM MUST BE FILED IN QUADRUPPLICATE BEFORE DOING WORK DESCRIBED BELOW. PRINT - USE BALLPOINT PEN OR TYPEWRITER.

JOB ADDRESS OCCUPIED AS ROOM OR APT. NO.
1201 MASON

OWNER TENANT TELEPHONE
S.F. MUNI - Cable Car BARN AND MUSEUM

INSTALLATION BY TELEPHONE
CALIF FIRE SECURITY 648-3340

ADDRESS REQUESTED INSPECTION DATE
1334 POTRERO

CITY
S.F. CA 94110

VALD STATE CONTRACTORS LIC. NO. AND CLASS EXPIRATION DATE SIGNER
422195 C-10 5/90

REC'D DEPT. OF PUBLIC WORKS
 CENTRAL PERMIT BUREAU
 SAN FRANCISCO

AUG 1 1988

ISSUANCE DOES NOT
 CONSTITUTE A CHANGE

FINAL COMPLETION/PAYMENT OF FEES
 AUG 3 1 1988

| OUTLETS | | | SERVICES | | | SPECIAL EQUIPMENT | | | SPECIAL EQUIPMENT | | | FEES | | | | |
|---------|--------|----------|----------|-------------|------------|-------------------|--------------------|----|-------------------|-----|-----------|------|----|------|----------------|--------------|
| Light | Switch | Plug Box | No. | Switch Size | Conductors | No. | EQUIPMENT | EW | HP | No. | EQUIPMENT | EW | HP | TYPE | AMOUNT | |
| | | | | | | | WORK-UP | | | | | | | | INSP. FEE | |
| | | | | | | | W.F. TENDER | | | | | | | | SURVEY | |
| | | | | | | | | | | | | | | | TEMP. WIRING | |
| | | | | | | | | | | | | | | | RE-INSP. FEE | |
| | | | | | | | | | | | | | | | PENALTY FEE | |
| | | | | | | | | | | | | | | | TOTAL FEES | |
| | | | | | | | | | | | | | | | PAID AT FILING | 21.50 |
| | | | | | | | | | | | | | | | BALANCE DUE | 0 |
| | | | | | | | | | | | | | | | OVER-PAID | |

VOID WITHOUT CLAUSE: The Permittee(s) by acceptance of this permit, agrees(s) to indemnify and hold harmless the City and County of San Francisco from and against any and all claims, demands and actions for damages resulting from operations under this permit, regardless of possible negligence of the City and County of San Francisco.

In conformity with the provisions of Section 2000 of the Labor Code of the State of California, the applicant shall issue on file, or file with the Central Permit Bureau, either Certificate (I) or (II) or (III) designated below or shall indicate item (IV) or (V) or (VI) below, whichever is applicable. If however, item (IV) is checked then item (V) shall be checked as well, mark the appropriate method of acceptance below.

I Certificate of Consent to Self-Insure issued by the Director of Industrial Buildings.

II Certificate of Workman's Compensation Insurance issued by an admitted insurer.

III An order copy or duplicate of (I) certified by the Director or (II) certified by the insurer.

IV The cost of the work to be performed is \$100 or less.

I certify that in the performance of the work for which this Permit is issued, I shall not employ any person in any manner to be licensed subject to the workman's compensation laws of California. Further, I understand that I understand, in the event that I should become subject to the workman's compensation provisions of the Labor Code of California and fail to comply therewith with the provisions of Section 2000 of the Labor Code, that the Permit herein applied for shall be deemed revoked.

I certify on the owner (or the agent of the owner) that in the performance of the work for which this Permit is issued, I will employ a contractor who complies with the workman's compensation laws of California and who has on file, or prior to the commencement of any work and file, with the Central Permit Bureau evidence that employer's responsibility for insurance is satisfied.

[Signature] 8/1/88



If the image of this document appears less sharp than this notice, it is due to the quality of the original.

PERMIT NO. **E 052079** APPLICATION/PERMIT FOR ELECTRICAL WIRING ^{0%} FIXTURES
SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS
 BUREAU OF BUILDING INSPECTION — ELECTRICAL DIVISION — 558-6030

PERMIT NO. **E 052079**

THIS FORM MUST BE FILED IN QUADRUPPLICATE BEFORE DOING WORK DESCRIBED BELOW. PRINT — USE BALLPOINT PEN OR TYPEWRITER.

| | | |
|--|---|-------------------------------------|
| JOB ADDRESS 1201 Mason Street | OCCUPIED AS Cable Car Barn | ROOM OR APT. NO. |
| OWNER City & County of San Francisco, Public Utilities Commission | TENANT City & County of San Francisco, Public Utilities Commission | TELEPHONE 923-6172 |
| INSTALLATION BY Fitzgerald Electric Inc. | TELEPHONE 285-1370 | REQUESTED INSPECTION DATE |
| ADDRESS 357 De Haro Street | CITY San Francisco, CA | ZIP 94107 |
| VALID STATE CONTRACTORS LIC. NO. AND CLASS 510719 C-10 | EXPIRATION DATE 5/89 | SIGNED <i>[Signature]</i> 137941 |

REC'D 052079
 CENTRAL PERMIT BUREAU
 SAN FRANCISCO
 NOV 17 1989
 ISSUANCE DOES NOT
 CONSTITUTE A CHANGE
 FINAL COMPLETION/PAYMENT OF FEES
 AUG 23 1989

| OUTLETS | | | SERVICES | | | SPECIAL EQUIPMENT | | | SPECIAL EQUIPMENT | | | FEES | | | |
|---------|--------|------|----------|-------------|-------------|-------------------|--------------------------|----|-------------------|-----|-----------|------|----|----------------|----------------|
| Light | Switch | Plug | No. | Switch Size | Conduc-tion | No. | EQUIPMENT | KW | HP | No. | EQUIPMENT | KW | HP | TYPE | AMOUNT |
| | | | | | | | Reprogramming Controller | | | | | | | INSP. FEE | |
| | | | | | | | | | | | | | | SURVEY | |
| | | | | | | | | | | | | | | TEMP. WIRING | |
| | | | | | | | | | | | | | | RE-INSP. FEE | |
| | | | | | | | | | | | | | | PENALTY FEE | |
| | | | | | | | | | | | | | | TOTAL FEES | <i>initial</i> |
| | | | | | | | | | | | | | | PAID AT FILING | |
| | | | | | | | | | | | | | | BALANCE DUE | <i>0</i> |
| | | | | | | | | | | | | | | OVER-PAID | |

Cancelled

NON-RESIDENT CLASS: The Permittee(s) by acceptance of this permit, agree(s) to indemnify and hold harmless the City and County of San Francisco from and against any and all claims, demands, suits, damages, losses, expenses, including reasonable attorneys' fees, resulting from any negligence of the City and County of San Francisco.

In conformity with the provisions of Section 2802 of the Labor Code of the State of California, the applicant shall have on file, or file with the Central Bureau, either Certificate (I) or (II) or (III) designated below or shall indicate item (IV) or (V) as follows, whichever is applicable. If however, item (VI) is checked then item (V) may be omitted as well as the appropriate method of acquisition below.

() I Certificate of Consent to Self-Insure issued by the Director of Industrial Relations.
 () II Certificate of Workmen's Compensation Insurance issued by an admitted insurer.
 () III An oath copy or diploma of (I) certified by the Director or (II) certified by the insurer.
 () IV The cost of the work to be performed is \$100 or less.

I certify that in the performance of the work for which this Permit is issued, I shall not employ any person as my helper or as an apprentice, subject to the employer's responsibility hereof in California, I further acknowledge that I understand, in the event that I should become subject to the workman's compensation provisions of the Labor Code of California and fail to comply therewith with the provisions of Section 2802 of the Labor Code, that the Permit herein applied for shall be deemed voided.

I certify on the penalty for the truth of the work for which this Permit is issued, I will employ a competent person to do the workman's compensation laws of California and who has on file, or prior to the commencement of the work, will file, with the Central Bureau evidence that workman's compensation insurance is in effect.

[Signature]

OFFICIAL COPY

SAN FRANCISCO
City and County of San Francisco
Department of Building Inspection



London N. Breed, Mayor
Patrick O'Riordan, Interim Director
ELECTRICAL PERMIT

PERMIT# **E201504288147**
Permit Issued date: **04/28/2015 12:28:58 PM**

E201504288147

1201 MASON ST

CHAMPION TELECOM INC

Floor/Suite:

Printed on: 03/30/2021 08:31:41 AM

Job Address 1201 MASON ST **Block/Lot/Structure Num** 0190/005/0 **Unit** **District** 11
Occupancy Commercial **Floor/Suite** **Valuation** \$24,000.00

Owner Name CITY PROPERTY **Phone** **Phone2** **Homeowner permit approved by**

Contractor Company Name CHAMPION TELECOM INC **License** 980705 **Class** C10 B1 **License Exp Date** 31-JAN-17 **Business Lic#** 0463858
Address 401 WHITNEY PLACE **City** FREMONT **State** CA **Zip Code** 94539-0000 **Office Phone#** (510)226-8525 **Mobile Phone#** (408)680-4740

Applicant/Occupant Name **Phone**
() -

EID Use Only: **Building Appln. No:** **Plumbing permit No:**

APPLICANT'S DESCRIPTION OF WORK:

INSTALL (N) CONTROL STATION FOR MICROWAVE COMMUNICATIONS (RADIO) PROVIDE CABLING FROM CENTRAL STATION (ANTENNA'S) TO RADIO ON 1ST FLOOR. INSTALL ANTENNAE BALLAST MOUNTS ON ROOFTOP

INSPECTOR'S COMMENT:

Fees

| Fee Type | Date Paid | Receipt | Amount | Fee Type | Date Paid | Receipt | Amount |
|------------------|---------------|-------------------|-----------------|-------------------|-----------------|--------------------|---------------|
| NON_RES_OUTL | 28-APR-15 | 226820 | \$669.00 | TECH_SRCH | 28-APR-15 | 226820 | \$13.38 |
| BLDG_REV_FEE | 28-APR-15 | 226820 | \$1.00 | | | | |
| Surcharge | \$0.00 | Total Fees | \$683.38 | Total Paid | \$683.38 | Balance due | \$0.00 |

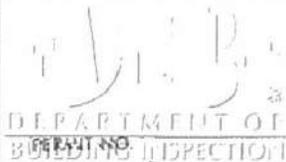
Inspection Activity Description

| Activity Date | Inspector | Code | Activity Code Description | Inspection Record |
|---------------|---------------|------|-------------------------------|---|
| 03/04/2016 | Osha Ashworth | 301 | COMPLETE | APPROVED INSTALL (N) CONTROL STATION FOR MICROWAVE COMMUNICATIONS (RADIO) PROVIDE CABLING FROM CENTRAL STATION (ANTENNA'S) TO RADIO ON 1ST FLOOR. INSTALL ANTENNAE BALLAST MOUNTS ON ROOFTOP BA # 201507313054 |
| 02/24/2016 | Mario Ortiz | 108 | INSPECTION CANCELED - ENROUTE | Inspection canceled in the a.m. |

Electrical Inspection Division
49 South Van Ness Ave, Suite 400 San Francisco, CA 94103
Office (628) 652-3450 - www.sfgov.org/dbi

OFFICIAL COPY

SAN FRANCISCO



DEPARTMENT OF PUBLIC WORKS

BUREAU OF BUILDING INSPECTION

2086 220698

PERMIT NO.

P

APPLICATION/PERMIT TO INSTALL PLUMBING, GAS, WATER

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF BUILDING INSPECTION
PLUMBING DIVISION
857-6407

JOB ADDRESS 1201 Mason Street

BLDG. USE Cable Car Museum NEW ALT # STORES 4

OWNER OF BLDG. City & County of San Francisco PHONE _____

ADDRESS _____

VALID STATE CONTRACTOR'S
LICENSE # 342318
CLASS C-16 EXP. DATE 6-30-86

AMENDMENT TO: _____

NAME Robles Fire Protection, Inc.

ADDRESS 250-B Napoleon Street

San Francisco Ca. STATE 94124 ZIP CODE

D. LaPine
SIGNATURE

DATE: 03/05/86

REGISTERED
PLUMBER

(415) 285-0880
TEL. NO.

PLEASE TYPE
OR PRINT
LEGIBLY

PRESS HARD

THE ADDRESS
PRINTED AT
LEFT MUST
SHOW CLEARLY
THROUGH A
WINDOW
ENVELOPE

VALID FOR ISSUANCE:
DATE MAR 10 1986

CHIEF PLUMBING INSPECTOR

* NOT VALID FOR PERMIT IF ANY EMPLOYEE DESCENDS INTO EXCAVATION DEEPER THAN 5'

| FEATURES | NO. AT PLUMBING | SHORTS | RATE | "B" GAS | NO. AT PLUMBING | FEE | SHORTS | SWEAT FEE | TOTAL FEES | | |
|-----------------------|-----------------|--------|------|---------------------------------------|-----------------|------|--------|-----------|--------------------------|-----|--------|
| | | | | | | | | | TYPE | NO. | AMOUNT |
| TOILETS | | | | GAS PERMIT FEE | | | | | PERMIT | | |
| WASH BASINS | | | | 1ST GAS OUTLET BA. LINE | | | | | RE INSPECTION | | |
| BATH TUBS | | | | ADD'L GAS OUTLETS | | | | | PLUMBING 'A' | | |
| SHOWERS | | | | WATER HEATER | | | | | GAS 'T' | | |
| SINKS | | | | WATER AB. FEEDAGE | | | | | WATER 'T' | 2 | 7.00 |
| WASH TUBS | | | | MISC. GAS APPLANCE | | | | | SEWER 'T' | | |
| DRAINS (ALL ENDS) | | | | GAS RANGE | | | | | PERMIT | | |
| LEAKERS (ALL ENDS) | | | | EXTRA CHARGE FEE | | | | | TOTAL | | 7.00 |
| AUTO DISH WASHER | | | | RE INSPECTION | | | | | PD AT PL | | |
| GARAGE DISPOSAL | | | | TOTAL GAS FEE | | | | | EXTRA CHRG | | |
| AUTO CLOTHES WASHER | | | | | | | | | EX. CHG. FEE | | |
| MISC. FEATURES | | | | | | | | | BAL. DUE | | |
| DRINKING FOUNTAIN | | | | | | | | | OVERPAID | | |
| VENUELS | | | | "C" WATER | | | | | AMOUNT RECEIVED AT PLUMB | 5 | 7.00 |
| AUTO SINK INSPECTOR | | | | WATER LINES 1/4" OUTLETS EACH SERVICE | | | | | VALID FOR ISSUANCE: | | |
| GREASE INTERCEPTOR | | | | ADD'L WATER OUTLETS | | | | | APPROVED | | |
| EXTRA CHARGE FEE | | | | STAINLESS STEEL | 2 | 7.00 | | | DATE | | |
| TOTAL PLUMBING FEES @ | | | | FRIGATION | | | | | CHIEF PLUMBING INSPECTOR | | |
| PERMIT FEE | | | | SOLAR PANELS | | | | | | | |
| TOTAL PLUMBING FEE | | | | EXTRA CHARGE FEE | | | | | | | |
| | | | | RE INSPECTION | | | | | | | |
| | | | | TOTAL WATER FEE | | | | | | | |
| | | | | | | | | | | | |
| | | | | "D" SEWER | | | | | | | |
| | | | | SEWER REPAIR OR REPLACEMENT | | | | | | | |
| | | | | STREET SIDE SEWER INSPECTION | | | | | | | |

PLEASE MAKE CHECK PAYABLE TO:
DEPARTMENT OF PUBLIC WORKS
CENTRAL PERMIT BUREAU
450 AK ALISTER STREET
ROOM 124
SAN FRANCISCO, CA 94102

NOTE: SEE BACK OF GREEN COPY FOR CERTIFICATION OF COMPLIANCE WITH CALIF. STATE LABOR CODE SECTION 3600.

INSPECTOR'S REPORT

NOT VALID UNLESS DATED AND SIGNED BY CHIEF PLUMBING INSPECTOR

If the image of this document appears less sharp than this notice, it is due to the quality of the original.

OFFICIAL COPY



PERMIT NO. 01988U 2P 249581

CITY AND COUNTY OF SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS BUREAU OF BUILDING INSPECTION PLUMBING DIVISION 558-6054

PERMIT NO. P249581 APPLICATION/PERMIT TO INSTALL PLUMBING, GAS, WATER

JOB ADDRESS 1201 HANSON @ WASHINGTON S.F. 94108 BLDG. USE CABLE CAR BARN NEW [] ALT [X] B STORES 2 OWNER OF BLDG MUNI ADDRESS 949 PRESIDIO SF.

VALID STATE CONTRACTOR S LICENSE # 501644 CLASS C-16 EXP. DATE 1-30-89

NAME TOWERS FIRE SAFETY SYSTEMS INC. 8-10-88 DATE 8-10-88 ADDRESS 30A BROADWAY SAN FRANCISCO CA 94133 CITY STATE ZIP CODE

SIGNATURE [Signature] DATE 8-10-88 REQUESTED POP. DATE Y21-0486 TEL. NO.

AMENDMENT TO:

PLEASE TYPE OR PRINT LEGIBLY

PRESS HARD

THE ADDRESS PRINTED AT LEFT MUST SHOW CLEARLY THROUGH A WINDOW ENVELOPE

ISSUANCE DOES CONSTITUTE A CH. VALID FOR ISSUANCE OF USE

AUG 10 1988

[Signature]

* NOT VALID FOR PERMIT IF ANY EMPLOYEE DESCENDS INTO EXCAVATION DEEPER THAN 5'

Table with columns: FEATURES, NO. AT RUND, SHORTS, RATE, 'B' GAS, NO. AT PLUMB, FEE, SHORTS, SHORTS FEE, TOTAL FEES. Rows include TOILETS, WASH BASINS, BATH TUBS, SHOWERS, SINKS, WASH TRAYS, DRAINS, LEADERS, AUTO. DGM WASHER, GARAGE DISPOSAL, AUTO. CLOTHES WASHER, MISC. FIXTURES, DRINKING FOUNTAIN, URINALS, AUTO. SUMP PUMP, GREASE INTERCEPTOR, EXTRA CHARGE FEE, TOTAL PLUMBING FEES, PERMIT FEE, TOTAL PLUMBING FEE.

PLEASE MAKE CHECK PAYABLE TO: DEPARTMENT OF PUBLIC WORKS CENTRAL PERMIT BUREAU 450 Mc ALLISTER STREET ROOM 104 SAN FRANCISCO, CA 94102-4524

NOTE: SEE BACK OF GREEN COPY FOR CERTIFICATION OF COMPLIANCE WITH CALIF. STATE LABOR CODE SECTION 3800.

INSPECTOR'S REPORT

AMOUNT RECEIVED AT FILING 21.38 VALID FOR ISSUANCE: 10 1588 NOT VALID UNLESS DATED AND SIGNED BY CHIEF PLUMBING INSPECTOR

If the image of this document appears less sharp than this notice, it is due to the quality of the original.



INSPECTOR'S JOB RECORD

| DATE | RSP INITIALS | REMARKS |
|----------|--------------|------------------------|
| 12/9/88 | JSP | no call for inspection |
| 12/10/88 | | |
| 12/10/88 | | |
| 12/10/88 | | |
| 12/10/88 | | |
| 12/10/88 | | |
| 12/10/88 | | |
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| 12/10/88 | | |

548281

548281

If the image of this document appears less sharp than this notice, it is due to the quality of the original.

OFFICIAL COPY

SAN FRANCISCO



PLUMBING PERMIT
CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF BUILDING INSPECTION

PERMIT # PP20150325104

DATE AND TIME ISSUED: 03/25/2015 09:34:24 AM

Call between 8:00 am and 3:00 pm to schedule an inspection - (415) 558-6570
24-hour voice inspection scheduling - (415) 575-6955

Job Location 1201 MASON RENEWAL ST AMENDMENT PID PERMIT #
Unit BLK/LOT 0190 / 005
Unit BLK/LOT District 2

OWNER: BLDG APPL# 201503251820 EID PMT#

Owner Name CITY PROPERTY Owner/Contact CITY PROPERTY (CABLE CAR MUSEU
Owner Address 1201 MASON ST SAN FRANCISCO CA Owner Phone 4156431767

I hereby affirm that I am licensed under provisions of Chapter 9 (Commencing with Sec. 7000) of Division 3 of the Business and Professions code, and my license is in full force and effect.

CONTRACTOR: HOMEOWNER PERMIT: Approving Inspector:
Company Name License # Class Expiration BTRC #
INTERNATIONAL FIRE INC 965370 C10,C16 09/30/2015 0926497
Address City State Zip
765 PENNSYLVANIA AV SAN FRANCISCO CA 94107-0000
Phone 4156431767

DESCRIPTION OF WORK COVERED BY THIS PERMIT:
TO INSTALL 2 FIRE SPRINKLER HEADS IN T.I. AREA.

| FEES: | MAX INSPECTIONS AVAILABLE | 2 | VALUATION | 0.00 | BLDG STDS ADMIN FUND | 0.00 |
|-----------------------------------|---------------------------|--------------|-----------|-------------------------------|----------------------|--------------------------|
| NUMBER OF ADDITIONAL INSPECTIONS | 0 @ | 0.00 / 1 EA. | 0.00 | SURVEY: | | 0.00 |
| NUMBER OF PLAN REVIEW HOURS: | 0 @ | 0.00 / 1 EA. | 0.00 | MISCELLANEOUS: | | 0.00 |
| NUMBER OF ADMIN HOURS: | 0 @ | 0.00 / 1 EA. | 0.00 | FIRE SPRINKLER: | | 0.00 |
| SINGLE RESIDENTIAL UNIT: | | | 0.00 | FIRE SPRINKLER (NEW/REMODEL): | 1 @ 232.00/ 1 EA. | 232.00 |
| PLUMBING INSTALLATION (WITHOUT) | 0 | UNITS | 0.00 | RESTAURANT (NEW/REMODEL): | 0 OUTLETS | 0.00 |
| PLUMBING INSTALLATION (WITH): | 0 | UNITS | 0.00 | Web fee: 0.00 | Penalty 0.00 | Tech surcharge (2%) 4.64 |
| NEW BOILER INSTALLATION: | 0 @ | 0.00 / 1 EA. | 0.00 | | | |
| OFFICE, MERC AND RETAIL BUILDING: | 0 @ | 0.00 / 1 EA. | 0.00 | | | |
| | | | | TOTAL PERMIT FEE: | | 236.64 |

* NOT VALID FOR PERMIT IF ANY EMPLOYEE DESCENDS INTO EXCAVATION DEEPER THAN 5'
Effective 8/7/2009 - Permit shall expire 1 year from date of issuance.

DO NOT WRITE BELOW THIS LINE - FOR OFFICIAL USE ONLY

| Date | Initials | Remarks |
|------|----------|--|
| | | EXPIRED Date: 3/20/2016 By: Auto expire Andrew Palmigiano, PID-DB JUL 10 2018 |

NOTICE TO APPLICANT HOLD HARMLESS CLAUSE: The permittee, by acceptance of the permit, agrees to indemnify and hold harmless the City and County of San Francisco from and against any and all claims, demands and actions for damages resulting from operations under this permit, regardless of negligence of the City and County of San Francisco, and to assume the defense of the City and County of San Francisco against all such claims, demands or actions.
In conformity with the provisions of Section 3800 of the Labor Code of the State of California, the applicant shall have coverage under (I), or (II) designated below or shall indicate item (III), or (IV), or (V), whichever is applicable. If however item (V) is checked item (IV) must be checked as well. Mark the appropriate method of compliance below:

- I. I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided by Section 3700 of the Labor Code for the performance of the work for which this permit is issued.
- X II. I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:
Carrier: MARKEL INSURANCE COMPANY Policy Number: MCW0012319
- III. The cost of the work to be done is \$100 or less.
- IV. I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California. I further acknowledge that I understand that in the event that I should become subject to the workers' compensation provisions of the Labor Code of California and fail to comply forthwith with the provisions of Section 3800 of the Labor Code, that the permit herein applied for shall be deemed revoked.
- V. I certify as the owner (or the agent for the owner) that in the performance of the work for which this permit is issued, I will employ a contractor who complies with the workers' compensation laws of California and who, prior to the commencement of any work, will file a completed copy of this form with the Central Permit Bureau.

PLEASE MAKE CHECK PAYABLE TO: DEPARTMENT OF BUILDING INSPECTION 1660 MISSION STREET SAN FRANCISCO, CA 94103

Plumbing Inspector's signatures:
Rough In: _____ Date: _____
Final: _____ Date: _____

Valid For Issuance: Approved Date: 03/25/2015 09:34:24 AM

Chief Plumbing Inspector: *Steve Panelli*

INSPECTOR'S RECORD
Issued by: DELFIDEL

1201 MASON ST

OFFICIAL COPY



PLUMBING PERMIT
CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF BUILDING INSPECTION

PERMIT # PP20150325104 EXPIRED

Call between 8:00 am and 3:00 pm to schedule an inspection - (628) 652-3400
24-hour Web inspection scheduling at: https://dbiweb02.sfgov.org/dbi_plumbing/
24-hour voice inspection scheduling - (628) 652-3401

ISSUE TIME: 03/30/2021 08:33:24 AM

1201 MASON ST

| | | | | | | |
|---------------|-------------------------|---------------|---------|-----------|--------------|----------------------------------|
| Job Location | 1201 | MASON | RENEWAL | AMENDMENT | PID PERMIT # | |
| | | | ST | Unit | Unit sfx | BLK/LOT 0190 / 005 |
| | | | | Unit | Unit sfx | BLK/LOT |
| OWNER: | BLDG APPL# 201503251820 | EID PMT# | | | | District 2 |
| Owner Name | CITY PROPERTY | Owner/Contact | | | | CITY PROPERTY (CABLE CAR MUSEUM) |
| Owner Address | 1201 MASON ST | SAN FRANCISCO | | | | CA Owner Phone 4156431767 |

I hereby affirm that I am licensed under provisions of Chapter 9 (Commencing with Sec. 7000) of Division 3 of the Business and Professions code, and my license is in full force and effect.

| | | |
|------------------------|-------------------|----------------------|
| CONTRACTOR: | HOMEOWNER PERMIT: | Approving Inspector: |
| Company Name | License # | Class |
| INTERNATIONAL FIRE INC | 965370 | C10,C16 |
| Address | City | Expiration |
| 765 PENNSYLVANIA AV | SAN FRANCISCO | 09/30/2015 |
| | | State |
| | | CA |
| | | BTRC # |
| | | 0926497 |
| | | Zip |
| | | 94107-0000 |
| | | Phone |
| | | 4156431767 |

DESCRIPTION OF WORK COVERED BY THIS PERMIT:
TO INSTALL 2 FIRE SPRINKLER HEADS IN T.I. AREA.

| | | | | | |
|------------------------------------|------------------------------|-----------|-------------------------------|----------------------|--------------------------|
| FEES: | MAX INSPECTIONS AVAILABLE: 2 | VALUATION | 0.00 | BLDG STDS ADMIN FUND | 0.00 |
| NUMBER OF ADDITIONAL INSPECTIONS : | 0 @ 0.00 / 1 EA. | 0.00 | SURVEY: | | 0.00 |
| NUMBER OF PLAN REVIEW HOURS: | 0 @ 0.00 / 1 EA. | 0.00 | MISCELLANEOUS: | | 0.00 |
| NUMBER OF ADMIN HOURS: | 0 @ 0.00 / 1 EA. | 0.00 | FIRE SPRINKLER: | | 0.00 |
| SINGLE RESIDENTIAL UNIT: | | 0.00 | FIRE SPRINKLER (NEW/REMODEL): | 1 @ 232.00/ 1 EA. | 232.00 |
| PLUMBING INSTALLATION (WITHOUT): | 0 UNITS | 0.00 | RESTAURANT (NEW/REMODEL): | 0 OUTLETS | 0.00 |
| PLUMBING INSTALLATION (WITH): | 0 UNITS | 0.00 | Web fee: 0.00 | Penalty 0.00 | Tech surcharge (2%) 4.64 |
| NEW BOILER INSTALLATION: | 0 @ 0.00 / 1 EA. | 0.00 | | | |
| OFFICE, MERC AND RETAIL BUILDING: | 0 @ 0.00 / 1 EA. | 0.00 | | | |
| | | | TOTAL PERMIT FEE: | | 236.64 |

*** NOT VALID FOR PERMIT IF ANY EMPLOYEE DESCENDS INTO EXCAVATION DEEPER THAN 5' Effective 8/7/2009 - Permit shall expire 1 year from date of issuance.**

DO NOT WRITE BELOW THIS LINE - FOR OFFICIAL USE ONLY

| Date | Initials | Remarks |
|------|----------|---------|
| | | |
| | | |
| | | |
| | | |
| | | |

NOTICE TO APPLICANT HOLD HARMLESS CLAUSE: The permittee(s) by acceptance of the permit, agree(s) to indemnify and hold harmless the City and County of San Francisco from and against any and all claims, demands and actions for damages resulting from operations under this permit, regardless of negligence of the City and County of San Francisco, and to assume the defense of the City and County of San Francisco against all such claims, demands or actions.

In conformity with the provisions of Section 3800 of the Labor Code of the State of California, the applicant shall have coverage under (I), or (II) designated below or shall indicate item (III), or (IV), or (V), whichever is applicable. If however item (V) is checked item (IV) must be checked as well. Mark the appropriate method of compliance below:
I hereby affirm under penalty of perjury one of the following declarations:

- I. I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided by Section 3700 of the Labor Code for the performance of the work for which this permit is issued.
- X II. I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:
Carrier: MARKEL INSURANCE COMPANY Policy Number: MCW0012319
- III. The cost of the work to be done is \$100 or less.
- IV. I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California. I further acknowledge that I understand that in the event that I should become subject to the workers' compensation provisions of the Labor Code of California and fail to comply forthwith with the provisions of Section 3800 of the Labor Code, that the permit herein applied for shall be deemed revoked.
- V. I certify as the owner (or the agent for the owner) that in the performance of the work for which this permit is issued, I will employ a contractor who complies with the workers' compensation laws of California and who, prior to the commencement of any work, will file a completed copy of this form with the Central Permit Bureau.

PLEASE MAKE CHECK PAYABLE TO: DEPARTMENT OF BUILDING INSPECTION 49 SOUTH VAN NESS AVE, SAN FRANCISCO, CA 94103

Plumbing Inspector's signatures:

Rough In: _____
Final: _____

Date: _____
Date: _____

Valid For Issuance: Approved Date: 03/25/2015 09:34:24 AM

Chief Plumbing Inspector: *Steve Panelli*

INSPECTOR'S RECORD
Issued by: DELFIDEL

SAN FRANCISCO

Pier 9, The Embarcadero, Suite 107
San Francisco, California 94111

T: 415.421.1680

F: 415.421.0127

argsf.com

LOS ANGELES

360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

T: 626.583.1401

F: 626.583.1414

arg-la.com

PORTLAND

720 SW Washington Street, Suite 300
Portland, OR 97205

T: 971.256.5324

arg-pnw.com