

Transit in San Francisco A Selected Chronology, 1850-1995

With a Brief Chronology of
U.S. Street Railways in the 19th Century
And a Few Definitions

Robert Callwell
Communications Department
San Francisco Municipal Railway
September 1999

The first edition of this chronology was published in 1987 for the 75th anniversary of the Municipal Railway. For the most part, the chronology attempts to present important moments in San Francisco's public transportation history as seen by people on the street. Unfortunately, that means that there is a great deal of the history that is not discussed with any detail — in particular, the stories of all the men and women who, down through the years, have helped to provide the transit services in the city.

Several people, both within and outside of Muni, have provided information, advice, and encouragement for the chronology project. Thanks are especially due to Audley L. Cole, the late Harre W. Demoro, Emiliano J. Echeverria, Angelo Figone, Nicolas Finck, Philip V. Hoffman, Jaimie Levin, Tom Matoff, Steve Miller, Jeffrey Moreau, Robin Reitzes, Tom Standing, the late Fred A. Stindt, Peter Straus, Annette Williams, and Ted Wurm.

Thanks are also due to the North Baker Research Library of the California Historical Society; the San Francisco African American Historical and Cultural Society; the San Francisco City Hall Law Library; the San Francisco Main Library's Government Documents Department, Newspaper Room, and San Francisco History Room; the San Francisco Maritime National Historic Park's J. Porter Shaw Library; and San Francisco State University's J. Paul Leonard Library.

This is a continuing project of the San Francisco Municipal Railway's Communications Department, and any suggestions for additions or corrections will be greatly appreciated.

"What's your rule? What are you guided by?"... "All — the — traffic — will — bear."
from *The Octopus*,
a novel by Frank Norris,
published in 1901

"It is in reality the people's road, built by the people and with the people's money....Our operation of this road will be closely watched by the whole country. It must prove a success!...We must extend it everywhere possible, until it becomes a great municipal system."

Mayor "Sunny Jim" Rolph,
speaking at Muni's opening-day
ceremony at Geary & Kearny,
December 28, 1912

"The primary object of a private enterprise operating in the transportation field is pecuniary gain, while that of a municipal public utility is to give service."

City Engineer M. M. O'Shaughnessy,
1922

"It would be a mistake just to swallow the Market Street Railway System, hook, bait and sinker, and let the city's future transportation development be determined by what might be characterized as the rights of the old rails that happen to have been laid under the impetus of early competition, without any general plan."

transit consultant Delos F. Wilcox,
1927

"We don't want a 'tourist attraction.' That's phony. The tourists won't be taken in by a make-believe cable car line — and the people of San Francisco will resent having a loved and peculiar characteristic of our city reduced to the status of a billboard. The reason it is famous is because it is genuine."

Friedel Klussmann,
speaking at a San Francisco Public
Utilities Commission public hearing,
January 1954

- May 1850 By this time, a stage line is operating three times a week between San Francisco and San José. The fare was \$32.00 for a nine-hour, one-way trip.
- 1850 Twice-weekly ferry service begins between S.F. and Oakland on Captain Thomas Gray's small steamer "Kangaroo." Although only intended for excursions, it was the first regularly scheduled ferry service on San Francisco Bay. (Travel to many locations around the bay was often easier by water than by land during this period.)
- Spring 1851 The Mission Plank Road, crossing the marsh that lay to the west of Mission Bay, opens for traffic from California & Kearny to Mission Dolores — 25¢ for a horse and rider, \$1.00 for a four-horse team.
- June 1, 1851 The Yellow Line — the first omnibus line — starts service between Kearny & Clay (at Portsmouth Square) and Mission Dolores. The line had 30-minute headways, with a fare of 50¢ Monday through Saturday and \$1.00 on Sunday.
- Later, the company established other routes, and other omnibus companies began service. The Red Line had routes that paralleled the Yellow Line's, and the competition caused fares to fall to 10¢. (During those early years, the planking of streets was more important than the transit service provided by the omnibuses in determining where people chose to live.)
- July 1, 1856 The Consolidation Act takes effect, after being approved by the state legislature that April. Although much amended, it served as the charter for S.F.'s city government for over 40 years.
- The act created San Mateo County and a consolidated City and County of San Francisco out of the old San Francisco County. In an effort to prevent corruption, most of the important powers of the city's government were given to the governor and the state legislature — the members of the police and fire commissions, for instance, were appointed by the governor. (This was not giving power to a group of strangers, since the city was the most populated section of the state and had many representatives in the legislature.)
- The charter was adequate for S.F. into the 1860s, but it became increasingly ineffective for the growing city amid the changing conditions of the last three decades of the century.
- July 4, 1860 The San Francisco Market Street Railroad makes some trial runs with steam dummy service from 3rd & Market Sts., on Market and Valencia

to 16th St. After further testing on July 14th, the rail line began hourly service the next day.

The line was built by Thomas Hayes and his associates after they had obtained a franchise in 1857. Before the tracks could be laid, cuts had to be made in ridges of sand dunes that were up to 60' high, and some of the real estate on the route was in the form of "moveable property," depending on which way the wind was blowing the sand.

The franchise had called for horse- or mule-powered service, but the state legislature granted the company the right to use steam after the fact, as of May 1861, on a conditional basis.

Popular entertainments, including horse racing at the Pioneer Race Course and the attractions at amusement parks such as The Willows and Woodward's Gardens, were major reasons for transit companies' service to the Mission District during this era.

Frank McCoppin was the manager and, for a time, part owner of the Market St. company. An extension of the line on Market from 3rd St. to California St. was especially subject to flooding, and was called "McCoppin's Canal" in the rainy season.

- 1861 A branch of the Market St. line begins operation on Hayes to the Hayes Pavilion at Laguna St. (Steam was operated on Sundays, and horsecars were used on the branch during the rest of the week.) A major purpose of the company was the development of the Hayes Valley tract, owned by Hayes.
- Dec. 22, 1862 The Omnibus Railroad Co., successor company to the Yellow Line, begins horsecar service. The line ran from the foot of 3rd St., at King, on 3rd St., Howard, 2nd St., Market, and Sansome to Jackson, and was soon extended to Powell & Bay Sts. The company also had a line operating from 3rd & Market, on 3rd and Howard Sts., originally to Mission Dolores, but later extended on Howard to 26th St.
- Apr. 17, 1863 Charlotte L. Brown is put off Omnibus RR horsecar No. 11 at Stockton & Jackson Sts. after being told by the conductor that "colored persons were not allowed to ride." She sued the company and was awarded \$500 in damages in 1866.

It was not the only instance in that decade in which there were court decisions upholding the right of black persons to ride on public transportation in the city. For example, the conductor and driver of a horsecar of the North Beach and Mission Railroad (formerly the Red Line) were convicted of assault and battery for forcing William Bowen

off their car. (One of the other passengers testified at the trial that "he would leave the car if the Negro was obliged to.")

Oct. 18, 1863

The San Francisco & San José Railroad begins service.

The railroad ran through the Bernal Cut, which had been excavated for the line. (A widened Bernal Cut is now the roadway for San José Ave. between Randall St. and St. Mary's Ave.) The line continued on the west side of San Bruno Mountain and then on the bay side of the Peninsula to a temporary terminal at Mayfield (now the California Ave. station in Palo Alto), with stagecoaches providing connecting service to San José.

Jan. 16, 1864

With a formal opening, Peninsula railroad service is extended from Mayfield to San José. A one-way trip between S.F. and San José took 3 1/2 hours and cost \$2.50.

Mar. 6, 1867

Horsecars replace steam dummies on Market St., after steam had been banned by the Board of Supervisors. The Peninsula railroad had also operated some passenger service on Market towards downtown from Valencia St., but steam locomotives probably never ran any farther east than 1st St. (Steam dummies operated on Market between Valencia and Castro from 1880 to 1888.)

Feb. 4, 1868

The Peninsula railroad is acquired by the Southern Pacific Railroad Company (SP), a company that had won Congressional approval to construct the western link of a transcontinental railroad across the southern U.S. Along with the Peninsula line came the Market St. transit company, which had been purchased by the Peninsula railroad's owners in 1866 in a foreclosure sale.

Sept. 6, 1869

The first train from the eastern U.S. reaches S.F. Bay, running on the Central Pacific Railroad's line through Altamont Pass and Niles Canyon to a terminal in Alameda. (The Alameda terminal was temporary, and a permanent terminal was established at the foot of 7th St. in Oakland on November 8th.)

The completion of the transcontinental line on May 10th of that year did not bring the era of prosperity to S.F. and the rest of the state that many had expected, and for a variety of reasons, the decade of the '70s was generally one of depressed economic conditions. S.F.'s port, for example, suffered with the completion of the railroad. The West was no longer so isolated from the rest of the country, and the port lost its virtual monopoly on the transportation of people and goods to California.

Sept. 25, 1869 The Central Pacific's "Big Four" (Charles Crocker, Mark Hopkins, Collis P. Huntington, and Leland Stanford) purchase the SP, including the company's Congressionally approved construction rights, the Peninsula railroad, and the Market St. horsecar company. (The Southern Pacific Company became the holding company for all of the railroad empire's operations in February 1885.)

1870 Seven horsecar companies are in operation in S.F., with competing lines often paralleling each other only a block apart. In an attempt to stifle competition, some lines were quite circuitous so that franchise rights could be maintained on as many streets as possible.

That year, the state legislature gave the city the privilege of granting street railway franchises — the bribes necessary to obtain franchises helped to make city office-holding quite lucrative.

Sept. 1, 1873 The Clay Street Hill Railroad starts cable car service on Clay from Leavenworth to Kearny. The line was built by Andrew Smith Hallidie and his associates for an investment estimated at \$85,150. The cars' original speed of 4 mph was later increased to 6 mph.

The franchise had called for operations to begin by August 1st. The line was not ready in time, and the first car was actually operated between Jones and Kearny in the early morning darkness of August 2nd. To make sure his franchise rights were protected, Hallidie always claimed that the testing had occurred on the morning of the 1st. Although there were newspaper accounts of the August 2nd testing, Hallidie's version prevailed, and the truth of the matter was not generally known until many years later.

The line was immediately popular and profitable, and allowed development of an area that had been largely undeveloped, since it had been accessible only to those who could afford private transportation up a hill too steep for horsecar service. (The cable cars made more money on the uphill ride, since potential riders often saved money by walking downhill.)

Mar. 25, 1874 A bill that would have limited drivers' and conductors' working hours to 12 hours a day is vetoed by the governor on the grounds that it would have been a special law aimed at a particular class of workers.

The legislation had been introduced out of sympathy for the S.F. transit workers who had gone out on an unsuccessful strike in January of that year for a reduction of their working hours. At the time, drivers and conductors in S.F. were generally making \$2.50 a day for a 14- to 16-hour day. (Many workers had a work week of at least six days, and the

five-day work week would not become standard until well into the 20th century.)

Sept. 4, 1875 First ferry service from the new ferry terminal on The Embarcadero (then called East St.) between Market and Clay Sts. The Central Pacific had outgrown its Davis St. ferry wharf, and the state created the new terminal for all of the bay ferry services. Prior to this time, Broadway had been the main thoroughfare to the ferries, but Market St. became the city's major street with the opening of the new terminal.

The Market St. company was already providing horsecar service to the foot of Market, but other companies obtained franchises for extensions on that street to the ferries, sharing operating rights on a set of tracks constructed on the outside of the Market St. company's. The other companies could only obtain short extensions on Market, because the Market St. company had the prior franchise, and one transit company was not allowed to operate on the same street as another for more than five consecutive blocks.

1875 Eight railway companies are in operation, with 220 cars, 80 miles of track (measured in single-track mileage), 700 men, and 1,700 horses.

Jan. 27, 1877 The Sutter Street Railroad converts from horsecar to cable operation on Sutter from Market to Larkin.

Later, the company began more cable service, including an extension to Presidio Ave. (then called Central Ave.) in 1879, but it was never able to convert its service on Market between Sutter & Sansome and the ferry terminal from horsecar to cable operation.

Jan. 1, 1878 California cities with populations of over 100,000 have their street railroad fares set at a maximum of 5¢ by the state legislature. (As the legislature was well aware, S.F. was the only city that had that many people.)

The law was passed because of the public's anger when all of the transit companies except the Clay St. Hill line reduced the number of rides for 25¢ from five to four, without prior notice.

Apr. 10, 1878 First day of service on the California Street Cable Railroad (Cal Cable), built by Leland Stanford and his associates, on California between Kearny and Fillmore. The company was forced to pay \$30,000 in patent fees to Hallidie and his partners.

The line was extended to Presidio Ave. the next year and to Market St. in 1890. (Stanford sold his interest in the company in 1884.)

Nov. 6, 1878 The Geary Street, Park & Ocean Railroad (GSP&O) is granted a 25-year franchise for cable service.

The next May, the state's voters approved a new constitution that would take effect in January 1880. Fearing more restrictions under the new constitution, most of the other railway operators obtained franchises good for 50 years, the maximum time under the law. (In November 1879, the Sutter St. RR obtained a 50-year franchise for its horsecar and cable car service, including its line "commencing at the City Front on Market street; thence along Market street to Sutter street; thence along Sutter street to Central avenue.")

1880 At the beginning of the 1880s, S.F. is by far the state's most populated city, with 27% of the state's residents and five senators and 18 assemblymen in the state legislature. The city's population had increased from 56,802 in 1860 to 233,959 in 1880 (with a major reduction in the 11 to 1 ratio of men to women that prevailed in the 1850s and '60s).

Although S.F. would continue to be the state's most populated city for more than three decades, the patterns of the state's population growth were beginning to change. For example, the Atchison, Topeka and Santa Fe Railroad reached San Diego in November 1885 and Los Angeles in May 1887. The resulting fare war between the Santa Fe and the SP brought new residents to the southern part of the state, a population growth that would contribute to the decline of S.F.'s importance in state politics. (Los Angeles' population jumped from 11,183 to 50,395 between 1880 and 1890.)

Nov. 7, 1882 The Democratic Party, under the blind political boss Christopher Buckley, sweeps to victory in the biennial city elections, enabling the newly elected officials to dispense city jobs to friends, relatives, and party loyalists. (Republicans, under their own bosses, were equally adept at this practice when they were in power.)

Transit services, gas and electric companies, and the Spring Valley Water Company (supplier of the city's water) paid generously for franchises and favorable regulations during this era. But those were not the only benefits that money could buy. Buckley, for example, acquired \$100,000 worth of the Sutter St. Co.'s bonds, and was particularly attentive to that company's welfare. He obtained reduced property valuations for the company from the city assessor and, when lawsuits were imminent, favorable decisions from the city attorney's and coroner's offices.

Aug. 22, 1883

Market St. cable service begins, operating from the ferry terminal, on Market and Valencia to Valencia & Mission Sts. This was the first of the Market Street Cable Railway lines to be converted from horsecar to cable. The company, owned by the SP, made a connection with that railroad at the railroad's 25th & Valencia Sts. station.

Market St. became known as "The Slot" because of the slot between the rails, and South of Market was referred to as "South of the Slot" long after cable cars had ceased operating on Market St.

Cable car lines brought improved transit service to San Franciscans, but the mechanization and increased speed of transit operations also brought new hazards to the city's streets — over the next several years, there were continuing calls for the city's government to address transit companies' disregard for the safety of passengers and pedestrians.

Oct. 12, 1883

S.F.'s park commissioners vote unanimously to allow the Park & Ocean Railroad, a steam-line subsidiary of the Market St. company, to operate from Haight & Stanyan, on Stanyan, across the southeast corner of Golden Gate Park, on H St. (now Lincoln Way), and then on its own right of way at the far western end of the park to a terminal at what is now La Playa & Balboa. The company was also given the right to construct a depôt within the park near Haight & Stanyan.

For many, this use (or misuse) of park land was another example of the power of the SP. Stanford had been a commissioner who had never attended a meeting, avoiding the appearance of conflict of interest by resigning his office when he was sure that his replacement and the other two commissioners appointed by the governor would approve the steam line. (Crocker was accused of bribing the commissioners to allow the railroad's operation in the park when he donated \$10,000 for the rebuilding of the Conservatory, which had been damaged in a fire.)

The commissioners approved the line after most of the construction work had been done, and granted a fifty-year lease to the railroad even though they were legally authorized to grant leases for no more than three years. (Mayor Washington Bartlett vetoed the approval of the railroad's franchise for operation in the city, but the veto was overridden by the Board of Supervisors.)

Dec. 1, 1883

Opening day of the Park & Ocean Railroad. The Market St. company's cable line on Haight St. had begun service that September, and the steam line was an immediately popular means to get to Ocean Beach and the Cliff House. For instance, on Sunday, December 17th, more

than 10,000 people were at the beach, and although train service was frequent, there were more people at the Stanyan St. terminal than could get on board. Separate fares were charged on the cable and steam lines, making the service to the beach quite profitable for the SP's owners. (The steam line was converted to electric service in June 1898.)

After the opening of the line, squatters made claims on land at the beach and erected a series of shacks called Mooneysville, from which they sold coffee, liquor, or anything else that they could sell to the thousands who arrived by the railroad. The squatters saw no reason why, since Crocker, Stanford, and company had broken the law by having the railroad built, they could not make some money of their own from the railroad's passengers. However, the "town" was short lived, and the shacks were torn down by a park "expeditionary force" at the end of January.

- June 30, 1884 First day of service of the Telegraph Hill Cable Railway, a funicular railway that ran on Greenwich from Powell to a pavilion at the top of Telegraph Hill. The line was not successful, and the service was abandoned after less than three years of operation.
- Mar. 3, 1885 Leland Stanford, the president of the SP, also becomes a public office holder when he takes a seat in Congress as a U.S. senator from California. As the candidate of the Republican Party, he had been elected to a term as governor of California in September 1861, in the first year of the Civil War. His election as senator, however, was not an expression of the public's approval. Like all U.S. senators until the adoption of the 17th Amendment in 1913, he had been elected by the state legislature.
- There were allegations that the railroad's money had bought Stanford the office, something that was later confirmed by Huntington during a public falling out between the two. (Stanford was often referred to as "£eland \$tanford" in the S.F. newspaper columns of Ambrose Bierce.)
- The SP ("the Octopus," as it was often called) came to be heartily disliked by many Californians. The railroad was by far the most dominant force in California politics in the late 19th and early 20th centuries. Its money was able to buy the loyalty of political organizations throughout the state and the votes of local, state, and federal office holders.
- 1885 By the mid-1880s, the Market St. and Sutter St. companies had made an informal agreement to moderate the transit competition in the city and work together to obtain favorable regulations. This did not sit well

with the political bosses, who could be more prosperous in a competitive environment.

Dec. 8, 1886

Sutter St. Co. workers go out on strike for a reduction in working hours and better pay.

At the beginning of 1886, carmen in S.F. were generally working 13 1/2 to 15 hours a day. Because of workers' demands that year, along with a four-day strike against two companies that July, most transit companies began paying their carmen \$2.50 for a 12-hour day. Although the Sutter St. Co. had raised its carmen's wages after the July strike, the increase was only from \$2 to \$2.25 for a 13 1/2 hour day.

GSP&O workers had similar problems with their company and joined the strike on December 13th. Strikebreakers were hired, and there was a great deal of violence — cars were damaged, strikebreakers were beaten, and one person was killed. (Newspapers reported eight instances of the use of dynamite by the striking workers.) The strike was not successful, and it was ended the next March.

Mar. 11, 1887

The governor signs a bill limiting gripmen, drivers, and conductors to a 12-hour day. Although the transit strike was not successful, it had generated enough sympathy for the workers to result in the passage of the law by the legislature, and, unlike the 1874 bill, its approval by the governor. This was one of the first examples of legislation that regulated the conditions of a particular class of workers in California.

Mar. 28, 1888

First day of operation of Ferries & Cliff House Railway (F&CHRy) cable service on Powell St. Full service on the Powell lines — the Powell-Mason and Washington-Jackson lines — began a few days later. (The company was also called the Powell Street Railway.)

The Powell-Mason line operated on its present-day route, while the Washington-Jackson line also operated on Powell from Market, but turned westward on Jackson to Presidio Ave. and then down the hill to California St. On the return trip, the line operated on Presidio, Jackson, Steiner, Washington, and Powell.

July 1, 1888

The F&CHRy begins operating a steam line from the end of the Washington-Jackson line at California St. & Presidio Ave., on California to 33rd Ave. and then around scenic Land's End to a terminal at 48th & Pt. Lobos Aves. Until February 1894, a branch of the steam line operated on 7th Ave. from California St. to Golden Gate Park, where the terminal building still stands. (The California St. and Land's End line was converted to streetcar operation in May 1905.)

The Land's End service broke the Market St. Co.'s monopoly of rail service to the Cliff House and Ocean Beach. Unlike the Market St. Co., the F&CHRy did not charge an extra nickel for the transfer from its cable line to its steam service. (Also, Cal Cable made an agreement with the F&CHRy for a free transfer to the steam line.)

Aug. 26, 1889

First day of service on the Omnibus Co.'s main cable route, beginning at the ferry terminal and running on The Embarcadero and Howard St. There were two lines on the route, one to Howard & 26th St. and the other turning east from Howard, on 24th St. to Potrero Ave. (South of 12th St., Howard St. is now called South Van Ness Ave.)

This was the last company in S.F. to start cable operations, converting a little less than half of its horsecar service. Its cable lines were on essentially flat routes and, in retrospect, the company would have been better off if it had chosen electric streetcars instead.

Feb. 5, 1890

An ordinance is approved rescinding railway franchises granted more than eight years before January 1890 on which no work had been started. Some unbuilt franchises had been granted as part of failed real estate ventures, but others had been obtained to stifle competition, or as part of money-making schemes that had nothing to do with the company's providing its own services on the route.

Feb. 9, 1891

Cal Cable's O'Farrell, Jones and Hyde line and Jones Street Shuttle begin service, the last entirely new cable car lines built in the city. The O'Farrell, Jones and Hyde line started at O'Farrell & Market and ran on O'Farrell, Jones, Pine, and Hyde to Beach St. The shuttle operated on Jones between O'Farrell and Market. (There were later extensions to other cable car lines, including the conversion of the Clay St. Hill line, which had been purchased by the F&CHRy, into the Sacramento-Clay line in 1892, and an extension of the McAllister line, on Fulton St. from 8th to 12th Aves., in 1902.)

As with other transportation improvements, the introduction of the cable car was both a response to, and an influence on, population growth. Cable car lines changed the pattern of S.F.'s population growth — instead of south of Market and east of the hills, new population growth was to the north and west.

S.F. had eight cable companies operating twenty-two lines (not including the funicular line on Telegraph Hill, and counting the Clay St. Hill line and Sacramento-Clay line as separate lines). Over 600 cable cars were in service in S.F. in the 1890s.

- Apr. 13, 1891 The city prohibits overhead streetcar wires in the downtown area. Although this order was repealed the next year, the ban continued to be enforced on Market, Geary, and Sutter Sts.
- Opposition to overhead wires was later reinforced by the relative success of underground electrical conduit systems, developed in the mid-1890s, in powering streetcars in New York City and Washington, D.C. Although there was a reluctance to scrap the expensive cable systems, public antagonism toward overhead wires, led by city beautification proponents, was the most important reason for the delay in major electrifications in S.F.
- Apr. 26, 1892 Opening-day ceremonies for the San Francisco & San Mateo Railway, S.F.'s first electric streetcar line, with regular service starting the next day.
- The line ran from Steuart & Market, on Steuart, Harrison, 14th St., Guerrero, San José Ave., 30th St., and Chenery, then on a trestle over Diamond Ravine, and then on Old San José Road to Holy Cross Cemetery in what is now Colma, San Mateo County. In the downtown area, the eastbound tracks were on Harrison, 8th St., Bryant, Stanley Place (now Sterling St.), and back to Harrison because of the difficulty streetcars would have had with the grade on Harrison between 3rd St. and Stanley Place, on the western slope of Rincon Hill. Much of the circuitousness of the line was also caused by the company's having to avoid streets that were subject to other companies' franchise rights.
- Service was every 10 minutes from Market to 30th St., with less frequent service on somewhat larger streetcars from 30th to the cemeteries. The fare was 5¢ to the county line and 10¢ to the cemeteries.
- Nov. 8, 1892 A \$600,000 bond issue for a new building at the ferry terminal at the foot of Market St. is approved by the state's voters – a new Union Depot and Ferry House to replace the one that had opened in 1877. The bond issue required a simple majority for approval, and it passed with an 866 vote majority out of the over 180,000 votes that were cast.
- The architectural firm headed by A. Page Brown was awarded the contract for the design of the new building in September 1895. The design of the clock tower was based on the design of the campanile in the Piazza San Marco in Venice and the Giralda tower of the cathedral in Seville.
- 1892 The Omnibus Co. begins a "war of competition" with the Market St. Co.

For instance, the Omnibus Co.'s cable line on Oak St. was in direct competition with the Market St. Co.'s Haight, Hayes, and McAllister St. cable lines that served both the park and the company's steam-line terminal at Stanyan. The Market St. Co. tried to extend its Haight St. cable line to Arguello Blvd., on the south side of the park, and move the steam terminal farther west to avoid the competition. In response, the Omnibus Co. and two streetcar companies started their own track construction on Stanyan, and the Market St. Co. was forced to abandon its plans.

Oct. 14, 1893

Announcement of the consolidation of several city railway companies into the Market Street Railway, under SP ownership. Included in the consolidation were the F&CHRy and the Omnibus Co.

Although the 1878 fare law stated that a fare would also be good for a ride on a connecting line of the same company, the Market St. company continued to charge 5¢ for transfers as if the consolidation had not taken place.

(Huntington's nephew, Henry E. Huntington, oversaw the merger of the companies for the SP. After leaving the SP a few years later, he developed urban and interurban streetcar service in the Los Angeles region under his Los Angeles Railway and Pacific Electric Railway companies. The streetcar service provided by Huntington's companies allowed the Los Angeles region to become a major urban area before the advent of the automobile as an important means of transportation in the 1920s.)

1893

The middle of that year had seen the beginning of one of the severest depressions of the economy in U.S. history, and as in other times of high unemployment, transit company owners for the next few years are able to deal with labor problems by firing any worker suspected of trying to organize a labor union.

Jan. 27, 1894

The California Midwinter International Exposition officially opens in Golden Gate Park and runs until the 4th of July. Public transportation improvements for the Midwinter Fair, as it was generally known, included the extension of the Market St. Rwy.'s Sacramento-Clay cable line on 6th Ave. to the park, and the construction of a temporary Peninsula railroad branch line that ran near Lake Merced, reaching the park close to what is now 45th Ave. & Lincoln Way, and then running on the south side of the park to a terminal near Stow Lake.

The civil engineer for the fair was a man from Ireland named Michael M. O'Shaughnessy.

Sept 7, 1894 The Market St. Rwy. purchases the Metropolitan Railway, the city's second electric line, which had started service in October 1892, running on Eddy from a terminal at Market St. and then on a very circuitous route to 9th Ave. & Lincoln Way.

Sept. 15, 1894 Streetcars replace the Market St. Rwy.'s horsecar service on Mission St., running from The Embarcadero to 29th St. and on 29th to Noe, with shuttle service on Mission between 29th St. and China Ave. (now Excelsior St.).

Over the next few years, most of the Market St. Rwy.'s horsecar lines and the cable car lines that it had acquired from the Omnibus Co. were converted to electric service. There was also some route consolidation, but the routes generally maintained their parallel or zigzag patterns.

Nov. 6, 1894 Adolph Sutro is elected mayor as a candidate of the People's Party. His campaign included calls for 3¢ railway fares and the municipal ownership of public utilities, but the major reasons for his success were his well-known philanthropy and his denunciations of the SP. (He probably would not have been successful without the institution of the secret ballot for general elections, approved by the state legislature in 1891.)

Sutro had personal experience with the SP's way of doing business. After the Market St. Rwy. took over F&CHRy operations, the SP management began charging 5¢ for a transfer to the California St. steam service for a ride out to the Cliff House and Point Lobos area, which Sutro owned.

Sutro was determined that the fare should be no more than 5¢ from the Ferry Building to the ocean, and the SP found that he could be a formidable opponent. Besides a mayoral campaign that included the slogan "the Octopus must be destroyed," he began charging a 25¢ fee to Sutro Heights and the Cliff House for anyone who came by the Market St. Co.'s lines, and obtained a franchise for his own streetcar service to his properties.

The Market St. Rwy. management backed down, and stopped charging a nickel for the transfer a few days before Sutro was elected mayor. Also, lawsuits resulting in \$200 fines for each violation of the free transfer requirement forced the company to pay attention to the 1878 fare law and implement a universal transfer system for its own lines.

- Feb. 1, 1896 The Sutro Railroad Co. begins streetcar service on a line running from Presidio Ave. & Sutter, on Presidio Ave., California, Parker and Euclid Aves., Arguello Blvd., Clement, 33rd Ave., Pt. Lobos Ave., 48th Ave., and a private right of way to a terminal at Sutro Baths. (Sutro Baths would have its official opening a few weeks later.)
- Sutro made an agreement with the Sutter St. cable company for free transfers between its system and his line at Presidio Ave.
- (Sutro's health began to decline. His daughter Emma Sutro Merritt, a physician, was appointed his guardian in February 1898, and she became the president of the Sutro RR Co. After Sutro's death that August, she remained in that office until October 1899, when the line was sold to the Sutter St. company.)
- Aug. 3, 1896 A lawsuit is filed to restrain the Board of Supervisors from extending the GSP&O's 25-year franchise. The court decision in 1898 stated that the board could not take any action prior to one year before the franchise's expiration in November 1903.
- The company was operating a cable line from Geary & Market, on Geary and 5th Ave. to Fulton St. at Golden Gate Park. The GSP&O had been under the SP's control since 1887, but because the SP did not own all of the GSP&O's stock, the company was not consolidated with the SP's other transit operations in the city.
- Oct. 5, 1896 The San Francisco and San Joaquin Valley Railway begins railroad service between Fresno and Stockton, the port for the San Joaquin Valley, with connecting ferry service between Stockton and S.F. (The railroad was extended to Bakersfield in 1897, and the company was sold to the Santa Fe in 1898.)
- The new railroad was sponsored by S.F. merchants, San Joaquin Valley ranchers, and other shippers, and also received financial support from towns and their residents in the valley. During the fund raising for construction, it was promoted as "The People's Railroad" to emphasize its intended role in breaking the SP's grip on freight rates.
- The special passenger train that ran from Stockton to Fresno in celebration of the railroad's first day of service was called "The Emancipator."
- May 26, 1898 S.F. voters approve a new city charter. Included was the declaration that the city's "public utilities shall be gradually acquired and ultimately owned by the City and County."

James D. Phelan, S.F.'s mayor from 1897 to 1901, was a strong advocate of public ownership of the city's utilities and played a major role in seeing that the language concerning public ownership was in the charter proposal submitted to the voters.

"Progressive" proponents of good government in the U.S. in the late 19th and early 20th centuries wanted more "business-like" municipal government, but also desired public control over necessary public services — "public" utilities, such as water, gas and electricity, telephones, and transit. The privately owned utilities were often associated with the corruption of public officials, because bribery was a very effective way of obtaining franchises and favorable regulations. Reformers saw the public ownership of the utilities as a way to provide services that were more efficient, less expensive, and truly responsive to the public's needs.

In California, the public's distrust of local utility companies was exacerbated by the statewide political power of the SP. The railroad worked with local utilities to ensure that their common interests, and not the public's, were foremost in the minds of state and local government officials.

July 13, 1898

The new Ferry Building is dedicated after the first ferry boat, the S.P.'s "Piedmont," arrives at 12:15 p.m.

The ferry terminal was so important for transportation that it was the starting point for measuring distances in S.F. (For example, there is a 49'ers' Four Mile House at Third St. & Underwood Ave. and a Five Mile Market at San Bruno & Wilde Aves.) Although the Peninsula service used 3rd & Townsend Sts. as a starting point for mileage (now 4th & Townsend), the north end of the Ferry Building was the "0" milepost for other railroad service, including the Northwestern Pacific Railroad.

Jan. 8, 1900

The new city charter takes effect, after it had been approved by the state legislature the previous January. Under the Consolidation Act, 12 supervisors had been elected by districts, but under the new charter, 18 supervisors would be elected at large. (The mayor would continue to preside at the meetings of the board.)

The new charter and restrictive amendments in 1902, '07, and '10 discouraged expansion of the privately owned transit services, while the city's population continued to increase.

Distrust of private ownership in the field of public transit was especially strong in the U.S. during the era of tremendous growth of electric streetcar service in the 1890s and early 1900s. (As a candidate in a

close but unsuccessful race for mayor of New York City in 1905, newspaper publisher William Randolph Hearst called for the public ownership of street railways and other utilities.)

Mar. 4, 1902

Further consolidation of railway lines with the incorporation of the United Railroads of San Francisco (URR), controlled by Eastern U.S. financiers, leaving only Cal Cable, the GSP&O, and the Presidio & Ferries Railroad as separate operations. With the consolidation, the URR had 226 miles of single track, with 404 streetcars, 374 cable cars, 77 horsecars, and 6 steam locomotives.

Although there was some expansion of streetcar service after the consolidation, there was still inefficient and overly concentrated transit service in some areas of the city and little or no service in other areas.

Apr. 19, 1902

With no warning, the members of the URR carmen's union begin a strike at 6:30 p.m. that Saturday by abandoning their streetcars in the downtown business district. The strikers were demanding the reinstatement of 35 union men and a reduction in working hours from 11 1/2 to 10 hours a day.

Fewer than half of the carmen were union members, but non-union workers soon joined the strike. The striking workers were aided by Mayor Eugene Schmitz, who refused to allow URR guards the permits to carry weapons on the cars. The city's newspapers and the public supported the demands for better working conditions, and the strike was settled in the workers' favor on April 26th.

Within a few months of the URR's incorporation, the company's owners came to realize that they had paid too high a price in acquiring most of the city's transit services. For the financiers to receive their expected return on investment, the transit system would have to be modernized wherever possible, and any increase in labor costs would have to be strongly resisted.

The most important of the investors in the URR was Patrick Calhoun, a grandson of John C. Calhoun and an entrepreneur whose many business ventures included the development and consolidation of street railways in Baltimore, Pittsburgh, and St. Louis. Calhoun did not expect that he would have to take personal charge of the URR, but its many problems, especially with labor, caused him to take over the presidency of the company, a position he held from 1905 to 1913.

Nov. 6, 1903

The GSP&O franchise expires. Although it had no authority to do so, the company continued to operate, paying a percentage of its revenues to the city.

The city saw the expired franchise as an opportunity to start its own transit service, and there had already been unsuccessful attempts, in December 1902 and October 1903, to obtain voter approval for a bond issue for a municipal streetcar line on Geary, using an electrical conduit system. (Both propositions obtained majorities in their favor, but not the 2/3rds approval necessary for a bond issue.)

Besides the public's dissatisfaction with S.F. transit companies' management over the years, proposals for a municipal streetcar service were based on a desire for the city to take a more active role in its own development, especially since Bay Area ferry and rail services were allowing other cities (particularly in the East Bay) to compete with S.F. for the residences of its commuters. This desire was reinforced by the knowledge that with a more restrictive city charter and with hills that would require large expenditures for streetcar line construction, private ownership could probably not be expected to provide the new service that was needed for the development of the city's underpopulated areas.

Although a municipal streetcar line on Geary would provide an important transit service, the transit franchises on many of the other major streets would not expire until 1929, and the downtown terminal for a Geary line would be at Kearny & Market, over half a mile from the Ferry Building, the most important public transportation terminal on the West Coast.

Apr. 18, 1906

The 5:12 a.m. earthquake and the subsequent fires devastate the city and its public transportation system.

The SP played a major role in the relief effort by evacuating many thousands of people and bringing in supplies. The URR gained much good will by such actions as allowing its car houses to be used as shelters, providing free service for the first few days after it resumed operations, and making the first large contribution to the city's relief fund.

Apr. 27, 1906

Mayor Schmitz, accompanied by URR officials, city supervisors, and other dignitaries, operates a streetcar from the Turk & Fillmore car barn, on Fillmore to Pacific, then returning on Fillmore, Duboce Ave., Church, 16th St., and Mission to 5th St., helping to symbolize the city's quick resurgence from the disaster.

Although the URR's Fillmore & 16th St. streetcar line was back in operation after only a few days, it took many months for full transit service to resume. (The Fillmore line was an important factor in that

street's becoming the city's major business street for a brief time after the earthquake.)

In the aftermath of the disaster, the last steam and horsecar lines, and several of the remaining cable lines, were either abandoned entirely or converted to electric service.

May 3, 1906

The first streetcar runs on Market St., from 5th St. to the Ferry Building, with Mayor Schmitz at the controls. The car ran on the cable car tracks and was powered by electricity from temporary wires that had been strung overhead. After a stop at the Ferry Building for a commemorative photograph, the car was operated on Market to Valencia. (The car was the URR's private-party car "San Francisco.")

There was streetcar service on Market to Castro and on Market and Valencia to 28th St. within the next few days. The streetcars could run on the Market St. cable car tracks because the track gauge was the standard 4' 8½". It took a few weeks longer for the URR to convert the former Sutter St. Co.'s lines to streetcar service, because those cable car tracks had a five-foot gauge.

May 21, 1906

The Board of Supervisors unanimously approves an ordinance allowing the URR to convert its cable lines to service powered by electricity from overhead wires, with Mayor Schmitz signing the ordinance three days later. (Because of uncertainty about the legality of approving an ordinance during the legal holidays that had been declared after the earthquake, another ordinance allowing the conversion of the cable service to electricity was approved the next month.)

There were some objections to the permanent installation of overhead wires, and Mayor Schmitz made a statement, which he soon retracted, that the ordinance was only a temporary measure until cable service could be restored or an electrical conduit system could be installed in the streets. (The language of the ordinance made no reference to any temporary installation of the overhead wires, and the URR had every intention of making sure that they were made permanent.)

Because of the post-earthquake emergency, the ordinance probably would have passed without any extra help from the URR. But it was later learned that the URR had bribed Mayor Schmitz and 17 of the 18 supervisors through the good offices of political boss Abe Ruef, who pocketed \$65,000 of the \$200,000 in bribe money. The \$200,000 was the largest of the "attorney's fees" that were paid to Ruef by businesses in attempts (usually successful) to influence the mayor and the board.

- June 22, 1906 The GSP&O resumes service, the first cable car line to do so. It had actually continued running for a few hours after the earthquake, and damage to the powerhouse at Geary & Buchanan was the major cause for its shutting down for a few weeks. The route could have been converted to streetcar service, but the city had no interest in giving the company the opportunity to re-establish any kind of long-term operating rights.
- Although Cal Cable's three lines resumed operation, that system was not fully restored until June 1908. In all, nine cable lines resumed service, some of them shortened and most of them on grades too steep for streetcars. (The Washington-Jackson line was cut back to Steiner St., with a new streetcar line on Sutter, Fillmore, Jackson, and Presidio Ave. to California St. taking over service on the outer portion of the route.)
- Sept. 14, 1906 The Presidio & Ferries RR receives a permit from the city to convert its steam, cable, and horse railway lines to streetcar service.
- Like the Sutter St. Co., the Presidio & Ferries Co. had never been able to extend its cable service to the ferry terminal, and its horsecar line had operated to The Embarcadero from the end of its cable line at Columbus Ave. & Washington St.
- Oct. 20, 1906 The city's district attorney announces that there will be a special prosecution for the bribery scandals. A new grand jury was formed for the graft prosecution, because the one then in place had been hand picked by an associate of Ruef's.
- May 4, 1907 More than 1,500 members of the carmen's union vote to strike against the URR for wages of \$3 for an eight-hour day. The carmen's union president, Richard Cornelius, and other influential persons in the S.F. labor movement believed it was the wrong time for a strike, but the union's membership had been angered by Calhoun's refusal to make any concessions on hours or wages in the labor negotiations.
- May 5, 1907 First day of the strike by URR workers. The URR used the services of a national strikebreaking agency to bring in strikebreakers who were well-trained in both the operation of streetcars and the use of firearms. The strike had little support in the press, and it was highly unpopular with most of the public. It was broken on September 12th, when the General Campaign Strike Committee, seeing that the URR had defeated the union, ended its boycott of the company. The strike was not officially over until the next March, with the union giving up its charter and going out of existence later that year.

There was violence on both sides during the strike. It caused more deaths than any other strike in the history of S.F., and it was probably the most violent streetcar workers' strike in any American city. Between May 1907 and March 1908 at least six men died of gunshot wounds, over 25 people were killed in streetcar accidents, and more than 1,100 were injured in accidents or in incidents between strikers and strikebreakers.

- May 7, 1907 At 3:25 p.m. that Tuesday, six streetcars carrying armed URR employees leave the Turk & Fillmore carbarn in an attempt to operate on Turk to Market St., resulting in a running battle between strikers and strikebreakers that fills the air with rocks, bricks, and bullets. One of the streetcars was taken over by the strikers and returned to Turk & Fillmore. When it accidentally crashed into the gate at the barn, URR employees inside the barn thought they were being attacked and started shooting.
- In the conflicts that day, two men were killed and over twenty were wounded, including some bystanders, and the city's labor movement remembered the day as "Bloody Tuesday" for many years.
- July 16, 1907 After two other prominent citizens had turned down the offer, Dr. Edward R. Taylor is appointed mayor, allowing him to replace board members who resigned in the bribery scandals. The 68-year-old Taylor was "one of the most distinguished professional men in the city." He was a doctor and a lawyer, and was highly regarded in both professions.
- (In November, Taylor and a new board were elected for full two-year terms. They were decidedly less friendly to the URR than the city officials who had taken bribes from that company and other businesses, including gas and telephone companies.)
- July 20, 1907 Striking workers shoot the crew of a streetcar at 29th St. & Noe. The car was released down the hill on 29th St., and it smashed into buildings on Mission St.
- Sept. 6, 1907 The GSP&O finally obtains an operating permit from the city, with a provision that the city could force the company to stop operations on one day's notice.
- Dec. 8, 1907 The SP begins operations on its Bayshore Cutoff, reducing train running times in S.F. and the northern Peninsula. (The SP's passenger terminal was at 3rd & Townsend. It was at that location

from 1873 until a new depôt at 4th & Townsend opened in January 1975.)

Prior to the opening of the cutoff route, mainline SP service had operated through the inner Mission District and the Bernal Cut. After the cutoff was opened, the old route became the Mission Branch, until the section of the route from Folsom & 23rd Sts. to San José Ave. & Miguel St. was abandoned in August 1942.

Dec. 9, 1907

The Board of Supervisors approves a 60-day permit allowing electric streetcar service on the outside set of tracks on Market St. between Sansome and the Ferry Building.

There had been streetcar service on those tracks since July 1906, but it had been operating without authorization from the city. In its haste to obtain an ordinance allowing the conversion of cable car service to streetcars, the URR management had failed to remember that the outside tracks had been served by horsecars prior to the devastation of the earthquake and fire, and the ordinance had not included the necessary wording for the conversion of the horsecar line to streetcar service.

Over the next few months, the board approved a series of resolutions that extended the permit until Monday, June 1, 1908, the day of a regular board meeting.

June 2, 1908

The URR's Sutter St. streetcar service is cut back from the Ferry Building to Sutter & Sansome, and horsecar service is reinstated on the outside set of the four tracks on Market from Sansome to the Ferry Building. (The URR's remaining streetcar service on Market St. was forced to make exclusive use of the inside tracks.)

The previous day, the Board of Supervisors had voted that another permit for streetcar service would require the URR to pay \$1,000 a month and make a written agreement allowing a city line or any other line the right to operate on those tracks. Saying it didn't want any sort of temporary permit, the URR refused, and began operating the horsecar service on June 2nd.

Dec. 10, 1908

Boss Ruef is sentenced to 14 years in San Quentin prison for his part in the URR bribery of the mayor and all but one of the supervisors. (He was paroled after serving slightly over four and 1/2 years, and was later pardoned.) The URR's chief counsel, former California state attorney general Tirey L. Ford, and the company's president, Patrick Calhoun, were also tried for their part in the bribery. But of all of the politicians and businessmen who were indicted in the bribery scandals,

Ruef was the only major figure to serve a prison sentence, in part because he did not testify at the trials of the persons who were responsible for giving him the money. (Schmitz always claimed that he had never received any bribe money. He remained popular, and a few years later he was elected to the Board of Supervisors.)

The graft trials divided the city into pro- and anti-prosecution camps, since some people were quite willing to see corrupt politicians go to prison, but balked at prosecuting the prominent businessmen who had corrupted them. (Calhoun was considered a hero by many in the business community for his unyielding stand against the carmen's union.)

June 24, 1909 A \$1,950,000 bond issue for the construction of a city-owned Geary St. streetcar line, to be operated from Kearny & Market to the ocean, falls short of the necessary 2/3rds majority for approval by 402 votes, out of the total of over 22,000 votes that are cast.

Oct. 18, 1909 The Board of Supervisors passes the first of a series of resolutions and ordinances that are approved over the next few weeks, actions required under the charter prior to an election for the approval of bond issues for the city's own streetcar service. (One ordinance, for example, included an order for the city engineer to provide the board with plans for the line and estimates of its construction costs.)

Nov. 2, 1909 The results of the races for mayor and district attorney in the biennial city elections signal that the voters wish to see an end to the long graft trials. (Taylor did not run for re-election.)

While there was no question of a return to the corruption of the Ruef era, there was reason to believe that Patrick H. McCarthy, who would become mayor on January 8th, would not provide the progressive-minded leadership that many felt was needed by the city.

Nov. 22, 1909 The Board of Supervisors votes 12 to 6 to call a special election, to be held on Thursday, December 30th, for two propositions for bond issues totaling \$2,020,000 for the construction of a municipal streetcar line on Geary and Market Sts., from the Ferry Building to the ocean.

The first proposition, for a \$1,900,000 bond issue, was much the same as in the June election — for the construction of a line from Kearny & Market to the ocean (with a branch line on 10th Ave. to Golden Gate Park), the construction of a car house, and the acquisition of 40 streetcars.

The second proposition, for a \$120,000 Market St. bond issue, included funding for the construction of tracks between Kearny and Sansome, and the purchase of half ownership of the outside tracks between Sansome and the Ferry Building based on one-half their estimated value. Funding for that portion of the line was kept separate because of the legal questions involving the construction on Market St. and the use of the URR's tracks.

Four of the six daily newspapers in the city supported the call for the city's own streetcar line. (Of the two that did not, one was subsidized by the URR.) Newspapers' estimates of the amount that the URR spent in campaigning against the propositions ranged from \$100,000 to \$250,000. The URR claimed that a city-operated streetcar line would not pay its own way and would become a "white elephant" for the city. Counter-charges included the statement that "if the United Railroads had the Geary-street road, the line would be run with the sole purpose of making the greatest possible amount of money by giving the least possible service."

Dec. 13, 1909

That evening, the Public Utilities Committee of the Board of Supervisors holds its first meeting in the campaign for the two propositions.

The city's labor movement played a major role in the campaign. Although women did not have the right to vote, a women's special committee for the campaign urged women to use their influence on those who did.

There were usually fewer polling places for special elections because of low turnouts, but the city opened the same polling places for the December 30th election as in the November general election, so that there would not be any inconvenience, or confusion about where to vote on the two propositions. Based on the turnout and the closeness of the vote in the June election, the propositions' supporters were confident of a victory if 30,000 voters went to the polls on December 30th.

Dec. 30, 1909

With a turnout of over 42,000 voters, the two propositions for the city's own streetcar service obtain majorities of 72.7%. The number of voters made it the largest turnout for any special or primary election in S.F. up to that time.

There was widespread support for the municipal streetcar line, and only one of the 18 state assembly districts in the city did not bring in majorities for the propositions. Among those given credit for the successful campaign were Mayor Taylor and 16 members of the

board, former mayor James Phelan, and former union president Richard Cornelius.

For many, the vote had a "moral as well as material significance." Approval of the city's own streetcar service was an expression of their antipathy towards the URR and its owners' disregard for the public welfare, corruption of public officials, and callous labor practices.

June 25, 1910 Affirming a Superior Court decision, the state Supreme Court rules that "the city and county of San Francisco has the power to construct and operate street-railways and to incur a bonded indebtedness for such purpose."

The GSP&O had challenged the city's right to issue bonds for the construction of its own streetcar line, but the Supreme Court ruled that the state could confer its power over public utilities to the state's municipalities, and that S.F.'s right to have its own streetcar service was authorized by its charter, which had been approved by the state legislature.

Nov. 8, 1910 The S.F. graft trials were only partly successful, but they did help the cause of statewide reform. Hiram L. Johnson's role as the prosecutor in Ruef's trial helped him obtain the governorship in the November 1910 election, which he captured with a promise "to kick the Southern Pacific Railroad out of politics."

Aided by the first California state primary in which there was a direct election of each party's candidates, progressives gained full control of both houses of the legislature. Among the next year's sweeping reforms were comprehensive measures for the regulation of railroads and other public utilities. The utility reforms had been so badly needed for such a long time that several of the state's utilities favored the new laws, and in a few months even a major official of the SP would say that he did not want to see a return to the old ways.

(In October 1911, the voters approved 22 out of 23 proposed amendments to the state constitution, including one allowing for initiatives and referendums, and another allowing women the right to vote in state and local elections, which was passed by a statewide margin of 2,069 votes.)

Mar. 13, 1911 The URR extends its No. 5 streetcar line from Fulton St. & 24th Ave. to La Playa & Balboa St., offering more direct service to Ocean Beach than its Haight St. and Lincoln Way line, and anticipating the start of the city's streetcar service to that area.

Before April 1906, cars had been assigned to specific lines, and large, permanent signs on the cars allowed the public to easily tell which route was being served. After the earthquake and fire, smaller, removable route signs were used. The URR began using line numbers in 1909, with the numbering for lines 1 through 9 based on where they turned off Market St. from the Ferry Building, and 10 through 14 where they turned off Mission St.

June 1911 Work begins on the city's Geary St. streetcar line, with day laborers hired by the city.

The day-labor system combined an unemployment program with political patronage, and the work was both slow and costly. After James Rolph Jr. ("Sunny Jim") became mayor the next January, the work was bid out to a private contractor, with much better results.

Sept. 21, 1911 S.F. Superior Court Judge J. M. Seawell rules that the URR's Sutter St. Rwy. Co. subsidiary had forfeited its horsecar franchise on lower Market St. The URR had tried to maintain that the old Sutter St. franchise west of Sansome could be operated by electricity under the URR's permit, and that the Market St. service on the outside tracks could be operated by horses under the original franchise conditions.

As part of his decision, the judge ruled that the horsecar service was inadequate for the public's needs. Moreover, the cable car and horsecar franchise from Presidio Ave. to the ferries had been granted by the Board of Supervisors as one continuous line. While it would have been legal to keep the cable car and horsecar service after the earthquake and fire, it was illegal to split the line between streetcar and horsecar service without the permission of the board.

The URR appealed the decision, and horsecars kept operating on the outside tracks on lower Market St.

May 5, 1912 Last day of operation of the GSP&O cable line, as the company is forced to end service despite its objections.

The GSP&O was not compensated for having to cease operations. The city had no obligation to do so — the GSP&O had lost its right to operate on the city's streets, and the city had no use for the cable company's track and equipment.

May 20, 1912 The city contracts to purchase 43 streetcars from the W. L. Holman Co. for \$337,100. (The contract included spare parts, and the price was \$7,700 for a complete car.) This was not the low bid, but the Holman Co. was awarded the contract because it was a local firm.

However, the company was only able to deliver 20 cars, and soon afterwards went bankrupt, with the contract being completed by the Union Iron Works in the city.

Sept. 1, 1912

M. M. O'Shaughnessy is appointed city engineer, and he and Mayor Rolph provide strong leadership during the Municipal Railway's first two decades. (Rolph was elected to successive terms as mayor until he was elected governor in 1930.) During those years, Muni started direct competition with the privately owned service and also began service to areas that had either been unserved or poorly served by the private companies — after 1912, the URR did not expand streetcar service into new areas.

Dec. 28, 1912

The first day of Muni service begins that Saturday with a celebration by a crowd of an estimated 50,000 people at Geary between Kearny St. and Grant Ave. On that first day, Muni's A line operated from Kearny & Market, on Geary and 10th Ave. to Fulton St. at Golden Gate Park, with the B line providing shuttle service on Geary from 10th to 33rd Aves. The downtown celebration lasted from the 12:30 p.m. start of the ceremony until Mayor Rolph returned in the first car an hour and a half later. (Many of the first Muni employees were former URR workers who were blacklisted for striking.)

Although Rolph and the other people at the celebration thought that Muni was the country's first municipally owned streetcar service, it had been preceded by the Monroe, Louisiana, Municipal Street Railway, which began service in June 1906. Muni, however, was the first to gain nationwide attention as a public alternative to private transit ownership.

Muni started at a time when transit service was profitable, but any revenues in excess of capital and operating costs were plowed back into service improvements.

Apr. 22, 1913

The "Lower Market Street Agreement" between the city and the URR is ratified by the voters by a 3 to 2 majority. The agreement allowed for the joint use of the outside Market St. tracks (and the outside loop on state-owned land at the Ferry Building) by Muni and URR streetcar lines, while the URR had the use of the inside tracks.

The city had been forced to hold the referendum by voters who opposed the "dishonorable" compromise that was made between the URR and the city in November 1912 and approved by the Board of Supervisors the next month. Those voters believed the city would be able to obtain the exclusive use of the outside tracks on Market St. and

were quite willing to wait until the URR had exhausted its appeals of the September 1911 court decision.

In fact, the agreement between the city and the URR had been made on very favorable terms for the city. For example, it stated that there would be free transfers for passengers between the Muni and URR lines at Geary & Fillmore and Geary & Divisadero.

Before the April vote, Rolph sent an open letter to an association that opposed the compromise. The letter included his statements that "the substitute you offer is, years of litigation, coupled with agitation and speechmaking," that "you cannot ride on a law-suit or on a speech," and that "common scolds and obstructionists are the curse of San Francisco."

June 3, 1913

Mayor Rolph and URR president Calhoun take turns at the reins of the last horsecar to operate in the city — a last-day-of-service celebration that was made possible by the approval of Lower Market Street Agreement.

The Geary line began service from the Ferry Building to the beach on June 25th, with Mayor Rolph and other dignitaries in the first car. The agreement had allowed for the joint use of the URR's tracks on Geary west of 33rd Ave. (originally part of the Sutro RR route), but the city opted to extend its line on 33rd Ave., Balboa, 45th Ave., and Cabrillo to Ocean Beach.

July 4, 1913

Hundreds of spectators watch a fireworks display and the burning of many of the old railcars in "Carville," in the sand dunes at the Great Highway, just south of Golden Gate Park. The first horsecars and cable cars had been brought to "the western edge of the San Francisco Desert" when the Market Street Railway began selling old car bodies in 1895. At first they were mainly used for club houses and beach cabins, but later they served as permanent residences – single cars, in combinations of two or more, or as the components in a larger structure.

There was an increase in permanent population and the number of cars at Carville after the earthquake and fire. (Later cars included some early electric streetcars that had become outmoded.) In 1908, the area had a population of about 2,000.

The 4th of July burning of the cars was symbolic of the efforts of those who wanted a more progressive image for the area, which they called Oceanside. However, several of the streetcar houses remained until the opening of the N Judah line in October 1928 made the

neighborhood more convenient for more affluent residents. (There are still a very few houses in the Outer Sunset that were built with car bodies as components.)

Aug. 26, 1913

Voters approve a \$3.5 million bond issue for Muni expansion. The vote was largely in response to the desire to provide service to the Panama-Pacific International Exposition that was to be held in what is now the Marina. (The URR refused to provide new service to the exposition under the existing franchise conditions.) Rolph, speaking at up to ten meetings a day to promote the bond issue, characterized the vote as one of "optimism vs. gloom," and the bond issue was approved by 78.9% of the voters.

Muni's first 15 years of development were strongly influenced by consulting engineer Bion J. Arnold's magisterial "Report on the Improvement and Development of the Transportation Facilities of San Francisco" of March 1913.

Dec. 11, 1913

As the company's franchise expires, the city purchases the track and equipment of the Presidio & Ferries RR for \$312,535.32 and begins Muni streetcar service on the company's line. (The company's employees had worked a ten-hour day, but those who were kept on by the city had their working day reduced to the Muni standard of eight hours.)

At the time of the purchase, the company was operating a streetcar line from the Ferry Building, on The Embarcadero, Jackson (westbound) and Washington (eastbound), Columbus Ave., Union, Larkin, Vallejo, Franklin, then back to Union, Baker, Greenwich, and a right of way in The Presidio. After the purchase, the line remained in service while being rebuilt to city standards, and it was named the E line in February 1915.

The purchase price did not include the Larkin, Vallejo, and Franklin section of the streetcar line, which had not been a part of the cable car franchise. The company's property on the route granted before the charter of 1900 took effect was protected from the charter and any of its amendments, but the short section built after the 1906 'quake and fire fell under a 1902 charter amendment stating that the company's property in the street would become the property of the city when the franchise expired.

Dec. 28, 1914

Completion of the 911 ft. Stockton St. Tunnel, constructed for streetcar and other traffic, with Muni streetcar service starting the next day. There was a major celebration by the Chinatown and North Beach

communities on the 28th, with dancing in the streets and in the tunnel until the early hours of the next morning.

The tunnel was financed by a special assessment district of the property owners who would benefit from it. (Streetcars operated through the tunnel until January 1951.)

Feb. 20, 1915 Opening day of the Panama-Pacific International Exposition, with an estimated 150,000 people in attendance. The exposition ran through December 4th of that year. Muni provided service to the exposition with four permanent and three temporary streetcar lines.

Apr. 19, 1915 The Board of Supervisors passes an ordinance regulating jitneys — privately owned vehicles that are driven along heavily used transit routes to pick up fare-paying passengers. About 600 jitneys operated in S.F. during the year of the exposition.

Over the years, the jitney drivers were often accused of "robbing the lines" by taking away passengers from the most lucrative transit routes.

Jan. 18, 1917 U.S. District Court Judge William H. Hunt rules that the URR cannot block the city from laying streetcar tracks on streets where the company has franchise rights. The company had sued after the city had attempted to lay tracks on Market St. at Van Ness Ave. for its J Church line and the lines that would operate through the Twin Peaks Tunnel, then under construction. The judge ruled that although the company was protected from competition by other private companies, "...complainant never has had a right by virtue of the franchise to such free and uninterrupted use of the streets as will relieve it of such inconvenience as may follow from the operation by the City of a municipal railroad...."

Trackwork had been completed for the J line between 30th and 16th Sts. in 1916. After the ruling, the city laid tracks outside the URR's from 16th & Church, on Church and Market to Van Ness Ave., so that a connection could be made with Muni's H line, which had begun service on Van Ness Ave. in August 1914.

July 14, 1917 As part of the ceremonies celebrating the completion of the 11,920 ft. Twin Peaks Tunnel, Mayor Rolph leads a walk through the tunnel from the east portal to the west portal and drives the first spike for the streetcar tracks. Much of the tunnel's nearly \$4.5 million construction costs were paid for by an assessment district.

Aug. 11, 1917 The first day of service on the J Church line, from 30th & Church to Van Ness Ave. & Market. (The service was soon extended on Van

Ness to Geary.) The J line was Muni's eighth streetcar line, not counting the temporary lines that had been operated for the Panama-Pacific exposition.

At about 9 p.m. on that Saturday evening, some of the URR carmen abandoned their streetcars, blocking Market, Valencia, and Haight St. lines and beginning a strike for parity with Muni wage scales. While Muni carmen were making \$3.50 for an 8-hour day, URR carmen had a 10-hour workday, with salaries from \$2.80 a day to a maximum of \$3.70 after nine years of service. (One newspaper pointed out that even common laborers were making \$3 for an 8-hour day, and some URR carmen worked seven-day weeks without overtime pay.)

The company responded as it had a decade earlier, hiring strikebreakers, private detectives, and armed guards. There was violence, but not as widespread as in 1907-08.

The strike was generally supported by the press and the public. However, the union was not strong enough to sustain the strike — a third of the employees did not go out on strike, and about 200 of the strikers soon returned to work. The URR was able to maintain its service, and the strike was called off on November 22nd.

Aug. 13, 1917

Although the URR had argued that it should be allowed to use the Twin Peaks Tunnel and that there should be no further construction of Muni tracks on Market St., the Board of Supervisors votes 16 to 2 for Market St. track construction and Muni's exclusive use of the tracks through the tunnel.

That Monday's vote was at a continuation of a meeting attended by more than 600 people that had been held the previous Friday. That meeting had started at about 7:30 p.m. and had lasted until almost 2 a.m. — the crowd was overwhelmingly against the URR proposal, which would have given the company a virtual monopoly on streetcar service on Market St. and through the tunnel.

The next month, the URR appealed the January 1917 District Court decision concerning the company's franchise rights, but in an opinion written by Justice Oliver Wendell Holmes, the U.S. Supreme Court affirmed the lower court's decision in April 1919.

Aug. 23, 1917

A non-union carman is shot and killed, and other people are injured, when a streetcar is attacked by striking workers.

The president of the S.F. Chamber of Commerce sent Mayor Rolph a telegram saying that Rolph's failure to enforce the law had allowed the

violence to take place. The city was officially neutral, but Rolph, although himself a businessman, was not a friend of the URR and its anti-union supporters. (Anti-union groups included the Law and Order Committee, headed by the chamber's president.)

Rolph sent an open letter in reply to the telegram, including the statement that "doubtless you are disappointed because the police have not yet turned machine guns on crowds in our streets, and killed a few dozen strikers, including the customary number of innocent bystanders."

Sept. 1, 1917 The first day of motor bus transit service in San Francisco, operated by Muni.

The first S.F. routes were temporary ones to aid people without transit service because of the URR strike. On Sept. 7th, a route was established from the end of Muni's A streetcar line at 10th Ave. & Fulton, through Golden Gate Park to 9th Ave. & Judah, and then on Judah, 16th Ave., and Irving to 48th Ave. (later cut back to 25th Ave.). This route came to be called the 1 Park line. (Although O'Shaughnessy attempted to establish Muni streetcar service across Golden Gate Park, park superintendent John McLaren had the political power to prevent him from doing so.)

The first bus service was by rented vehicles, with Muni's own buses beginning service on January 15, 1918. These were five 19-seat coaches purchased from the White Motor Co., with White chassis and J. G. Brill Co. bodies.

Feb. 3, 1918 First streetcar service through the Twin Peaks Tunnel, with K-line service from St. Francis Circle to Van Ness Ave. & Pine.

The east end of the tunnel was constructed to slope downwards for an eventual Market St. subway connection — a connection that was finally made over 60 years later.

June 1, 1918 Completion of the final section of Muni streetcar tracks on Market, between Van Ness Ave. and Kearny, allows J and K line service to be extended to the Ferry Building. (After a third loop was completed that October, over 300 cars an hour could be operated on the loops at the Ferry Building during rush hours, "with no delays worthy of mention.")

With Muni operating on the outside tracks and the private company on the inside, the "Roar of the Four" on Market St. could be heard for many years.

- July 13, 1918 Eight passengers are killed and over seventy injured when a URR streetcar speeds down the hill and jumps the tracks at what is now Geneva Ave. & Schwerin. The car was operated by a motorman, but without a conductor, and a few days later the Board of Supervisors passed an ordinance outlawing one-man streetcar operation.
- Apr. 12, 1919 The L Taraval streetcar line begins service as a shuttle between West Portal and 33rd Ave. (Service was extended to 48th Ave. and downtown in 1923, and to Wawona & 46th Ave., near the Fleishhacker zoo and outdoor swimming pool, in 1937.)
- The service was started after the Taraval Street Agreement between the city and the URR was approved by the Board of Supervisors in November 1918, allowing Muni to share the URR's tracks on Taraval between 20th and 33rd Aves. (The Ocean Avenue Agreement was approved at the same time, allowing Muni to share the URR's tracks on Ocean Ave. The K line began service on Ocean Ave. on February 21, 1919.)
- The K and L lines were instrumental in opening the West of Twin Peaks and Parkside districts for development.
- Aug. 15, 1920 Last day of service on the Ocean Shore Railroad, a line that had begun service in S.F. in October 1907, and had run on Potrero Ave. and what later became Alemany Blvd. in S.F. and part of Highway 1 along the coast. It was planned to be an electric line from S.F. to Santa Cruz, but the owners were never able to make the connection to their operations in the Santa Cruz area, and the only electrification was from its terminal at 12th & Mission Sts., on 12th, Florida, Mariposa, Potrero Ave., and Army (Cesar Chavez St.) to Vermont St.
- Muni's H line shared tracks with the Ocean Shore on Potrero Ave., and Muni operated Ocean Shore trains in S.F. to transport shipyard workers and others during the URR strike of 1917.
- 1920 Los Angeles officially surpasses S.F. in population, as that year's census shows Los Angeles with 576,673 residents and S.F. with 506,676. (Although S.F.'s population grew to 634,394 as of the 1930 census, Los Angeles' more than doubled, to 1,238,048.)
- Apr. 1, 1921 The URR is re-organized into the Market Street Railway (MSRy) because of financial difficulties — but the general public sees no difference in operations except for the name change.
- May 28, 1922 Auto ferries begin operating between Sausalito and the Hyde Street Pier, highlighting the increasing importance of the automobile for Bay

Area transportation and marking a partial shift away from the Ferry Building area as San Francisco's transbay transportation terminal. (Ferries served the pier until July 1938, after the Golden Gate Bridge opened in May 1937.)

The 1920s saw the automobile's emergence as a major competitor to transit systems. (From 1914 to 1928, the number of autos registered in S.F. grew from 12,081 to 122,808.) The increasing use of autos caused slower service, more accidents, and decreased revenues for transit systems. Although the institution of traffic lights improved traffic control, it also slowed transit vehicles.

Feb. 7, 1925 An earth slide causes the MSRY to discontinue its scenic streetcar service around Land's End. The route had been served, at first by steam and then by streetcar, since July 1888.

Oct. 6, 1925 The M Ocean View streetcar line begins service as a shuttle between Broad St. & Plymouth Ave. and St. Francis Circle.

Nov. 3, 1925 With only a 13% "yes" vote, a ballot initiative directing the city to purchase the MSRY for \$36 million is soundly defeated at the polls. The initiative for the bond issue had been backed by The League for Railway Unification, an organization that was widely considered to be sponsored by the MSRY.

Later that month, the MSRY was taken over by the H. M. Byllesby Co., an organization that controlled public utility companies throughout the U.S. The Byllesby management improved the MSRY's relations with its employees and the public.

(The MSRY operated under three tiers of Byllesby holding companies and was managed by a fourth Byllesby company. This kind of pyramiding of public utility holding companies was outlawed by the federal Public Utility Holding Company Act of 1935, and the Byllesby Co. was one of the companies broken up under that law.)

1926 With the exception of the ridership levels caused by the unique conditions during World War II, transit ridership in the city reaches its peak that year. For that calendar year, total transit ridership for Muni and the two companies was 360,998,896 — 11,407,984 (3%) for Cal Cable, 83,227,896 (23%) for Muni, and 266,363,016 (74%) for the MSRY. (The actual number of boardings was somewhat higher, because Cal Cable's figure did not include transfers between its own lines.)

Oct. 21, 1928

N Judah service begins from the Ferry Building to the beach (and through the 4,232 ft. Sunset Tunnel). The Haight St. corridor had been a bottleneck for transit service for many years, and for the first time, the public was offered good service between downtown and the Sunset District.

This was the last entirely new Muni streetcar line to be constructed, with subsequent new routes being served by motor buses or trolley buses.

(Judah St. was named for Theodore Judah, the civil engineer who in 1860 determined a practicable route for a railroad over the Sierra Nevada. The next year, after failing to obtain backing from financiers in S.F., he went into partnership with Sacramento's Big Four and others to found the Central Pacific Railroad. Because of disagreements with the Big Four, he went east in late 1863 to obtain the money to buy them out, but contracted Yellow Fever while crossing the isthmus of Panama and died at the age of 37.)

May 1929

Because many of the important streetcar and cable car line franchises were to expire that year, O'Shaughnessy publishes "A Report on the Street Railway Transportation Requirements of San Francisco: With Special Consideration to the Unification of Existing Facilities." The report included his statements that it was obvious that the MSRY could not "maintain its tracks and equipment in a satisfactory operating condition and render a proper standard of service on a five cent fare," nor could a combined system be operated for the nickel fare, under the wage system for Muni employees then in effect, without a subsidy from the taxpayers.

According to the report, at the end of 1928 Muni had 1,264 employees, 234 streetcars serving 12 lines, and 18 buses serving five routes; the MSRY had 2,851 employees, 725 streetcars serving 43 lines (including one line that operated entirely within San Mateo Co.), 51 cable cars serving five lines, and six buses serving three routes; and Cal Cable had 189 employees and 48 cable cars serving its three lines. The MSRY's 262,000,197 boardings accounted for 73% of that year's 359,282,174 total, while Muni had 85,010,072 boardings (24%) and Cal Cable had 12,271,905 (3%).

Muni's operators and conductors made 75¢ an hour based on an eight-hour day, six-day week, while its machinists made \$1.125 an hour based on a five-and-a-half day week. The MSRY's maximum pay for operators and conductors was 56¢ an hour, and its machinists were paid 67¢ an hour.

(There were also 150 active jitney registrations in the city, fewer than in the peak years of 1917-18. The jitneys were operating on three routes to the Ferry Building — from Haight & Stanyan; from 29th St. on Mission; and from 29th St. on Mission, Valencia, and Market.)

Nov. 17, 1929 Last day of service on the MSRY's cable line on Pacific Ave. between Polk and Divisadero. Originally at the northern end of the Sutter St. Co.'s cable line on Polk, Post, Larkin, and 9th Sts. to Brannan, it was on an essentially flat route, and had only kept operating after the earthquake because Pacific Heights residents objected to replacing the line with a streetcar line that would have needed overhead wires. It was the last line to use grip cars and trailers, rather than the single "combination" cars that had been introduced by the Market St. Cable Rwy. in 1883.

Nov. 4, 1930 The voters approve a city charter amendment allowing the MSRY and Cal Cable to surrender their franchises in return for 25-year operating permits. The vote was only one aspect of a long conflict by a sharply divided electorate over whether municipal services should be operated by the public or the private sector.

Jan. 8, 1932 A new city charter takes effect, after being approved by the voters the previous March. The number of supervisors was reduced to 11, and the city's administrative and legislative activities were strictly separated. Also, the language of the charter regarding the city's acquisition of public utilities was modified to include the condition that the utilities should be acquired "when public interest and necessity demand."

Some of the city agencies under the old Board of Public Works were to be under a Department of Public Works administered by a chief administrative officer for the city, while those that were considered public utilities were put under a Public Utilities Commission (PUC). The PUC would appoint a manager of utilities (known as the PUC general manager) who would oversee Muni, the Water Department, the Hetch Hetchy Water & Power System, and the city's airports. (A separate commission for airports had its first meeting in September 1970.)

There were claims that along with its attempts to make city government more "businesslike," the new charter was also aimed at curbing the power of O'Shaughnessy, the person actually in charge of Muni and the \$100 million Hetch Hetchy project to get water and electric power for San Francisco from the Sierra Nevada. In fact, after the charter went into effect, "the Chief" (as O'Shaughnessy was known in city

government) was relegated to the role of consulting engineer until his death in October 1934.

May 15, 1932

The first day of service of the MSRY's 31 Balboa streetcar line, constructed because of the company's promise made during the November 1930 charter amendment campaign. (The line operated to Balboa & 30th Ave. As a Muni bus line, it was extended to Ocean Beach as part of the August 1979 route changes.)

The MSRY's 31 line was built in direct competition with Muni's B streetcar line on Geary and was the last entirely new streetcar line built in the city. (The B line had provided service from the Ferry Building to the ocean since June 1913. The A-line service on 10th Ave. was abandoned in December 1932 because of the competition from the 31 line.)

July 15, 1934

The city is unusually quiet that Sunday, and there are no streetcars on Market St., as S.F. and the rest of the Bay Area waits for the General Strike in the city, which is officially set to begin the next day.

The General Strike had been called to support the longshoremen's and maritime workers' strikes that had begun that May. The strikes had culminated in the violence of "Bloody Thursday" on July 5th, and that day's shooting deaths of two union men at Mission & Steuart Sts. (The July 9th funeral procession for the two men, on Market and Valencia from the Ferry Building, attracted a great deal of public attention.)

MSRY carmen went out on strike at 2 a.m. on Sunday in a dispute with the Byllesby management. The Muni carmen's walkout, however, was solely in support of the General Strike. (The head of the Muni carmen's union, Edward Vandeleur, was the chairman of the executive committee of the General Strike Committee.)

The General Strike lasted four days, from July 16th to the 19th. It also drew support from workers in the East Bay. Although the SP's ferries and electric trains continued to operate, the Key System's streetcars, electric trains, and ferries were shut down by that company's employees.

After a special PUC meeting on the first day of the General Strike, Muni carmen were forced to go back to work under the threat of the loss of their civil service status and pensions. On the strike's third day, MSRY president Samuel Kahn operated the first of a string of four streetcars to dramatize the company's efforts to restore service, but the MSRY strike was not over until the next week, when the company reluctantly agreed to an arbitration of the employees' grievances.

May 2, 1935

The ordinance requiring two-man streetcar operation is put into the city's charter as an initiative measure by a 99,707 to 34,076 vote.

The initiative was approved because of fears for public safety and labor's opposition to the loss of jobs. An advertisement for the initiative included the statement that the MSRY's "...Eastern owners...are trying to fool the people." Although public relations had greatly improved, the company's ownership by "outsiders" was still a cause for public distrust.

The MSRY operated some one-man streetcars from 1935 to 1939 after obtaining a temporary court injunction, but the company ultimately lost its federal court case against the two-man rule. The expense of two-man streetcar and cable car operation was an incentive for both the MSRY and Muni to convert two-man service to one-man motor or trolley bus operations.

Oct. 6, 1935

The first day of service on the MSRY's 33 18th and Park trolley bus line — the first trolley bus service in the city, with coaches bought from the J. G. Brill Co. The line was a conversion of the streetcar operation over Twin Peaks that had been in service since November 1894.

May 9, 1937

Key System bus service from the East Bay begins on the San Francisco-Oakland Bay Bridge. (The bridge had opened for vehicular traffic on November 12, 1936.)

July 6, 1937

The MSRY begins charging 2¢ for transfers. The state Railroad Commission (later renamed the state Public Utilities Commission) had allowed the extra charge for transfers after denying the company's request for a fare increase from 5¢ to 7¢.

May 29, 1938

The MSRY raises its fare to 7¢ and resumes issuing transfers without an extra charge. Revenue from the 2¢ transfers had reached expectations, but 5¢ fare riding had fallen off so much that there was no net increase in income, and the Railroad Commission allowed the 2¢ fare increase. (This was a considerable fare increase, causing a shift in ridership of about 20% from the MSRY to Muni.)

It was the first fare increase in the city since the fare was set at 5¢ in 1878. The fare had been in effect from a time when 5¢ for a ride on a short-distance horsecar or cable car line was more than a minor expense for many people, to a time when a nickel was a relatively cheap fare for service that went almost everywhere in the city. The fare had been kept the same by an unsympathetic public, despite costs

that had begun to rise after World War I and the dramatic increase in the competition and traffic congestion caused by the automobile.

Muni kept its fare at 5¢, and because of the Depression and competition from automobiles and Muni, the MSRY operated at a loss from 1932 through 1941, until greatly increased ridership caused by wartime employment and gas and tire rationing made it profitable once again.

Sept. 27, 1938 A proposition for a bond issue to fund the city's purchase of the MSRY is defeated at a special election, 52,680 to 93,979. (In that November's general election, a "declaration of policy" for the purchase of the MSRY lost by an even larger margin.)

Jan. 15, 1939 Muni and MSRY streetcar service begins to the Transbay Transit Terminal at 1st & Mission Sts., for connections with electric trains that had begun operating over the Bay Bridge that day to the East Bay and beyond. (The terminal has had various official names over the years. Unofficially, it was called the East Bay Terminal until the 1980s.)

The Key System, the Sacramento Northern Railway, and the SP's Interurban Electric Railway provided the train service on the bridge, although the Sacramento Northern and the SP abandoned their bridge service after only a few months. (From January 1939 until August 1940, Sacramento Northern electric interurbans could be taken from the terminal to the city of Chico, 183 miles away.)

Apr. 5, 1941 Last day of operations on the MSRY's Castro St. cable car line, on Castro between 18th and 26th Sts., and the Fillmore Hill streetcar counterbalance, on Fillmore between Green and Broadway, with the No. 24 motor bus line from Castro & 26th to Marina Blvd. beginning service the next day. (The bus line also replaced streetcar service on Divisadero between Page and Sacramento.)

The introduction of improved trolley buses and motor buses had made cable cars and counterbalances outmoded. The new 24 line offered good crosstown service, and at the time there were few expressions of regret over the loss of the "old-fashioned" cable and counterbalance systems, although they were later to be the subjects of reminiscences about "the good old days."

May 11, 1941 Motor bus service is substituted for the MSRY streetcar lines that had served the Kearny and 3rd Sts. corridor, from the North Beach and Northern Waterfront areas to Bayshore Blvd. & Sunnydale Ave. (Streetcars continued to provide rush hour service between Broadway and the SP depôt at 3rd & Townsend. In the spring of 1943, the rush-

hour service was replaced with a streetcar line that operated from North Point & Powell to the Union Iron Works at 19th & Illinois.)

This was the first major transit corridor to be converted to bus service, but the MSRY had already begun using buses for much of its night and Sunday service after acquiring 60 motor buses in 1939-40. There had also been complete abandonment of streetcar service on a few lines at that time, including the 19 Polk in June 1939. However, there were later restorations of some streetcar operations on those lines, in part because of the need to provide increased transit service during the war years.

The country's first motor bus transit service was begun by New York City's Fifth Avenue Coach Co. in September 1905, when it started testing the buses that replaced its omnibus fleet. However, the use of buses in U.S. transit systems for the first few years was primarily for "feeder" service to streetcar lines. Later, buses began to replace streetcars, and by 1940 there were more buses than streetcars in U.S. transit service.

Sept. 7, 1941

First day of service on the R Howard line, Muni's first trolley bus line, running from Beale & Howard, on Howard and S. Van Ness Ave. to Army St. (Cesar Chavez St.), with coaches built by the St. Louis Car Co. (The MSRY's franchise for the route had not been included in the company's 25-year operating permit; its streetcar service ceased operating on the route in January 1940, and Muni provided interim motor bus service beginning the next July.)

The line was on a route that had been served by the Omnibus Co.'s horsecars and cable cars. The route had not provided important service by any mode of transit or under any ownership, but the new line allowed Muni to offer nickel-fare competition only a block away from the MSRY's Mission St. lines in the inner Mission District.

Dec. 26, 1941

The first day of work for Muni's first black transit operator, Audley Cole.

The carmen's union was opposed to Cole's hiring, and it was three months before he was taught how to operate a streetcar. Spencer Rogers, the first man who tried to train him, was hospitalized after being severely beaten. Also, the union said there would be a penalty of \$100 for anyone willing to train him. As a result, 14 men were suspended by Muni management and threatened with charges for dismissal for refusing to train Cole.

A compromise was reached between management and the union when Wesley Mason, Muni's chief instructor, agreed to train him. (Six

Muni employees, including the union's president, William McRobbie, were very supportive of Cole in his efforts to become a motorman.) The opposition to his hiring largely vanished after he received his training, in part because he was very good at his job.

Cole received support in his attempt to become a Muni operator from civil rights organizations and newspapers, including the Communist Party newspaper, the Daily People's World. (Mason was at first wary of Cole because of the Communist support, but soon found out that he would be a good employee.) Newspaper columnist Herb Caen was the first to write about the story, after Rogers called him when Cole was first hired.

The carmen's union was an American Federation of Labor organization, and it was strongly condemned by the rival Congress of Industrial Organizations for refusing to accept Cole as one of its members. Cole was finally accepted into the union after the San Francisco Labor Council unanimously passed a resolution stating that discrimination was contrary to the principals of the American Federation of Labor.

Cole left Muni in early 1943 after he was drafted into the U.S. Army. However, blacks were hired at Muni in increasing numbers over the next several months, in part because of the labor shortage caused by the war. In early 1944 it was reported that Muni had 96 black persons working on Muni vehicles – 19 men and 13 women as motormen and women, and 60 men and 4 women as conductors.

Feb. 14, 1942 Although a Save the Cable Car League had been formed to protest the abandonment of service, this is the last day of service on the MSRY's Sacramento-Clay cable car line, with the No. 55 bus line beginning service the next day. (After the 1906 earthquake, the Sacramento-Clay line had run from The Embarcadero, on Sacramento St. to Fillmore, returning on Sacramento, Larkin, and Clay Sts.)

The protests were unsuccessful, but it was the first major outcry against the abandonment of a transit service that was a reminder of the city's historic past.

Feb. 29, 1944 The MSRY begins issuing a 1¢ refund coupon for each cash fare or token. The previous November, the state Railroad Commission had ruled that the company's fare should be reduced from 7¢ to 6¢. The MSRY appealed the decision to the state Supreme Court, and pending its decision, the court ordered the company to issue the coupons and set aside \$100,000 a month in case refunds were necessary.

(In the latter half of 1945, after the company's assets had been sold to the city, refunds were made to coupon holders if they were willing to go to the company's offices at 58 Sutter St. and make a sworn statement in writing that they were the original recipients of the coupons. There were claims for only \$12,000 of the \$700,000 "orphan penny" fund, and the Supreme Court ordered the remainder of the fund to be used for Muni improvements.)

May 16, 1944

With a vote of 108,621 to 84,078, the city's voters approve the acquisition of the MSRY for \$2 million in cash and \$5.5 million in future revenues. (Propositions for the acquisition of the MSRY had failed at the polls in November 1942 and April 1943.) Conditions of the sale stipulated that there would be no major changes in operation nor sale of former MSRY property until the final payment was made.

The U.S. Office of Defense Transportation had been calling for a standard fare, universal transfer rights, and the common use of transit facilities in the city to aid in the war effort. However, much of the credit for the voter approval in May 1944 was due to Mayor Roger Lapham, who campaigned vigorously for the proposition because of the city's need for a modern, comprehensive transit system.

Sept. 29, 1944

At 5 a.m., the city takes over the facilities and equipment of the MSRY and begins combined operations with a 7¢ fare. (That September, Muni's average daily passenger receipts were \$19,812, but the next month they jumped to \$48,908.)

Compared to 1912, 1944 showed a merged system with a considerable expansion of transit into isolated areas and the removal of some anachronistic service. But much of the MSRY was in poor condition because of "deferred" maintenance, and there had been charges that in its later years the company was more interested in paying dividends to its shareholders than maintaining adequate service for its passengers.

In addition to its numerous shops and car houses, the MSRY brought to the combined system 2,906 employees, 440 streetcars with 197 miles of single track, 38 cable cars with 6.1 miles of single track (the Powell-Mason and Washington-Jackson lines), 9 trolley buses on a 10.2 mile round-trip route, and 154 motor buses on about 110 miles of round-trip route. At the same time, Muni had 1,531 employees, 238 streetcars with 75 miles of single track, 9 trolley buses on a 6.8 mile round-trip route, and 107 motor buses on 63 miles of round-trip route.

Since the MSRy was far larger, and many of its operating and management personnel had come to Muni with the merger, some people came to wonder which system had acquired which.

Dec. 17, 1944

With two of the four tracks no longer in service between Valencia and Castro Sts., this is the first day of a gradual process of reducing the streetcar service on Market to two-track service.

On the same day, M Ocean View streetcar service was reinstated, running between the Ferry Building and Broad St. & Plymouth Ave. (M-line service had been discontinued in August 1939. At that time, it had been operating as a shuttle from Broad & Plymouth to St. Francis Circle, and had only operated to downtown from October 1927 to February 1928.)

Mar. 4, 1947

A Citizens' Committee to Save the Cable Cars is founded at a joint meeting of the S.F. Federation of the Arts and the California Spring Blossom and Wildflowers Association. The committee was formed in response to plans that had been announced for the conversion of the city-owned Powell lines to bus service, as part of Mayor Lapham's transit modernization campaign.

The leader of the cable car committee was a *very* determined woman named Friedel Klussmann.

June 8, 1947

Last day of streetcar service on the E line, with trolley and motor buses taking over service the next day and full trolley bus operation shortly thereafter. This was the first post-war conversion of a streetcar line to trolley bus service — the E-line conversion had been planned several years before, but had been delayed by the war effort.

(The E and R trolley bus lines were combined, and the new service was called the E Union-Howard. The E line was redesignated the 41 line in February 1949, a time when much of the Muni-MSRy consolidated service was renamed. The former R Howard section of the line was dieselized in 1971 and abandoned in 1983.)

The Muni-MSRy consolidation brought about many abandonments, reroutings, and extensions of service, but most of these were minor, and there was no overall plan to reverse the general decline in transit ridership in the city, which had resumed in S.F. (and the rest of the U.S.) after the war.

Nov. 4, 1947

Five bond issues are approved for transit and traffic improvements and the payment of the final amount owed to the MSRy.

Money raised from the bonds allowed for a wholesale conversion of streetcar lines to bus operations in the late 1940s and early 1950s. There was also some abandonment of service, including the January 1949 abandonment of the former MSRY No. 40 line (the descendant of the San Francisco & San Mateo Rwy.'s line to San Mateo County), which had provided suburban service to the city of San Mateo. These conversions were part of the general pattern of the conversion of most of the nation's streetcar service to rubber-tired operations, a continuation of the trend that had begun before the war.

Many of S.F.'s conversions were to trolley buses instead of motor buses, in part because of the "free" electricity from the city's Hetch Hetchy hydroelectric system in the Sierra Nevada. The conversions did not challenge the inherited pattern of service (some of it from horsecar and cable car days), although travel patterns had changed dramatically, both in the city and throughout the region.

These conversions occurred virtually without public hearings, since the city attorney's office had ruled that the substitution of one mode of service for another on the same route did not constitute abandonment of service — a ruling that remained in effect until it was overturned by an S.F. Superior Court decision in 1959.

In the same November general election, 77% of the voters approved a charter amendment mandating that the city maintain full service on Muni's Powell-Mason and Washington-Jackson cable car lines. (The Cal Cable lines were privately owned, and could not be protected in this manner). The city was forced to place this proposition on the ballot because of the public outcry over its attempts to replace its cable car service with motor buses. As with the streetcar conversions, the city had been trying to save money by converting from two-person to one-person operations, in addition to trying to provide more "modern" service.

- Mar. 21, 1949 Last day of streetcar service to the Ferry Building. Afterwards, all of the remaining Market St. streetcar lines operated on the 1st and Fremont Sts. loop to and from the Transbay Terminal.
- July 3, 1949 Five lines formerly served by MSRY streetcars begin trolley bus service on Market St. (Four of the streetcar lines had been converted to interim motor bus operation in June and July of the previous year, while the 8 Market line was converted directly from streetcar to trolley bus service.)

The day before had been the last day of four-track service on Market St., with the discontinuance of Sutter St. streetcar service from the Transbay Terminal.

- Nov. 7, 1949 The 76 Broadmoor line begins service, starting at San José Ave. & Flourney St. and operating on a route in Daly City and Broadmoor Village. (The 26 Valencia line had provided rush-hour service to Broadmoor Village from November 1947 to November 1949.) The 76 line was subsidized by housing developers, and it remained in service, in various configurations, until November 1955, when the subsidy was discontinued.
- Although the line was unusual in that it most of its service was outside the city, it was not the only Muni bus line that was funded by outside sources. For a time, starting in December 1925, Muni operated a subsidized line from Forest Hill Station to the Westwood Highlands housing development. (The developers even provided the buses.) Also, Muni bus service on The Embarcadero, which began in January 1927, was subsidized by the State Harbor Commission for several years.
- Nov. 8, 1949 A ballot proposition directing the city to buy Cal Cable with available funds is approved, with a maximum purchase price of \$150,000. The company was in serious financial difficulty in the post-war period because of rising operating costs.
- July 31, 1951 Last day of service of Cal Cable because of a failure to obtain insurance. The company filed for bankruptcy on August 13th of that year.
- Jan. 7, 1952 The city finally acquires Cal Cable's assets for \$138,785.57 after many months of negotiations. On January 13th, Muni began operations on the California St. line, the O'Farrell, Jones and Hyde line, and the Jones St. Shuttle from the company's car house at the southwest corner of California & Hyde.
- May 16, 1954 Last day of cable car service, despite the public's protests, on the O'Farrell, Jones and Hyde line, and on California St. between Van Ness and Presidio Aves. (The Jones St. Shuttle's last day of service had been on February 6th of that year.)
- June 8, 1954 Proposition E passes, approving the present system of cable car service. The proposition called for the service to be operated from the Washington & Mason car house, with a truncated California St. line, a line made up of parts of the Washington-Jackson and O'Farrell, Jones

and Hyde lines, and only the Powell-Mason line remaining on its full original route.

At the same election, the voters approved the one-person operation of any streetcar acquired after January 1, 1939. (The first one-person cars started service the next September 12th.)

Nov. 2, 1954

Proposition J is defeated, which would have returned cable car operations to their status as of January 1, 1954.

A "Public Service Director" had been hired by the PUC for the specific purpose of obtaining favorable public votes for the cutting back of cable car operations. A court verdict later ruled that he and PUC General Manager James Turner were liable for distortions in public statements and for the setting up of phony committees to "save" the cable car service, to mislead the public during the June and November proposition campaigns.

Sept. 1, 1956

Last day of service on the Washington-Jackson cable car line. (A public notice implied that service was to be stopped only temporarily "...due to the necessity of installing new track connections and cable installations at Hyde & Washington, and at Hyde & Jackson....")

Dec. 29, 1956

Last day of the B streetcar line on Geary, with only five streetcar lines — the Market St. lines J, K, L, M, and N — remaining in service. (It was also the last day of side-grip operation on the California St. cable car line from the California-Hyde car barn. The line was shut down for conversion to the bottom-grip operation that was used on the other cable lines, so that it could operate from the Washington-Mason barn.)

According to the 1959 court decision, abandonment of service on the B line, like the Washington-Jackson line, did not have the required public notification and hearings. Buses were substituted for streetcars on Geary in part because it was thought that streetcars and their tracks would interfere with plans for a widening of Geary to encourage auto traffic. (Plans for BART were under way, and it was also thought that there would be a rapid transit line on Geary. In the early 1970s, a proposal for BART service for the Geary corridor was rejected by Richmond District residents, who feared that the stations would encourage high-density development that was out of character for their neighborhood.)

There were later attempts to convert the five remaining streetcar lines into other kinds of operations, but as in other cities where streetcar service was saved, these lines were retained because the public was

opposed to their removal — the streetcars, often on their own right-of-ways, provided relatively fast, smooth, and reliable service.

Apr. 7, 1957 First day of service on the new Powell-Hyde line, made up of sections of the old Washington-Jackson and O'Farrell, Jones and Hyde lines. A turntable had to be put in at Hyde & Beach for the new line, since Hyde St. was to be served by single-ended Powell cars rather than double-ended California cars.

Dec. 22, 1957 Service resumes on the California St. line, making this the first day of full service on the present-day three-line cable car system.

(Roger Lapham has been criticized over the years for trying to eliminate the cable car lines when he was mayor, in 1947. However, the first cutbacks of the five remaining lines and the votes for a reduced system took place in 1954, during the administration of Mayor Elmer Robinson, and the cutback of the Washington-Jackson line and the consolidation of the system took place in 1956 and 1957, during the administration of Mayor George Christopher.)

Apr. 20, 1958 In the early morning hours, the last electric train operates on the Bay Bridge.

May 9, 1958 The last day in regular service of both "heavyweight" streetcars and of streetcars that have two-person crews, as car No. 181, which had been in service since 1923, operates on the L line.

It had taken almost four years to complete the process of converting from two-person to one-person streetcar operation — converting two-person PCC cars, acquiring used PCCs from St. Louis, and phasing out the remaining heavyweight cars.

Some of the last heavyweight cars had been purchased in 1913 and had been in service for over 40 years. (The heavyweight cars were not called "iron monsters" until they had almost disappeared from regular service.) After the heavyweight cars were phased out, the all-PCC service allowed streetcar schedules to be 16% faster.

Oct. 15, 1962 The beginning of a week of events celebrating Muni's 50th anniversary, including a streetcar shuttle service on Market St. provided by newly restored car No. 1 for a 5¢ fare.

Nov. 6, 1962 Alameda County, Contra Costa County, and S.F. voters approve a \$792 million bond issue for Bay Area Rapid Transit (BART) construction. The "yes" vote in Alameda and Contra Costa counties was less than the required 60%, and S.F. voters provided the margin

of approval for the bonds. Much of S.F.'s support was attributed to the fact that the BART proposal also included the construction of the Market St. streetcar subway that had been advocated for so many years. (Market St. subway construction for BART and Muni started in July 1967.)

The streetcar subway was originally supposed to continue as far west as St. Francis Circle, but that plan was killed by opposition led by West Portal merchants.

Jan. 29, 1964

The cable car system is designated a National Historic Landmark. The official ceremony was held that October 1st at Hyde & Beach, presided over by Chief Justice (and former California Governor) Earl Warren.

Although some people came to believe that the system was the only moving National Historic Landmark, it was not even the first. For example, the USS Constitution was designated a landmark in December 1960, and Colorado's Durango-Silverton Narrow-Gauge Railroad received the designation in July 1961.

Also in 1964, in a truly "only in San Francisco" story, a woman was injured when the Powell-Hyde cable car she was riding on was involved in an accident. She sued the city, and in 1970 won \$50,000 in damages based on her claim that the trauma from her injuries had caused her to become a nymphomaniac.

Spring 1967

Rerouting occurs on Haight St. lines until 1971 because of traffic congestion caused by the Haight-Ashbury's "flower children" and the people who come to look at them.

Apr. 9, 1968

Muni operator Martin Whitted is shot and killed in a robbery on a Muni bus, leaving a wife and three young daughters. More than 200 Muni operators reported in "sick" on the day of his funeral, April 15th, in protest over the lack of protection on Muni vehicles. (The operators who worked that day kept their vehicle headlights on, in honor of Mr. Whitted.)

This was the first time that a Muni operator had been fatally injured in the course of a robbery, but it was only one a series of assaults and robberies of Muni operators at that time. Muni operators were targets for robbery attempts because of the cash that was carried on the vehicles to make change for fare payers.

The robbery and murder were committed by four teenagers when the bus that Mr. Whitted was driving was in the Hunters Point area. Mr. Whitted was working overtime because many of the other operators

had taken off from work in memory of Martin Luther King Jr., whose funeral was held in Atlanta that day.

Two days after Mr. Whitted's death, his widow, Dixie Whitted, stated that donations to the Martin Whitted Memorial Fund were to be used for Hunters Point youth, because her husband "knew these young people and he liked them." The fund received over \$10,000 in donations, to be administered by the city's Human Rights Commission.

June 4, 1968

Proposition A, a \$24.5 million bond issue for Market St. reconstruction and improvement, is approved by the city's voters. The specific beautification plan approved by the Board of Supervisors called for the eventual removal of most of the transit service from the surface of the street east of Van Ness Ave., leaving only a Muni shuttle for local trips on the surface and BART trains and Muni streetcars running in the subway underneath. It took until 1978 for the board to acknowledge the importance of public transit on this major thoroughfare by allowing the retention of the overhead wires for trolley bus service.

Sept. 6, 1968

As of 7 p.m. that evening, Muni operators are no longer required to have cash on Muni vehicles to make change, and a passenger boarding a vehicle with a cash fare is required to have the exact amount. The order was signed by the Muni general manager after operator Russell Clark had been shot in a robbery attempt the night before. (Clark recovered from the shooting and returned to driving buses, until his retirement from Muni service.)

Apr. 21, 1969

Muni had made plans to scrap the J Church and K Ingleside lines, but Muni General Manager Jack Woods announces at a Board of Supervisors' meeting that all five streetcar lines would remain in service. (If the two lines had been abandoned, K-line tracks would have had to be retained so that L, M, and N line cars could operate to and from the Geneva car barn at Geneva & San José Aves.)

Muni's plans to abandon the service had been changed after the more than 200 people who attended a meeting in Upper Noe Valley had made it very clear that J-line streetcar service could not be eliminated without a major battle.

Woods and city Supervisor Jack Morrison, who was opposed to the J line's elimination, debated the question at the meeting. Although J-line streetcars would have been replaced by diesel buses, a major justification for the elimination of the streetcars was that many J-line riders would use BART when that service started. When asked by Morrison how people in the neighborhood would get to the BART

stations on Mission St., Woods replied that Muni would have to study the question — a response that did not go over well with the crowd.

May 6, 1969

The PUC adopts a Transit Improvement Program, and "an essential element of the program is the recommendation that all five streetcar lines be retained."

Planning for BART, and a Muni management preference for "modern" diesel buses and rapid transit, had led to various proposals in the late 1960s for the curtailment or abandonment of some of the streetcar and trolley bus service. (In one of the proposals, the Sunset Tunnel would have been paved for interim bus operation.)

However, many riders objected to the proposals, which would have replaced through-services with a system that forced riders to transfer from "feeder" buses to a rapid transit line. The public's strong preference for the electric services caused the PUC to affirm its support of the streetcar service at the May meeting, and of both streetcar and trolley bus service on November 25th of that year.

June 24, 1969

The first vehicles of a new fleet of General Motors Corporation diesel buses are presented to the public at a ceremony outside City Hall. The purchase was financed by the San Francisco Municipal Railway Improvement Corporation, a city-owned corporation that had been created the previous year to finance Muni capital improvements because the city's voters would not approve bond issues for Muni. (Federal and state funds did not become major sources for the financing of Muni construction projects and vehicle acquisition until the next decade.)

New buses were necessary to replace an aging fleet, but the GMC ("Jimmy") buses were unpopular in the city's neighborhoods because of their noisy braking systems (which were subsequently modified) and engines.

Dec. 2, 1972

Last day of streetcar service on Market St. between Church and Castro Sts., as the cars are rerouted on Duboce Ave., Church, and 17th St. to the Twin Peaks Tunnel because of Market St. subway construction. (Inbound streetcars continued to run on Market between Church and Duboce for a few more months.)

The tunnel's Eureka Valley Station (which had stairways at Eureka & Market Sts.) had been closed earlier that year. A new streetcar portal was constructed at the site of the station, so that the cars could make the connection to the tunnel from 17th St.

Mar. 19, 1973 The Board of Supervisors adopts a resolution "declaring that Municipal Railway vehicles and other transit vehicles be given priority over other vehicles on San Francisco streets." However, the city's "Transit First" policy became a cause for bitter humor among transit advocates because of the policy's lukewarm implementation and enforcement.

(The statement that "transit-first is, has been, and continues to be the policy of the City and County of San Francisco" was made part of the city charter in November 1988, when the city's voters approved the creation of the Department of Parking and Traffic.)

Aug. 2, 1973 Several days of events commemorating the centennial of the cable cars begin with a 5 a.m. celebration at Portsmouth Square — a celebration highlighted by Clay St. Hill car No. 8 and some riders being carried on a flatbed truck down the hill from Clay & Jones to the square. Later that morning, there was a procession of decorated Powell cars from the car barn to Aquatic Park and a ceremony at the park.

The celebrations were originally going to begin on August 1st, but the day was changed after research by local historians determined that August 2, 1873, was the first day of cable car operation.

Nov. 5, 1973 BART begins service between the Montgomery St. and Daly City BART stations. Construction for BART, including the Market St. subway for Muni streetcars, caused major disruptions of transit and other traffic on Market and Mission Sts.

Between the Glen Park and Daly City stations, the BART line had been constructed on the original route of the SP's Peninsula service. Although this route meant cheaper construction costs for BART, it also meant that BART stations on the route were constructed to the west of the heavily populated outer Mission St. corridor.

May 1, 1974 Muni's Fast Pass (adult monthly pass) is in use for the first time. (A Senior Pass began being used in October of that year, and a Youth Pass in October 1982.)

Sept. 16, 1974 First day of BART transbay service.

BART service from the East Bay to its San Francisco stations changed the patterns of transit use for the riders who had formerly used AC Transit and had transferred to Muni at the Transbay Terminal. BART service and increased insurance costs were the major factors in eliminating the jitneys that had run on Mission St. and had served

outbound commuters from the Transbay Terminal and inbound commuters from Mission District neighborhoods.

1974 A planning department is started at Muni. (Prior to this time, planning had been done by Muni's schedules department.)

1975 The new planning department was funded by state and federal funding, and was created largely in response to the federal government's mandate to develop an annually updated 5-year plan that would evaluate route design, operations, and passenger vehicles on the basis of service standards that the city would determine for its own system. The federal government insisted on a comprehensive plan so that it could see that federally funded projects were part of an effectively designed, coherent system.

Mar. 31, 1976 City craft workers go out on strike, and Muni operators honor the picket lines, shutting the system down until an agreement ending the strike is signed at 9 a.m. on Sunday, May 8th.

May 27, 1976 The Embarcadero Station is opened for BART service. The station had not been part of the original plans for BART, and funds for the construction came from BART and the city's Golden Gateway redevelopment project.

The Muni streetcar terminal in the subway was constructed as a stub-end terminal in the Embarcadero Station, rather than the loop turnaround that many transit advocates believed would have allowed better service.

June 30, 1977 The draft final report of the Planning, Operations and Marketing (POM) Study is completed — the recommendations of a private consultant, working in conjunction with Muni, for a 5-year plan.

The study presented a thorough analysis of the Muni system and its shortcomings in relation to the travel needs of people in San Francisco. A key element of the study was an "on board" survey, begun in March 1975, of over 130,000 Muni weekday riders. Route deficiencies were outlined, and it was pointed out that although over 70% of Muni's service operated to or through downtown, 2/3rds of all trips made by city residents were to and from areas other than the central business district. Further, there was poor spacing of routes, with duplicative service in some areas and gaps in others, leaving some parts of the city relatively isolated.

The POM Study made several recommendations to improve the efficiency and usefulness of Muni operations. A major

recommendation was that Muni implement a modified "grid" route system to improve crosstown service, so that most riders would be able to get from any part of the city to any other with no more than one transfer.

Other proposals were that Muni should redistribute its duplicative service to where it was most needed, and provide "feeder" service to BART and Muni Metro (as Muni's planned surface-and-subway streetcar system had come to be called). Also, it was proposed that shorter routes be converted into longer ones, providing better through-service, offering improved transfer opportunities, and reducing the number of time-consuming terminal loops.

Because of the city's financial constraints, all of the recommendations in the study had to be accomplished without any increase in hours of operation. (Increased funding was provided for Metro operations, but the basic plan was for an adjustment of service, not an increase.)

Aug. 18, 1977

The first of over 70 public outreach meetings is held by Muni's planning department to present the POM Study recommendations to community groups, merchants' associations, and Muni employees. The extensive public outreach campaign also included workshop meetings held in February and March of 1978 in each of the 11 Board of Supervisors' districts. (Supervisors were elected by district between 1976 and 1980.)

The study and the public's reaction to it were the subjects of intensive analysis by Muni staff, led by the planning, operations, and schedules departments. The POM Study recommendations were then revised to become Muni's first 5-Year Plan, the major purposes of which were to give the public shorter travel times and better regional transit access — improved service that would increase Muni's ridership. (As of 1983, the plan's title was changed to the Short-Range Transit Plan.)

Apr. 10, 1978

Mayor George Moscone, Mrs. Klusmann, and other dignitaries ride newly refurbished cable car No. 60 from California & Market to a luncheon at a Nob Hill hotel — one of the major events of the festival on April 9th and 10th marking the centennial of the California St. line.

Apr. 3, 1979

The PUC approves the first 5-Year Plan as a policy statement and adopts the first phase of the service changes, after five neighborhood evening hearings. The changes in existing routes necessary to implement the first phase were later unanimously approved by the Board of Supervisors. (Although the commission could approve new routes, any kind of abandonment of service had to be sent to the Board of Supervisors.)

Most of the PUC commissioners during this time of major service changes had originally been appointed by Mayor Moscone, and the commissioners were especially sensitive to neighborhood concerns.

Apr. 27, 1979

New Metro streetcars (light rail vehicles or LRVs) begin a free weekday shuttle service on the K line between the Balboa Park BART Station and West Portal, which operates until the next February. The cars were built by Boeing Vertol, a subsidiary of the Boeing aircraft company.

Boeing had been the low bidder in a joint Boston and San Francisco purchase order, with vehicle specifications developed under the direction of the federal government in an attempt to establish standards for a U.S. Standard Light Rail Vehicle. (The city had little alternative to becoming a partner in the purchase order, since new streetcars were needed and much of the funding was being provided by the federal government.) Compromises had to be made in the design of the cars so that they could operate in both cities. For instance, the ends of the cars had to be tapered for use in Boston's subway, which meant that the front doors could not be used at Metro station platforms.

The cars had many design problems, and the list of modifications that were necessary before the cars would be accepted by Muni ran to several hundred items. (Muni obtained 100 cars in its original order and 30 in 1983-84 that had been intended for Boston. Because the LRVs could not accelerate as well as the PCCs, additional LRVs were needed to compensate for their slower running times in making the many starts and stops on the surface.)

May 1, 1979

Streetcar No. 3557, from Hamburg, Germany, is displayed in front of City Hall. The car had been donated by the city of Hamburg and brought to San Francisco, largely through the efforts of Maurice Klebolt, for service on an E Embarcadero historic streetcar line, which had been proposed by Muni in its first 5-Year Plan. (There were no immediate plans for any sort of historic streetcar service, and the car languished for several months at the streetcar yard at Geneva & San José Aves.)

Market Street Railway car No. 578 had been restored for the 50th anniversary of the 1906 earthquake and fire, in 1956, and Muni's car No. 1 had been operated on Market Street for Muni's 50th anniversary in 1962. However, No. 3557 was San Francisco's first international streetcar, and Klebolt was an indefatigable advocate of full-time historic streetcar service in the city.

Aug. 29, 1979 Phase 1A of the Five-Year Plan is implemented. Most of the changes were to routes between the Richmond District and downtown.

The plan's service changes were done in phases, and some of the route changes were interim ones, because of the need to wait for the full implementation of Muni Metro and the planned conversion of some lines from diesel to trolley bus service. Each phase was separately evaluated, modified where necessary, and approved by Muni management, the PUC, and the Board of Supervisors (for service abandonments), after well-publicized neighborhood meetings and hearings.

The proposed changes were sometimes controversial. At one PUC hearing in the Sunset, a commissioner left the auditorium for a few minutes in disgust at the public's rude behavior, and at another, the police were called because it was feared there would be violence.

Feb. 18, 1980 Weekday Metro service begins on the N Judah line, with the new light rail vehicles operating in the subway beneath Market St. (From February 11th through the 15th, there had been a free weekday shuttle service from 10 a.m. to 3 p.m. in the subway between the Embarcadero and Van Ness Ave. stations.)

Although "Muni Metro" and "light rail vehicle" were new terms, many people thought the new service was a modernization of the old streetcar system, not something entirely new, and they called the new vehicles "streetcars," just as they had the old ones.

Apr. 1, 1980 Muni's adult fare is increased (from 25¢ to 50¢), and its fare structure is greatly simplified. For instance, Express and Shoppers' Shuttle fares were discontinued, and disabled persons were allowed to purchase the monthly pass that was previously only available for the elderly. (The Shoppers' Shuttle bus service was discontinued in September of that year.)

The fare structure was simplified because the special fares were seen as interfering with the 5-Year Plan's goal of making it as easy as possible for riders to use Muni's service. The simplification measures were also strongly influenced by the introduction of Muni's monthly passes, which had made the special fares obsolete for frequent users of Muni.

Apr. 16, 1980 Full service is restored on the cable car system after it had been shut down the previous fall. Although operations were resumed, it had

become clear that the entire system was badly deteriorated and would need major rehabilitation.

- Aug. 30, 1980 PCC streetcar service is extended on the M line from Broad St. & Plymouth Ave. to the Geneva car house at Geneva & San José Aves., after tracks had been laid the short distance on Broad and San José. It had taken until this time for the extension to be made, even though prior to the extension, an M car had to travel on K line tracks from the Geneva Ave. facility to St. Francis Circle before beginning service on its own route. (The Geneva car house had been constructed in 1900-01 for the San Francisco & San Mateo Electric Rwy. and had been acquired by Muni when the city purchased the MSRy in 1944.)
- Sept. 10, 1980 Phase 1B of the 5-Year Plan is implemented. This phase included the extension of the 19 Polk to India Basin, the conversion of the 42 into the Downtown Loop line, and the beginning of service on the 43 Masonic and 44 O'Shaughnessy as major crosstown lines — the 44 was not named "O'Shaughnessy" merely because it ran on O'Shaughnessy Boulevard.
- 43 and 44 service at Forest Hill Station saw the implementation of "timed transfer" operations as part of the 5-Year Plan service improvements. Buses on those lines were scheduled to wait a few minutes for each other at that location during the less frequent service hours of the evening and early morning, giving passengers better assurance that they would have an easy connection from one line to another.
- One of the more controversial 1B service changes involved the 10 Monterey line. Prior to 1B, the line had turned northward from Monterey Blvd. at Plymouth Ave., to Forest Hill Station, Golden Gate Park, and California St. Under 1B, it was rerouted westward to St. Francis Circle and then on Sloat Blvd. to the beach, and some St. Francis Wood residents had objected to having the bus line operate through their neighborhood.
- Dec. 17, 1980 The K, L, and M lines begin full weekday Metro service. The K line had begun weekday LRV service for all three West-of-Twin-Peaks lines from St. Francis Circle to the Embarcadero Station on June 11th of that year, with LRVs, PCCs, and buses providing the service on the three lines west of Twin Peaks, in various configurations, until December.
- Apr. 18, 1981 Muni car No. 1 provides free Market St. streetcar service between the Transbay Terminal and 11th St. from noon to 5 p.m. that Saturday.

At a news conference the day before, PUC General Manager Richard Sklar, in response to reporters' queries, informed Muni staff and the gathered reporters that the streetcar would be run on Market St. on weekends that summer.

The news conference (which began in front of the Transbay Terminal and included a ride on car No. 1) was held to brief reporters on the Market Street Urban Initiatives Planning Study that would start later that year. The issues that the study addressed included the feasibility of operating full-time historic streetcar service along Market St. and The Embarcadero to Fisherman's Wharf. (Full-time historic streetcar service on Market St. had first been proposed by Gerald D. Fox in March 1971.)

June 17, 1981

The J Church line begins weekday Metro service, the last of the streetcar lines to do so.

On the same day, transfer rules were changed to allow travel in any direction for up to 90 minutes. (In an effort to decrease transfer fraud, as of May 3, 1986, the transfer was changed to a two-part transfer usable for two transfers in any direction within the 90-minute period.)

The transfer rules from November 1974 to June 1981 had allowed for travel in one general direction, with stop-over privileges, for up to two hours and 20 minutes. Before November 1974, Muni had very strict transfer rules, with passenger transfers allowed only at certain transfer points for travel in one direction.

The gradual liberalization of transfer rules showed a change in attitude from one of trying to obtain as much fare revenue as possible to one of encouraging as much transit use as possible for a single fare, in competition with the automobile. The new rules not only made Muni more convenient for the public, but also made transfer-rule enforcement easier for Muni vehicle operators.

October 1981

So many diesel buses are disabled because of age and "deferred" maintenance that PUC General Manager Sklar has an 11" x 17" notice with an apology to riders placed in Muni vehicles. The apology was signed by Sklar and included his statement that "I accept full responsibility for this situation."

Service later improved because of much better preventive maintenance programs, the rehabilitation of some of the old vehicles, and the acquisition of new ones.

Nov. 3, 1981 A charter amendment is approved allowing cable car fares to be higher than bus and streetcar fares, overturning a charter provision in effect since November 1971.

The adult cable car fare was made higher than the adult fare for other regularly scheduled services as of April 1982. (Fares for ballpark service and other special events are higher than fares for regularly scheduled Muni services.) The youth cable car fare was made higher than the youth fare for other regularly scheduled services as of January 1986, and the elderly and disabled cable car fare was made higher as of August 1992.

While some saw this as a good way to collect extra money from tourists, others saw it as a further degrading of the cable car system from an integral part of the city's transit system into the "tourist attraction" that Mrs. Klussmann and others had spoken out against.

Dec. 16, 1981 The 55 Sacramento diesel line is converted to trolley bus operation. This was the first of the planned conversions of diesel to trolley bus operations that were part of the 5-Year Plan. The service was supposed to begin the next month as part of the 1 California line in the Phase 2 service changes, but the trolley buses were rushed into service because of the severe diesel bus shortage.

The conversion highlighted the hill-climbing abilities of trolley buses, since diesel buses on the 55 line were legendary for not being able to make the steep grade going west on Nob Hill with a full load of passengers. The 55 had been in service since February 1942, after the MSRY had converted the Sacramento-Clay cable car line to motor bus operation. Thus, the new trolley bus line was running over much of that cable car route and that of its predecessor, Hallidie's Clay St. Hill RR.

Jan. 27, 1982 Twenty-seven lines are affected as Phase 2 of the 5-Year Plan takes effect. Changes included the combining of the 1 California and the 55 Sacramento lines into the new 1 California, the extension of the 24 Divisadero diesel line to 3rd St., a major reroute of the 28 19th Avenue line, and the creation of the 29 Sunset as a major crosstown line.

Also, the 45 Greenwich diesel line was converted to 45 Union-Van Ness trolley bus service because of Muni's diesel problems. The conversion was an "experimental" measure that was subsequently made permanent.

June 9, 1982 Self-service cable car ticket machines are put into service at Powell & Market, making fare collection more convenient for both passengers

and cable car conductors. (A one-day pass good for all of Muni's regularly scheduled service was also made available at the machines.) The machines were later installed at the other cable car terminals and at California & Powell.

These machines were seen as a possible precursor to the use of off-vehicle self-service fare machines for other Muni lines, since pre-payment of fares had proven to be quite successful for other transit systems, especially in Europe. (Proof-of-payment fare systems are also used on light rail systems in the U.S., including those in Portland, Sacramento, San José, Los Angeles, and San Diego.)

June 16, 1982

As part of Phase 2 of the 5-Year Plan, the outer parts of the 1X California and 31X Balboa Expresses, and the southern part of the all-day 30X Freeway Express during rush hours and in the rush hour direction, are split into A and B zones, with a line's buses designated to serve one zone or the other, and share the stops in the downtown area. (There had been 38 AX-BX Geary Express service since the Phase 1A service changes.)

After the service was instituted, passengers had more direct access to and from their own zone without having to compete with the other zone's passengers for space on a bus. Thus, service was faster and line capacity was improved without the necessity of having to increase the number of vehicles.

July 3, 1982

Fourth-of-July-weekend historic streetcar service is provided on Market and Church Sts. by car No. 1 and by No. 178, on loan from the Bay Area Electric Railroad Association's Western Railway Museum. The streetcar service was continued on weekends and holidays through Sunday, Sept. 19th.

Sept. 19, 1982

The last day of weekend PCC streetcar service, with buses taking over on weekends until full seven-day Metro service commences on November 20th.

Sept. 21, 1982

The last day of cable car service until June 1984 because of the Cable Car System Rehabilitation Program, which started the next day. The entire system was reconstructed to make it as safe as possible, while retaining the cable and grip propulsion system that made it unique. Sixty-nine city blocks were involved, as old track and cable channels were removed and replaced. The Washington-Mason car barn was completely rebuilt, except for the chimney and exterior walls, which were retained (and reinforced) so that the building's traditional appearance could be preserved.

- Apr. 1, 1983 Muni's adult monthly Fast Pass is usable on BART within the city for the first time. The privilege was not extended to riders at the Daly City Station because it would have subsidized San Mateo County riders, whose taxes were not paying for BART or Muni service.
- Apr. 12, 1983 The PUC approves the use of contingency funds from the rehabilitation program for restoration work on the cable cars. Concerns had been raised that at the time a major program for cable car trackway and carbarn reconstruction was under way, the fleet would not be receiving a comparable amount of resources for its rehabilitation.
- Eleven California cars and twenty-six Powell cars were painted and otherwise refurbished. The cars were repaired by Muni's carpenters, were re-wired for 12-volt battery systems, and had sheet-metal reinforcements for their sides and end-pieces installed. Also, the emergency brake on the cars was modified, and the trucks and axles were completely rebuilt.
- June 24, 1983 With a parade of historic streetcars from several countries, a Trolley Festival is started on Market St., in part to give visitors an alternative to the cable car system, which had been shut down for rehabilitation. (The festival was also called the Historic Trolley Festival.)
- The Festival provided service every 15 minutes, Thursdays through Mondays, between the Transbay Terminal and Castro & Market, from 9 a.m. to 5 p.m. on weekdays and 11 a.m. to 7 p.m. on weekends and holidays. The five-day-a-week service continued through September 26th, but there was service for several weekends after that.
- Aug. 24, 1983 Phase 3 of the 5-Year Plan goes into effect. Included in this phase were the electrification of the 24 line and the implementation of 49 Van Ness-Mission service. For the first time, riders from the southeastern part of the city did not have to make a transfer for service along Market St., with the start of the service provided by the new 9 San Bruno line.
- May 30, 1984 Sixty-foot articulated (bend-in-the-middle) Maschinenfabrik Augsburg-Nürnberg A. G. (M.A.N.) diesel buses begin service in S.F. These buses and the new forty-foot Flyer buses began replacing a deteriorated fleet and helped to provide more reliable service for Muni passengers.
- The new Flyers and M.A.N.'s were fully accessible vehicles. Muni's Accessible Services Program (Elderly & Handicapped Program) had started in 1979, and 1980 saw the opening of the accessible Metro stations and the acquisition of 25 accessible Grumman Flexible buses. However, the Grummans had unreliable wheelchair lifts, and in many

ways, 1984 saw the real beginning of Muni's accessible vehicle program.

June 7, 1984 The 1984 Trolley Festival begins with a "Parade of the Past" on Market St. Service continued through Oct. 1st, Thursdays through Mondays, from 10:30 a.m. to 6:30 p.m. There was service every 9-12 minutes between the Transbay Terminal and Castro & Market, with some of the streetcars operating to Judah St. & 30th Ave.

June 21, 1984 After celebrations earlier that month for the return of California St. and Powell-Hyde service, the return of full cable car service is celebrated by festivities that begin with a ribbon-cutting ceremony at Union Square and a parade of cable cars up Powell St. led by a U.S. Marine band. (Mrs. Klussmann rode on the second car in the parade.)

The system had to be ready for service at the beginning of summer because the city wanted the cable cars to be operating at the time of the Democratic Party's convention, which was held in S.F. that year.

The Committee to Save the Cable Cars raised \$10 million in private donations for the system reconstruction, and there was local, state, and federal government funding amounting to \$53.5 million. Over \$4 million was spent on the cars, in addition to the amount spent on the trackway and barn, giving a total cost for the rehabilitation of about \$67.5 million. (Work was also done on the streets, sewers, and water lines in the construction area, so that the costs were actually around \$100 million.)

July 1984 A timetable booklet showing the schedules for all Muni lines is published for the first time, allowing riders to plan trips and check schedule adherence with more accuracy than with a frequency guide.

Muni had previously published timetables for individual lines, after Muni operator Richard Morley had had some published on his own in 1972. But the booklet, while bulkier than an individual timetable, gave riders information not only for the line that they were originally intending to travel on, but also for transfer or alternative service.

Aug. 12, 1984 At about 4:40 p.m. that Sunday, an automobile speeds down the hill and slams into the front of cable car No. 12 heading up Hyde St. from Aquatic Park, causing it to roll backwards, out of control. Despite their injuries, gripman Ray McCann and conductor Charles Gerstbacher applied the emergency slot brake and stopped the cable car after a block and a half.

The auto driver was killed in the crash (which was later ruled a suicide), but only three of the cable car's 65-70 passengers required hospitalization. Although the front of the auto was smashed, the cable car was not badly damaged. The two cable car crew members were honored by the U.S. Department of Transportation for their heroism, and the cable car and its crew passed this unplanned test of the safety of the newly rehabilitated system in the finest possible manner.

May 23, 1985

The 1985 Trolley Festival begins seven-day service on Market St. between the Transbay Terminal and Castro & Market. It provided service every 10 minutes from 11:00 a.m. to 6:30 p.m. through Oct. 15th.

For the first three years, the Trolley Festival was a joint project of the city and the S.F. Chamber of Commerce. (For 1984, the Bay Area Electric Railroad Association was also a partner in the project.)

Aug. 7, 1985

Four lanes of bus operations are introduced on Market St.

For this new service, a second set of overhead trolley bus wires had been installed along several blocks of Market, allowing two lanes of diesel and trolley bus service in each direction (as well as Trolley Festival service when it was in operation), with some bus lines making stops at islands, and others at the curb. The four lanes allowed for more transit vehicles on the street, and faster service. (Additional island stops were put into service on October 2nd of that year.)

May 5, 1986

In a major alteration of a major route, the weekday 30X Freeway Express is split into the 30X Marina Express, providing rush hour service in the rush hour direction between the Marina and the financial district, and the 9X (9X-9AX-9BX) San Bruno Express, providing all-day service to and from downtown on the southern portion of the old 30X route.

The northern terminal of the 9X was originally intended to be near Market St., but service was extended farther north because of a desire of the large Asian community in Visitacion Valley for direct service to Chinatown.

May 19, 1986

The 1986 Trolley Festival begins, operating between the Transbay Terminal and Castro & Market, and providing 10 minute service from 11:00 a.m. to 6:30 p.m. on weekdays through October 17th.

Oct. 25, 1986

In a tribute to the woman who saved the cable cars, cable car crews are ordered to stop the cars for one minute at noon that Saturday, at

the time a memorial service for Friedel Klussmann is to begin. Mrs. Klussmann had died the previous Wednesday at the age of 90.

Apr. 15, 1987

Market Street Railway streetcar No. 578, built in 1895, provides service on The Embarcadero through April 19th, in conjunction with a fair sponsored by the California Railroad Museum. The streetcar ran on the railroad tracks and was powered by a portable generator on a trailer. The car was only supposed to operate for a couple of blocks on The Embarcadero north of Battery St., but it eventually ran to Jefferson & Taylor at Fisherman's Wharf.

May 16, 1987

The 1987 Trolley Festival begins service after a parade of historic streetcars on May 14th. The 1987 Festival provided 10 minute service between the Transbay Terminal and Castro & Market on weekdays and Saturdays through October 16th. Hours of operation were from 10:30 a.m. to 5:20 p.m. on weekdays and 11:30 a.m. to 6:20 p.m. on Saturdays.

This was to be the last of the summer Trolley Festivals. The festivals ended because of the Market St. reconstruction that was to start the next year and because of the city's budget problems, which would begin to have an impact on Muni service starting in the 1987-88 fiscal year.

The 1986 and 1987 Festivals received support from the Market Street Railway Company, a non-profit group dedicated to the acquisition, restoration, and operation of historic transit vehicles in S.F. (The group had been founded in 1976 and had become a dues-paying organization in 1985.) After the series of festivals ended, the group helped with the funding of historic streetcar service on holidays, worked on historic transit vehicles at Duboce Ave. & Market St. (the "Mint Division" or "Duboce Yard"), and lobbied the city to provide full-time historic streetcar service on Market St. and The Embarcadero to Fisherman's Wharf.

May 24, 1987

Muni and other local transit agencies had been told to plan for a crowd of upwards of 50,000 for the Golden Gate Bridge Walk as part of the day-long celebration of the bridge's 50th anniversary, but by 4:30 a.m. that Sunday morning, Muni is overwhelmed by the numbers of people attempting to get to the bridge. Muni operations personnel were called in to work overtime, additional service was requested from the other transit agencies, and even Muni instructors, and mechanics with bus driver's licenses, were pressed into bus-driving duty for the day's events.

The Golden Gate Bridge had actually opened on May 27, 1937, for pedestrian traffic, and the next day for vehicles, but the anniversary celebration was held on the 24th because that was the middle day of a three-day Memorial Day weekend.

Muni and the other agencies were criticized for not providing enough service, but the actual number of people attempting to walk on the bridge from both sides of the Golden Gate was estimated to be 850,000, and it would have been impossible for the transit agencies to handle crowds of that size, even with a better forecast of the numbers who would attend the celebration.

Sept. 11, 1987 Market Street Railway streetcar No. 578 and Portuguese car No. 189 begin portable-generator operation on The Embarcadero between the Ferry Building and Pier 39, on Fridays and Saturdays through mid-October, with private funding.

The service was quite successful, and was seen as a possible precursor to full-time historic streetcar service on Market and The Embarcadero to Fisherman's Wharf.

Oct. 16, 1987 The first transit shelter in a new transit shelter construction and maintenance program is dedicated in front of the War Memorial Veterans Building at the corner of Van Ness Ave. & McAllister.

Although the city had maintained some benches at bus stops, and there had been an attempt at a comprehensive transit shelter program in the 1970s, under which a few shelters had been put up, this program was seen as potentially more successful, since the shelters were to be built and maintained under a contract with an advertising agency that would be allowed to have commercial advertisements in the shelters in areas where that kind of advertising was permitted.

Dec. 28, 1987 Between rain showers, Muni's 75th anniversary is celebrated by a parade of historic streetcars and buses on Market St., a performance by the St. Mary's Chinese Girls' Drum & Bell Corps at Powell & Market, a walk led by lion dancers up Powell, and a ceremony and entertainment at Union Square. The festivities were attended by four former Muni general managers, including 100-year-old Bill Scott, who had begun working for the city in 1913 and was Muni's general manager from 1940 to 1951.

Feb. 6, 1988 Mid-day service reductions amounting to \$950,000 in budget savings take effect on twelve lines in the Off-Peak Service Reduction Program. (Mayor Dianne Feinstein had mandated that service cuts not affect rush-hour service.)

But there was cause for a celebration that Saturday, with the extension of the No. 33 trolley bus line from Haight St. to Sacramento St., giving riders better crosstown service between the Mission and Richmond districts, and better service to S.F. General, St. Mary's, and Children's hospitals. The extension was celebrated with a parade of historic trolley buses, and ceremonies at Ashbury & Haight, St. Mary's Hospital, Arguello Blvd. & Clement, and Children's Hospital.

Mar. 28, 1988 The city celebrates the 100th anniversary of Powell St. cable car service with a parade of cable cars from the Washington & Mason car barn to Union Square, and a ceremony and entertainment at the square. The parade and entertainment were highlighted by the performance of the U.S. Navy Band from Treasure Island.

Sept. 3, 1988 After having provided 24-hour service for several years, the hours of Muni's Telephone Information Center are reduced to 6 a.m. to 10 p.m. on weekdays and 8 a.m. to 10 p.m. on weekends. (Later budget cutbacks reduced the Center's hours even further.)

Oct. 1, 1988 Twenty-three lines have changed routes, reduced service frequency, cutbacks in hours of service, or service eliminated altogether, as major service reductions totaling \$4.5 million in budget savings take effect.

Some of the changes were actually beneficial, such as the conversion of the 45 Union-Van Ness into the 45 Union-Stockton and the extension of the 10 Monterey (renamed the 23 Monterey) to provide crosstown service from 3rd St. to the ocean. Unlike the 5-Year Plan service changes, the cost savings in the changes were simply lost to Muni, instead of being available to improve service where it was most needed. (Maintenance and street inspector positions were also eliminated because of that year's budget cuts.)

The POM Study had pointed out that the 3rd St. corridor was relatively isolated, and after the route and schedule restructuring of the 1980s, that corridor had much improved service. For instance, in 1979, the intersection of 3rd St. & Palou Ave. was served by the 15 line and by the 51 Silver that only went as far west as the Glen Park BART Station on weekdays and Mission St. on weekends. As of October 1988, 3rd & Palou was served by the 15, the crosstown lines 23, 24, and 44, and the community-service 54 line that went as far west as the Daly City BART Station seven days a week. (As of June 1992, the 15-line Owl service has been replaced by the 91 Owl.)

Oct. 7, 1988 A memorial service for Maurice H. Klebolt is held at 6 p.m. at the Mint Division. A travel agent, critic of Muni management, and part-time

Muni operator, Mr. Klebolt was not a person who generated universal admiration, but without question he had been a major force behind the city's Trolley Festival and the acquisition and operation of historic streetcars in the city.

June 14, 1989

Muni introduces its one-day and three-day Passports, allowing unlimited trips on Muni's regularly scheduled service (including the cable cars), discounts for service to the ballpark, and discounts at visitor attractions, such as the city's Fine Arts Museums, the Exploratorium, and places in the Fisherman's Wharf area. (A seven-day Passport was introduced in July 1991.) The Passports proved to be quite successful, encouraging visitors to use transit instead of automobiles, and providing a good source of revenue for the city.

Oct. 17, 1989

On Tuesday at 5:04 p.m., a major earthquake hits the Bay Area. Muni was quick to respond, but was at first hampered by the disruption to its electric power supply and the fact that many of its diesel buses and their drivers were needed at Candlestick Park to serve the people who had been expecting to see the World Series game between the Giants and the A's. (It would have been the third game of the series, and the first at Candlestick.)

Muni employees worked through the night, and an estimated 65% of Muni vehicles were in operation for the next morning's rush hour (although many riders had elected to stay home that day). Most of Muni's service was restored by Thursday morning (an estimated 92%), with only some of the service in the Marina suffering any long-term disruption. Cable car service resumed on Thursday afternoon, and had only had to suspend operation because it was unsafe for the cars to operate when the city's traffic signals were without electricity. (Some of the cable car stops are in the middle of intersections, and signal pre-emptions are needed to stop cross-street traffic.)

Nov. 7, 1989

San Franciscans approve Proposition B for a one-half cent sales tax, to be collected for 20 years, for transportation improvements. 60% of the estimated revenue of \$902 million was planned to be used for transit, 30% for streets and traffic safety, 8% for paratransit, and 2% for Transportation Systems Management projects, such as transit preferential streets, bicycle accessibility, and downtown pedestrian projects. Prop. B money was only to be used for capital improvements, with funding for transit operations and maintenance limited to the increase in costs that were a direct result of those improvements.

The members of the Board of Supervisors were designated the San Francisco County Transportation Authority, which would have its own staff and executive director, to oversee the sales tax expenditures.

Nov. 16, 1989

The restoration of the Bay Bridge after the earthquake is celebrated with a bridge walk and a ceremony on the bridge, east of Yerba Buena Island. Muni buses were used to take people on the San Francisco side of the bridge to and from the east side of the Yerba Buena tunnel, and the sight of Muni buses parked in rows in the Transbay Terminal and on the bridge was one that would be remembered for years to come.

One of the temporary Muni reroutes because of the earthquake was the change in the downtown terminal for the 38L Geary Limited from the Transbay Terminal to Steuart & Market, for a connection with the greatly increased ferry service that had come with the bridge's closing.

Emergency improvements for regional transit riders as a result of the earthquake that became part of a permanent program were the acceptance of "AC/BART Plus" half-monthly passes (later changed to "BART Plus" passes), and ferry transfers and tickets, for Muni service.

Nov. 21, 1989

A Market Street Rededication Ceremony is held at Powell & Market following the completion of Phase II of the Market Street Transit Thoroughfare Project. Phase I, from April to November 1988, had involved Market St. street reconstruction from 3rd to 8th Sts. Phase II, from March to November 1989, saw reconstruction from Fremont to 3rd and from 8th to 11th.

The street improvements included streetcar track reconstruction and the installation of new boarding islands, widened crosswalks, and new curbing. (The thoroughfare project was part of the Market Street Beautification Project that had originally been approved by the voters in June 1968. Sidewalk and plaza construction for the beautification project had taken place a few years before the start of the thoroughfare project.)

Phase III, between Castro St. and Duboce Ave., and Phase IV, between Duboce and 11th St., were yet to be done. When these were completed, there would be full-time historic streetcar service from Castro to the Transbay Terminal, replacing the 8 Market trolley bus line that ran from 19th & Collingwood Sts. to the Ferry Terminal. There were also plans for an eventual extension of the streetcar service on Market to The Embarcadero and along The Embarcadero to Fisherman's Wharf.

- Apr. 10, 1990 The rebuilding of cable car No. 16 is celebrated with a parade on Powell St., a ceremony in front of the St. Francis Hotel, entertainment at Union Square, and free cable car rides. Much of the purpose of the Cable Car No. 16 Festival was a desire to publicize the fact that most of San Francisco had not been seriously damaged by the October 1989 earthquake, and was ready to welcome visitors.
- July 6, 1990 Muni introduces its new 30-foot Orion diesel buses with a procession of two Orions and No. 062 (a White Co. gasoline bus built in 1939) from Washington Square to the top of Telegraph Hill, and a reception in the parking lot at the foot of Coit Tower. The Orions replaced the underpowered 35-foot American Motors General (AMG or "Amy") buses, and the powerful yet relatively quiet buses were immediately popular in the neighborhoods that they served.
- Aug. 31, 1991 J Church and N Judah streetcars begin "pull-in" and "pull-out" service to and from the Green Division at Geneva & San José Aves. on the newly extended J line, after there had been training and testing over the new route from August 19th through the 30th. (The operating and maintenance division for Metro streetcars, the Curtis E. Green Light Rail Center, is named for Muni's general manager from 1974 to 1982.) Although these cars were in passenger service, the regular outbound terminal for the J line remained at 30th & Church.
- Work had begun on the construction project in January 1989, but completion had been delayed in part because of the need for other construction work in the city after the earthquake of October 1989. The project's purpose was to allow the extension of J line service on 30th St. and San José Ave. to the Balboa Park BART Station, and then on M line tracks to S.F. State University and the Stonestown Galleria Shopping Center. Also, J and N streetcars would have quicker access to their own lines from the Metro center at Geneva Ave., and streetcars would have an alternative route to the car barn if there was a blockage in the Twin Peaks Tunnel.
- Bion J. Arnold's 1913 report had advocated operating streetcars on a route through the Bernal Cut, and there had been official proposals for the extension of J Church service through the cut to Geneva Ave. since at least 1925.
- Dec. 4, 1991 In a ceremony at City Hall, city officials sign an \$82,087,695 contract with Breda Costruzioni Ferroviarie of Pistoia, Italy, for 35 Metro streetcars at \$2.079 million per car, with an option to buy up to 20 more. The contract included the cost of spare parts, diagnostic test equipment, manuals, and training. (Later, an additional 42 cars were contracted for, with 17 cars costing \$2.197 million each, and 25 costing

\$2.434 million each. As of 1999, total contract costs, including retrofits, are considered to be approximately \$2.6 million per car.)

The order for the new streetcars served to highlight the problems with the Boeing Vertol cars. Although there were further modifications to them after their acquisition by Muni, they remained unreliable, with many in-service breakdowns. The cars' poor design meant that maintenance tasks that should have taken minutes to perform often took hours.

Unlike the Boeing cars, the Breda cars did not have to operate in another city besides S.F. and could be designed specifically for Muni Metro service requirements, including heavy passenger loads, subway-surface operation, frequent starts and stops, sharp turns, and relatively difficult grades.

Jan. 10, 1992

A bulletin is issued to Muni operators regarding new regulations under the federal Americans with Disabilities Act (ADA). The bulletin included the statement that operators were to announce transfer points, major intersections and destinations, and any stop on the request of an individual with a disability. (Later bulletins stated that a stop should be called on the request of any individual, whether or not disabled.)

The bulletin stated that "the Muni currently has an excellent reputation with the elderly and disabled community." In fact, the PUC and Muni were in the forefront of efforts by U.S. transit agencies to provide good paratransit services and to make fixed-route services accessible for elderly and disabled persons.

Apr. 26, 1992

The one-hundredth anniversary of electric streetcar service in S.F. is celebrated that Sunday. Rides on historic streetcars were provided on Market St. for nickel fares that weekend, and Sunday's events also included a parade of historic streetcars on Market from 11th St. to 4th St., and a ceremony in front of the San Francisco Shopping Centre at Market & 5th.

June 20, 1992

Major changes to Owl (1 a.m. to 5 a.m.) service take effect, making this the final phase of the route restructuring that had begun in August 1979. Although some of the Owl-service lines had operated with 60 minute headways, the nine lines of the new service operated every 30 minutes, with a route structure as comprehensive as possible given the limited operating funds available. Also, timed-transfer or "drop-off" (short wait) service was built into the schedules at several transfer points. One of the new Owl lines was the 91 Owl, whose 48.2 round-trip route miles made it the longest line in the city.

Muni did not get all the improvements that it had sought under its first 5-Year Plans, and there had been major service cutbacks in 1988, but the city finally had the comprehensive transit system that had been envisioned by Bion J. Arnold and others so many years before.

Aug. 1, 1992

The adult cash fare increases from 85¢ to \$1.

Although the fare boxes that had been installed beginning in July 1991 could take dollar bills, the turnstiles at the Metro stations could not. On August 7th, Muni operators began collecting fares at the Metro stations from Van Ness Ave. to West Portal for several hours on weekdays until change machines could be acquired for the stations. (The BART/Muni Metro stations, from Embarcadero to Civic Center, already had change machines in the mezzanine areas.)

Oct. 26, 1992

An S.F. Superior Court jury takes less than an hour to decide in favor of the city in a case brought by the owners of a Russian Hill residence who had claimed that the noise caused by the Hyde St. cable was a nuisance and violated the city's noise control ordinance. The cable noise had temporarily increased when a new device to keep the cable in its slot was installed at Hyde & Chestnut Sts. in July 1990. Although city engineers reduced the noise level shortly thereafter, the owners sued the city in December of that year.

At the trial, an expert for the city testified that after the device was repaired, the noise level was lower than the noise level prior to the device's installation. There was also testimony that the owners of the 85-year-old house had not made any effort to repair or otherwise soundproof the windows, which were in extremely poor condition. Another city expert testified that the cable noise had not caused property values in the area to decrease.

Although the homeowners appealed the jury verdict to a state appellate court, that court ruled in the city's favor in February 1994. Among other things, the court held that the city's noise ordinance did not apply to city-owned facilities such as cable machinery.

Dec. 28, 1992

Muni's 80th anniversary and the restoration of Muni work car C-1 are celebrated at the Mint Division.

C-1 had been built in 1917 and had been used as a work car until it was retired in 1975 and loaned to a transit museum. The car was recalled to Muni because it had the same wheelbase as the new Breda cars and could be used to test their clearances on the Metro system.

(A portable generator on the car allows it to test new streetcar tracks even though electricity is not yet available from overhead wires.)

Although museum officials feared that C-1's use by Muni would be "abusive" and possibly even "tragic," it was hauled back to the city and restored to its 1917 appearance by Muni and Market Street Railway Co. work crews.

Jan. 15, 1993

The On-Time Rebate Program begins as part of Muni's Clean/On-Time Program, and riders are eligible to receive either a Muni token or a discount on their next Muni pass if they have to wait for a bus or streetcar more than 15 minutes beyond its scheduled time. (Cable cars were not included in the program.)

The PUC allocated \$1 million for the Clean/On-Time Program in the 1992-93 fiscal year, including salaries for additional street inspectors and vehicle cleaners, and \$100,000 for the rebate program that started in January.

Muni had begun a Graffiti Prevention Program in September 1990 with the aid of some funding from Pacific Telesis. The additional vehicle cleaners were hired for the Clean/On-Time Program because other transit agencies had found that one of the best ways to discourage graffiti was to remove it as soon as possible. Vehicle cleaners were sent to transit terminals so that they could clean the vehicles and remove graffiti while the vehicles were on the streets, rather than having to wait until they were returned to their yards.

Funds for the inspectors' and cleaners' salaries were exhausted at the end of February, and those positions were eliminated. (Later, more funds were obtained for the vehicle-cleaner program.) The rebate program ended on June 30th, at the close of the fiscal year. Muni received over 60,000 requests for rebates, most of which were honored.

Feb. 26, 1993

The first Muni buses to have "wrapped" advertising appear on the streets of the city, as two trolley buses and one diesel bus are covered with an advertisement for the Pepsi Crystal soft drink. (Wrapped advertising takes up the whole side and back of the bus, including the windows. The portion covering the windows is a see-through film.)

The pilot program of the wrapped advertising was successful, and the next July the PUC approved the use of wrapped advertising on a maximum of 50 vehicles out of the 1,000 vehicles in the Muni fleet. Before the wrapped buses had been allowed to enter service, Muni had consulted with representatives of the elderly and disabled

communities to hear any concerns they might have about the wrapped advertising. (In 1995, further discussions centered on the problem of vehicle identification, and the advertising contractor agreed that it would not put any of the advertising on the front of the bus and would make sure that the vehicle identification numbers could be easily seen.)

While some people in the city expressed concerns about the advertising, others said that the colorful buses were a welcome addition to the urban landscape. Also, some of those who objected to the buses objected to a particular advertisement and not to the concept of full advertising on the vehicles.

Apr. 30, 1993

A celebration of the planting of palm trees on upper Market St. is held at Market & Noe Sts. The trees were planted by the Department of Public Works in the median strips on Market between Castro St. and Duboce Ave. that were constructed as part of Phase III of the Market St. Transit Thoroughfare Project.

There had been some doubts about the appropriateness of the palms for upper Market St., but the sight of the Canary Island palms, each 20 feet tall and weighing 3 and 1/2 tons, caused most people to agree that the decision was the correct one. (A total of 51 palm trees were planted in the median strips on upper Market St. during Phases III and IV.)

Construction for Phase III had started in June 1992, but the work progressed slowly because the project was not allowed to disrupt Market St. traffic or access to the stores on the street any more than absolutely necessary.

June 19, 1993

The J Church line begins full-time service between the Balboa Park BART Station and Muni's Embarcadero Station.

July 5, 1993

A few trolley buses begin supplemental service in the morning rush hours on the 31 Balboa diesel bus line, over a year after the construction work for the conversion of the line to trolley bus service had been completed, in May 1992.

ADA had not been in effect when Muni submitted plans to the federal government for access by the elderly and disabled on the trolley bus line, and it had been thought that the new service would be operated with non-accessible trolley buses until accessible buses could be acquired. However, the 31 diesel line had been designated an accessible line, and when the construction project was completed,

Muni management reconsidered its decision and decided not to replace the accessible service with non-accessible vehicles.

An agreement to lease some accessible trolley buses from Seattle had fallen through, and to make use of the completed project, Muni began operating a few of its non-accessible 40-foot trolley buses, but only as part of the frequent rush-hour service. Because of an agreement with the disabled and elderly communities, the trolley buses were removed from service that December, since that was considered to be the start of the rainy season.

Aug. 1, 1993

New Muni fares take effect, as part of fare changes that were to take place on that day and on October 1st. Although the adult cash fare remained at \$1, the August fare changes included a reduction of the price of a token from 90¢ to 80¢, an increase from \$32 to \$35 for a Fast Pass, and a new fare of \$1.50 for most of the express services. (There had also been higher express fares from 1969 to 1980.)

Also, all cable car fares were changed to \$2, but transfers were no longer issued or accepted for cable car service. (The adult cable car fare had been \$3.) Federal regulations required at least a 50% discount fare in off-peak periods, and elderly and disabled cable car riders were allowed to pay \$1 from 9 p.m. to 7 a.m., since that was the off-peak period for the cable cars.

Oct. 1, 1993

In the second phase of the fare changes, all transfers are eliminated, and a new Premium Pass and \$2.25 day pass are instituted. The \$45 Premium Pass was to be good on all services that the Fast Pass was good for, plus the expresses, and the \$2.25 day pass was to be good on all Muni service except the cable cars. (All passes except the Premium Pass required a 25¢ surcharge for express services.) The \$2.25 pass was proposed and adopted at the Board of Supervisors on July 19th, giving Muni less than two and 1/2 months to have the pass designed and printed, and to set up a system of sales outlets.

The 80¢ tokens and the \$2.25 passes had been proposed because it was feared that the elimination of transfers would inconvenience too many riders. The day before the transfers were eliminated, Mayor Frank Jordan announced that as a temporary measure, elderly and disabled persons would be allowed to board at transfer points without paying an additional fare.

The Board of Supervisors had approved the fare changes because of the need to balance the city's budget. The board did not want to raise the adult cash fare from \$1, and it approved the elimination of transfers

and the other fare changes based on estimates that the changes would bring in the required revenue.

Oct. 23, 1993

M-line streetcar service resumes to Balboa Park after being shut down between there and St. Francis Circle since June 19th, and new high-level platforms are opened at the S.F. State and Stonestown stops. Bus service had been substituted on that section of the M line for the first phase of the 19th Ave. Platform & Trackway Improvement Project.

Two ticket machines were installed at each platform, and persons on the platform were required to have proof of fare payment — a Muni ticket, pass, transfer, or token. (The four machines had formerly been used as cable car ticket machines, three at Bay & Taylor and one at Powell & Ellis.)

Neighborhood residents had objected to the original plans for the 19th Ave. project. The final design was based on a compromise proposal, developed by a former PUC general manager, which did not include the pocket tracks that Muni said were needed to ensure the feasibility of J-M combined service and the extension of J-line service to Stonestown. The problems associated with the project highlighted the need for improved public outreach for Muni projects, during both the planning and the construction phases.

Since the pocket tracks were not included in the project, it was thought that full-time extension of J-line service to S.F. State and Stonestown would probably depend on the completion of Metro construction projects then under construction — the Advanced Train Control System in the subway, the Muni Metro Turnback, and the Muni Metro Extension — so that streetcar layovers on a J-M loop could generally be taken at the end of the Metro extension.

Oct. 28, 1993

Cable car ticket machines are no longer in service in the Powell & Market area because of problems with people offering to "help" tourists use the machines. (The machines had been removed from the Bay & Taylor turnaround area a few days before.)

It was thought that the removal of the machines and the institution of the one-way, one-ride cable car fare would essentially eliminate any preying on unsuspecting tourists. The machines contributed to tourists' confusion by requiring the selection of the proper fare category before money was inserted and by dispensing Susan B. Anthony \$1 coins in change. Some observers also cited other factors as reasons for the problems at Powell & Market, including the need for a better placement of the machines in the area and the fact that the high cable car fares made the cheating of tourists more attractive to criminals.

Nov. 2, 1993 Proposition M is approved by the city's voters, establishing a new Public Transportation Department and putting Muni under its own Public Transportation Commission (PTC), with five members appointed by the mayor. The commission was to appoint a director of public transportation, who, with the approval of the commission, could appoint up to four deputy directors. The proposition also allowed for the combining of the Parking and Traffic Commission and the new PTC, under a seven-member PTC, by an ordinance of the Board of Supervisors. (As of this time, the board has not chosen to do so.) The proposition stated that its provisions could be fully implemented at any time between January 1 and July 1, 1994.

In the same election, Proposition AA was approved, a declaration of policy that all city officials and full-time city employees should ride public transit serving San Francisco to and from their workplace at least two workdays per week.

Jan. 26, 1994 As Phase III of the Market St. Transit Thoroughfare Project nears completion, boarding islands on upper Market St. begin being used by Muni buses on the 8 Market, 37 Corbett, and Metro Owl bus lines. (Most of the work for Phase III, between Duboce Ave. and Castro St., was finished the next month.)

There was a delay in the start of Phase IV, between 11th St. and Duboce Ave., because of the legal disputes by the two contractors who were competing for the construction project, and that phase did not get under way until the next January.

Seventeen PCC cars (fourteen from Philadelphia and three from S.F.) were rehabilitated by the Morrison-Knudsen Co. for regular service on the historic streetcar line. Since the cars were ready for service before the line was completed, they were operated on the weekends on the outer ends of the J and N lines in order to make sure that they were performing according to Muni's specifications during their warranty period.

Some rail advocates had opposed the painting of thirteen of the cars in the PCC colors of other transit agencies in the U.S., and had said that Muni's green & cream PCC colors were more authentic for S.F. service. However, their opposition soon vanished when they saw the colorful cars on the city's streets.

Feb. 10, 1994 Muni holds a news conference in conjunction with the Senior Action Network and the Muni Accessibility Advisory Committee to publicize the fact that front seats on public transit vehicles must be yielded to

seniors and the disabled under ADA. Decals and "It's The Law" posters were put in Muni vehicles concerning the new requirement. (The prior Muni regulation concerning the yielding of seats in the front did not have the force of law, and the previous decals had only requested that passengers yield the seats.)

Mar. 1, 1994

Transfers are restored for bus and streetcar service, and the \$2.25 day pass and the premium fare for express service are eliminated.

It had taken only a month after the October fare changes to find out that the new fare structure would not meet the revenue projections, and a decision was made in December to restore the transfers. However, the transfers could not be reinstated immediately — the day-pass system had to be eliminated without inconveniencing the riders who had purchased the passes, a new agreement for the printing of transfers had to be made, and the first shipment of transfers had to be delivered to Muni.

The price of a token remained 80¢, for sales of tokens in rolls of ten, twenty, or forty. The price had been reduced to that amount to help riders when transfers were eliminated, but after transfers were reinstated, the price remained at the deeply discounted rate.

Mar. 12, 1994

Full trolley bus service begins on the 31 Balboa line, with articulated trolley buses acquired from New Flyer. The official date for the new service was January 1st, but not enough of the 60 buses were ready in time, and the service had to be phased in.

The new buses also provided service in combination with non-accessible buses on the 14 Mission and 49 Van Ness-Mission lines every day, and the 30 Stockton line on weekends. (The 14 line was officially designated an accessible line in July 1995, with full service by the articulated buses.)

The use of the new buses on the 30 line was controversial, since some Marina residents thought that the longer buses were not in keeping with the character of their neighborhood. However, Chinatown residents protested that the new buses were needed in their neighborhood, and the PUC approved the use of the buses on the entire line.

June 28, 1994

The PTC takes over responsibility of Muni from the PUC, as the PTC's five commissioners are appointed by the mayor, and the commission appoints a director of public transportation to oversee Muni. (Two of the new commissioners had transferred from the PUC.)

The implementation of Proposition M allowed Muni to have a management structure that could provide service to the public in a more efficient manner. Under the old system, the general manager of Muni had reported to the PUC general manager, who, in turn, reported to the PUC. With the establishment of the Public Transportation Department, the department's director would oversee Muni and report directly to the PTC. Also, rather than having to request the aid of PUC bureaus, he would have control over his own finance, personnel, and engineering and construction departments.

Feb. 13, 1995

A news conference is held at Green Division to display the first Breda prototype and to announce that final assembly of the cars would be done at Pier 80 in S.F. The first car had arrived at the division on January 12th.

Mar. 1, 1995

"A Celebration of Two Stations" is held for the official opening of the two "proof-of-payment" Metro platforms at S.F. State and Stonestown. (Muni's high-level platforms are called "stations," giving Muni nine in the Metro subway, two on 19th Avenue, and four on the Muni Metro Extension as of January 1998.)

The M line had been cut back to St. Francis Circle for Phase II of the construction project, which began the previous July 30th. Streetcar service had been reinstated to Stonestown on November 19th, in time for the start of the holiday shopping season, and full service had resumed on January 28th.

Mar. 27, 1995

As new weekday schedules take effect, some of the service on the J and M lines is combined on weekday mornings and afternoons so that riders do not have to transfer from one line to the other at Geneva & San José Aves. (J and M through-service was discontinued when a re-railing project on the M line between 19th and San José Aves. began in February 1998.)

Also, the maximum number of Metro cars scheduled for service was reduced to 90. There had originally been 104 Metro cars in maximum service, but the problems with the Boeing cars had forced Muni to make a series of cutbacks in the number of cars that could actually be put on the streets. (In fact, there were so many problems with the Boeing cars that Muni could not always get 90 cars out for rush-hour service.)

Apr. 12, 1995

A news conference is held at Mission & 22nd Sts. to publicize a pilot program of surveillance equipment on Muni buses. Four video cameras and one microphone for each bus were installed on ten of the articulated trolley buses on the 14 Mission line. The recording devices

were to be tested for 90 days, and then evaluated by Muni and the S.F. Police Department to determine their effectiveness in increasing the safety of both passengers and drivers.

(After a 21-month trial, it was found that the probability of an incident happening on one of the equipped buses was 79% less than on the rest of the 14 Mission line. In fiscal year 1998-99, Muni converted the equipment from a tape system to a digital system, and is now committed to putting the equipment on all new vehicles, as well as all of the Breda cars.)

- Apr. 17, 1995 A new terminal for the Ocean Beach lines — the 5 Fulton, 31 Balboa, 31AX Balboa Express, and 38 Geary (Ocean Beach branch) — is opened at La Playa & Cabrillo. Although the terminal was only moved one block, it marked the official end of service to La Playa & Balboa that had begun in December 1883.
- June 20, 1995 A news event is held at Pier 80 to celebrate the opening of the assembly facility for the Breda cars. Some 30 new jobs would be created by Breda, along with other employment that would be created because of work for Breda done by local subcontractors.
- Sept. 1, 1995 The opening of the F Market historic streetcar line on Market St. between 17th & Castro and the Transbay Terminal is celebrated with a ceremony at 2nd & Market beginning at 10:30 a.m., a parade of 20 historic streetcars up Market St., a ribbon cutting at 17th & Castro, and free service on the line for the rest of the afternoon.
- The historic streetcar line had been designated the F line because Muni had originally planned to operate an E Embarcadero historic streetcar line between the 4th & Townsend train depôt and Fisherman's Wharf, and the line on Market St. and The Embarcadero was called the F line because that is one letter after E in the alphabet. (When the F line is extended to Fisherman's Wharf, it will be called the F Market & Wharves line.)
- The F line had started a few weeks earlier than had originally been planned, and some minor construction work was necessary after the service had begun. The Market St. construction project included changes in the overhead wires for trolley bus service and the installation of new boarding islands, allowing Muni to complete the process of transit-lane improvements that had begun in August 1985.
- Oct. 7, 1995 The Metro subway begins closing early, at about 10 p.m., for Advanced Train Control System (ATCS) construction that is scheduled

to last for several months. (There had also been early subway closings for ATCS from September 1993 to March 1995.)

ATCS would provide a "moving-block" signal system for the continuous tracking of the Metro cars and the control of their acceleration and deceleration, location, and speed. In conjunction with the Muni Metro Turnback being constructed east of the Embarcadero Station, the new system would allow for faster, safer, more frequent, and more reliable service.

The coupling of the cars at the portals and the congestion often caused by the slow turnaround times at the Embarcadero Station would be virtually eliminated. (Rush-hour service would be provided by the single cars and two-car trains that provided service during the rest of the day, instead of three- and four-car trains.) Also, the new system would allow outbound cars to turn back at the Castro St. Station, so that there could be more frequent service between that station and downtown.

Dec. 29, 1995

Shortly after 9 p.m., the last 8 Market trolley bus leaves the Ferry Terminal for 19th & Collingwood, making it the last service on a line that could be traced back to a streetcar line that had started in 1906 and a cable car line that had begun service in 1888.

Although 8-line service had been drastically reduced with the beginning of the F line, some service had been retained based on the Board of Supervisors' concerns that the F line might have operational problems. In fact, the historic streetcar line was quite successful. Within a few weeks, it had over a thousand more weekday boardings than full 8-line service, allowing the 8 line to be eliminated entirely within four months of the F line's start.

U.S. Street Railways in the 19th Century

- Nov. 14, 1832 The world's first horsecar line begins service in New York City for the New York & Harlem Railroad.
- Horsecars did not come into widespread use until grooved rails were used for the tracks, allowing them to be level with the street surface so that they would not interfere with other traffic. The grooved rail was invented by a French engineer and was first used in New York City in 1853.
- Sept. 26, 1835 Steam service begins on the New Orleans & Carrollton Railroad in New Orleans, Louisiana, making the St. Charles streetcar line the oldest streetcar line in continuous service in the U.S. Over the years, steam, horses, and even ammonia were used to power the cars, until the line was converted from horsecar to electric service on February 1, 1893.
- 1872 The year of the Great Epizoötic, an influenza-like disease that afflicted horses in the eastern U.S. In Philadelphia alone, the disease killed 2,250 horses in only three weeks. Fear of its recurrence was an incentive for street railway operators to look for a replacement for horsecar service.
- Sept. 1, 1873 Andrew Smith Hallidie's Clay Street Hill Railroad begins cable car service after testing had started on August 2nd.
- Although Hallidie deserves most of the credit for the development of the world's first successful cable car line, his importance in its creation was probably more as an entrepreneur than as an inventor. He played no major role in later improvements to cable car systems, and the credit for the first successful application of cable technology for public transportation must be shared between Hallidie and the company's draftsman, William Eppelsheimer.
- The cable car's brief heyday was marked by the legal maneuverings of a patent trust, controlled by Hallidie and others, in its only somewhat successful attempts to obtain royalties from the construction of cable car systems.
- Jan. 27, 1877 The Sutter Street Railroad converts from horsecar to cable operation on Sutter from Market to Larkin. A cable car line's lower operating costs and its ability to carry more passengers per hour were incentives

for horsecar operators to convert to cable operations on lines whose relatively heavy ridership could justify the large investment.

Jan. 28, 1882

Cable service starts on the Chicago City Railway. This service showed that cable cars could be successfully (and profitably) operated on flat terrain, on curves, and in harsh winters.

Cable systems were installed in most of the major U.S. cities. With 52.8 miles of double track, S.F. had the most cable track mileage of any city, although Chicago had the most vehicles and riders. Kansas City, Missouri, had the most comprehensive system, and New York City, St. Louis, and Denver also had major installations. Although cable cars were mostly a U.S. phenomenon, Edinburgh, Scotland, and Melbourne, Australia, also had comprehensive systems. Dunedin, New Zealand, which had service from 1881 to 1957, was both the first and last city to have service outside the U.S.

Sept. 24, 1883

Cable service starts on the Brooklyn Bridge, operated by the company that also operated the bridge, until the cable operation was taken over by a private company in 1898. Since the bridge company was controlled by the cities of New York and Brooklyn (before Brooklyn became a borough of New York City), this was probably the first instance of the public ownership and operation of a transit service in the U.S.

(In October 1905, New York City began operating the Staten Island Ferry — the oldest publicly owned and operated transit service in the U.S. in continuous operation. Years later, the Brooklyn Bridge figured in another transit "first," when the first PCC streetcar to begin regular service began by operating over the bridge on a Manhattan-Brooklyn line, in October 1936.)

Sept. 6, 1887

The Union Street Railway of St. Joseph, Missouri, begins electric streetcar service with a system designed by Frank J. Sprague, but the system receives little attention from the transit industry. Earlier attempts by others to develop electric streetcar systems were beset by operational problems and were essentially unsuccessful.

Feb. 2, 1888

Sprague's streetcar system starts revenue service on the Union Passenger Railway in Richmond, Virginia.

Henry M. Whitney, owner of Boston's West End Street Railway, decided to convert his horsecar system to electric streetcar service after inspecting the Richmond installation in mid-1888, although he had earlier announced plans for two cable car lines. Whitney's horsecar operation was the largest in the U.S., with 2,000 cars and 8,000

horses. He put electric streetcars into public service in Boston on January 3, 1889, using both an underground electrical conduit system and Sprague's overhead trolley system. (The conduit system was unsatisfactory, and it was discontinued that July.)

Development of the streetcar led to the rapid replacement of horsecar lines and the more gradual replacement of cable car lines, ending the very brief reign of the cable cars as the most economic form of urban street transportation. It was generally said that streetcars could be operated for about one half the cost per mile of cable operation, and with about one seventh the investment in a cable system.

The streetcar's success pointed up the huge investments, susceptibility to accidents, and high expenditure of energy in moving the cable (rather than the cars and their riders) that were unavoidable in cable operations. The high percentage of energy in moving the cable was for a short while used as a selling point for the superiority of cable systems on heavily used lines, since it cost little extra energy to add cars to the system. But this argument could not hold up against the overwhelming evidence that streetcars provided better service with lower costs.

1893

General Electric develops its Type-K controller and Westinghouse develops its 50-horsepower No. 3 motor. Both allowed for more efficient and dependable streetcar service than that provided by the earlier 25-horsepower motors and rheostat controls. The new motors and controllers, other improvements to the streetcar, and its greater speed and flexibility of operations, established the streetcar's superiority over the cable car in everything except operations on grades of over 14%.

With the coming of streetcars, street railway service began a period of tremendous growth. Horse- and mule-powered service reached its peak in the U.S. with about 5,600 miles (measured in single-track mileage) in 1890, and cable cars with only about 600 miles in 1893. But streetcar mileage (including interurban service) was over 21,700 by 1902, with more growth to come.

Streetcar service had a strong influence on the development patterns of many cities, including Oakland and Los Angeles, that achieved maturity before automobiles came into widespread use.

Sept. 1, 1897

First day of streetcar service in the first subway in North America, built by the Boston Transit Commission for rental use by the Boston Elevated Railway Company, the successor company to the West End

Street Railway. This was the first major expenditure of public funds for an urban mass transit activity.

A Few Definitions

Bus — Derived from “omnibus,” the term now refers to large rubber-tired vehicles that are used for carrying passengers, either motor buses using internal combustion engines or trolley buses. (“Coach” instead of “bus” is also used in S.F. for both trolley buses and motor buses.) Muni briefly tested a steam bus in 1972, as part of a federally funded program.

Although trolley buses are fixed-guideway vehicles, all *bus* drivers have at least some control over the vehicle’s direction besides forwards and backwards, while the operators of railcars – horsecar drivers, cable car gripmen and women, and streetcar operators – do not have the same kind of control.

Cable Cars — The cable cars that began service in 1873 and continue to operate in S.F. get their motive power by attaching to a constantly moving cable with a mechanical device called a grip. The grip extends from the car and through a slot between the rails, allowing the car’s operator (the gripman or gripwoman) to use the device to grip and release the cable that runs in a channel beneath the tracks. Although the cables are now powered by electric motors, the first cable car service was, like the steam boat and the steam locomotive, an adaptation of the steam engine for the movement of goods or passengers. (The cable machinery in the Washington & Mason powerhouse was powered by steam engines until 1911.)

Commuter Rail — Commuter rail is similar to regional heavy rail service, but operates with generally heavier passenger cars on tracks that are part of an intercity railroad system, and usually has longer average distances for passenger trips. The Peninsula rail line is an example of this kind of service. Many observers believe that the term “commuter rail” is misleading, since the service is not exclusively for weekday journeys to and from work, and some writers prefer alternatives such as “metropolitan railway,” “suburban railroad,” or “regional rail.”

Counterbalance — A streetcar counterbalance operated in S.F. on the Fillmore St. hill between Broadway and Green St. from 1895 to 1941. Streetcars hooked onto opposite ends of a cable beneath the street and assisted each other up and down the hill, running at half speed to control the speed and braking on the steep grade. After the first few months of service, all of the cars on the Market St. Rwy’s Fillmore & 16th St. line were provided with hooks so that they could use the counterbalance and operate to the northern end of the line at Bay St. When the URR took over operations in 1902, the line was split, with regular streetcars operating to Broadway and special cars that could use the counterbalance operating on the northern section.

Double Track, Single Track — Double- or single-track mileage is a measurement between two points on a rail line in terms of two-way service (double track) or in only one direction at a time (single track), with the single-track mileage equaling the round-trip mileage of the line. It is not a statement of whether a line actually has one or two tracks between two points. Thus, the length of the double-tracked J Church line between 30th & Church and the Embarcadero Station is 4.5 miles measured in double-track mileage (two-way service is measured), and 9 miles measured in single track (each direction must be added to arrive at a total).

According to a standard method for measuring double-track mileage, if there is actually only one track between two points, it is counted as a double track if there is traffic in both directions, but as one-half a double track if there is traffic in only one direction.

Funiculars or Funicular Railways — These are very short railways on steep inclines that operate with a car permanently attached to a cable. A motor runs the cable in one direction, so that the car moves from one terminal to the other, and reverses its direction for the car's return journey. Usually, funiculars operate with ascending and descending cars counterbalancing each other. In the U.S., they are also called inclined planes, although that is a more generic term for any simple machine used to raise or lower a load by rolling or sliding.

The first funicular railway in the U.S., Pittsburgh's Monongahela Incline, began service in May 1870, over three years before the start of Hallidie's Clay Street Hill RR. In the U.S., they are still operated in Dubuque, Iowa — the Fenelon Place Elevator Company (Fourth Street Elevator); Johnstown, Pennsylvania — the Johnstown Inclined Plane; Pittsburgh, Pennsylvania — the Duquesne and Monongahela Inclines; and Chattanooga, Tennessee — the Lookout Mountain Incline Railway.

In February 1996, a new "Angel's Flight" funicular began service on Los Angeles' Bunker Hill, near the site of the old one that had operated from 1901 to 1969.

Heavy Rail — Heavy rail, also called rail rapid transit or metro, carries passengers in trains over an exclusive right-of-way, such as a subway, an elevated line, or a separate right-of-way at or near ground level, so that other traffic, including cross traffic, does not interfere with its operation. Heavy rail systems have differing degrees of automatic train controls, and they use high-level station platforms, which allow passengers to enter and leave the trains without having to use steps, shortening train waiting times and speeding service.

Although usually identified with electric-powered systems, heavy rail systems can be either diesel or electric powered. They can be regional systems such as Paris' RER, city systems such as the New York City subway, the London Underground, and the Paris Metro, or, like BART and the Washington, D.C., Metro, a combination of the two. Muni Metro, although it has high-level station platforms and automatic controls in its subway and tunnel operations, is essentially a light rail system, not a metro system.

Horsecars — Horsecars in the U.S. were generally of two types: a two-horse car carrying up to 20 passengers, with a conductor and driver, and a smaller one-horse car carrying 14 passengers and a driver.

Horsecars were more comfortable, quiet, and efficient than omnibuses — more efficient since the rails allowed the cars to be pulled with less effort, meaning lower costs (less horsepower was needed per passenger) and increased revenues (more riders could be carried per hour of service) for transit operators. Also, horsecars' wheels were smaller than omnibuses', allowing lower floors and easier boarding for passengers.

Transit companies had to keep from four to ten horses per car, depending on operating conditions. The acceleration and speed of the cars was slow — at 4-6 mph, the cars were barely faster than walking. Working conditions for both employees and animals were often harsh, and horses were good for an average of only four years in this difficult work.

Light Rail — "Light rail" is a term first used in the 1970s, in part to sell modern streetcar systems as something more than a re-introduction of "Toonerville Trolley" service. A light rail line usually relies on overhead wires for its electric power, and provides a medium-capacity service, between a bus line's lower capacity to carry passengers per hour and the higher capacity (and higher construction costs) of heavy rail. Light rail can be more flexible in its operations than heavy rail, with trains or single cars operating over a variety of right-of-ways — including right-of-ways in mid-street medians or shared with street traffic. Light rail vehicles are normally manually controlled, and modern cars can be designed to allow passengers to use a variety of boarding methods — from high-level station platforms, low-level platforms (such as islands in the middle of the street), or the street surface. (Moving steps in the Metro cars allow all three methods to be used in S.F.)

There is still disagreement over the definition of light rail service. For instance, while some writers use the term for all modern service, others use the term only for operations in exclusive right-of-ways, assigning "streetcar" to the service in street medians and regular traffic lanes. Still others say that "light rail" is not a particularly useful term — just as a Model T Ford and a Ford Taurus are both considered to be automobiles, there are no significant differences between a modern light rail system and the electric streetcar system developed by Sprague in the late 1880s.

Newer light rail systems, such as Sacramento's and San José's, are often more suburban than urban in character. They serve major travel corridors between centers of urban activity (such as shopping and office centers, and airports) and residential areas that have lower densities than those usually associated with older, highly urbanized areas. Generally speaking, these systems have routes that are longer and stops that are farther apart than those of urban systems such as San Francisco's. (The newer systems' stops are called stations because of the shelters and other amenities that have been placed at them, while for Muni Metro, only the high-level platform stops are called

stations.) Comparisons between these suburban systems and urban systems like Muni Metro can often be misleading.

Omnibus — The omnibus was an enlarged version of a stagecoach, seating about 18, and hauled by two- or four-horse teams, operating in cities on a fixed route at regular intervals for a fixed fare. An omnibus ride could be a rough one, on the often poorly paved or unpaved streets of their era of operation. Although omnibuses were operated in Paris in the 17th century, their first "modern" use was in Nantes, France, beginning in 1825. (Omnibus service started in New York City in 1827.)

PCCs — PCCs are streetcars that were originally designed under the direction of the Electric Railway Presidents' Conference Committee, in an attempt by 25 U.S. and Canadian transit companies to put an improved vehicle into service and reverse the decline in transit use that had begun in the 1920s. PCC cars have a standardized and streamlined design, with motors, controls, acceleration, and braking that are superior to those of older streetcars.

The first of the quiet and economical cars was put into service in New York City in October 1936, and Muni's first PCC cars arrived in August 1948. The last of the approximately 5,000 cars built for North American use was Muni's car No. 1040, built by the St. Louis Car Co., and accepted for Muni service in 1952. Modernized versions of the cars were produced in other countries for several years after that.

"Magic Carpet" cars are very similar in style and operation to standard PCCs, but do not have their patented improvements. Muni bought five Magic Carpet cars in 1939 — at the time, the city was forbidden by its charter from paying the royalties that it would have had to pay for cars built under PCC licensing agreements.

Steam Dummy — A steam dummy was a small steam locomotive, operating in cities, that was disguised to look like a railway coach and had its exhaust muffled to avoid startling horses, since a frightened or runaway horse could be very dangerous.

Steam power for transit in cities had serious drawbacks — it frightened horses, its exhaust was offensive, and a steam engine small enough for street use was relatively inefficient.

Later, "dummy" designated any small steam locomotive used for city transit, or a grip car on cable car lines that had grip cars and trailers — such as on Hallidie's original line and the Pacific Ave. line that operated until November 1929.

Streetcars, Trolley Cars — Although horsecars and cable cars were also known as streetcars, the term now generally refers to electric streetcars, both historic cars and modern light rail vehicles. (Streetcars are known as trams in many countries outside the U.S.) The term "trolley car" refers to streetcars, not to cable cars, as a person will learn quickly enough if he or she refers to a cable car as a trolley within the hearing of a cable car crew member.

The term "trolley" was not generally used to refer to streetcars in San Francisco until the Trolley Festival began service in 1983. Since the term refers to the method of collecting electricity from the overhead wire (earlier with a pole and wheel, now with a pole and carbon slide-shoe), its use for modern streetcars (such as the San Diego Trolley), which operate with pantographs, is technically incorrect, but less cumbersome than the term "light rail vehicle."

Switchback — Switchback operations occur on rail lines that have tracks which zig-zag on grades too steep for a more direct route. At the end of each section of track, the locomotive or streetcar switches over to the next section and reverses direction so that it can ascend or descend to the next level. The MSRY's No. 33 streetcar line had a switchback at Market & Clayton Sts. on its route over Twin Peaks.

Train — Although this term has seen increasing use for S.F. streetcar service in recent years, it has the meaning of "sequence," "succession," "string," or "series," and should not be used when a single vehicle is involved. Thus, Metro service is provided by single cars and two-, three-, or four-car trains.

Trolley Buses — Trolley buses, or trackless trolleys, are rubber-tired vehicles with motors powered by electricity from overhead wires. ("Electric trolley bus" is a redundant term, but must be used occasionally to differentiate real trolley buses from the *faux* trolley cars and cable cars that are actually small buses.)

Trolley buses' first use in this country was in Hollywood's Laurel Canyon in 1910. They began service on Staten Island, New York, beginning in October 1921, and in Philadelphia beginning in October 1923. Philadelphia has had continuous trolley bus service since that time.

Although their operations are less flexible than that of motor buses, they require less maintenance, and are quieter, less polluting, better at climbing hills, more energy efficient, and longer lasting. Their use is generally restricted to lines on which a high-enough frequency of service can justify the expense of the electric power system installation and vehicle costs.

San Francisco's trolley buses (as well as its streetcars and cable motors for the cable cars) are almost entirely pollution free, since their electric power comes from the city's hydroelectric Hetch Hetchy Water & Power System. For many people, trolley buses' quieter, cleaner service outweighs the unsightliness of the overhead wires necessary for their operation.

For Further Reading

Bion J. Arnold. *Report on the Improvement and Development of the Transportation Facilities of San Francisco*. Submitted to the Mayor and the Board of Supervisors, City of San Francisco, March 1913.

Walton Bean. *Boss Ruef's San Francisco: The Story of the Union Labor Party, Big Business, and the Graft Prosecution*. University of California Press, 1952.

Indispensable for an understanding of S.F. in the years just prior to the voters' approval of a municipal railway.

Gerald M. Best. "Early San Francisco Locomotives." *The Western Railroader*. Issue No. 364 (June 1970).

Rudolph Brandt. *Ocean Shore Railroad "Reaches the Beaches."* Enlarged Edition. Reprint of an article in *The Western Railroader*, Issue No. 151, with supplement. Revised Printing, 1965.

William A. Bullough. *The Blind Boss and His City: Christopher Augustine Buckley and Nineteenth-Century San Francisco*. University of California Press, 1979.

Bureau of Engineering of the Department of Public Works. *The Municipal Railway of San Francisco, 1912-1921*. City and County of San Francisco, July 1921.

Bureau of Engineering of the Department of Public Works. *Report on the Street Railway Transportation Requirements of San Francisco: With Special Consideration to the Unification of Existing Facilities*. City and County of San Francisco, May 1929.

[Roy S. Cameron.] *History of Public Transit in San Francisco, 1850-1948*. City and County of San Francisco, June 1948.

Robert W. Cherny. "City Commercial, City Beautiful, City Practical: The San Francisco Visions of William C. Ralston, James D. Phelan, and Michael M. O'Shaughnessy." *California History* (Winter 1994/95).

Raymond H. Clary. *The Making of Golden Gate Park: The Early Years, 1865-1906*. California Living Books, 1980.

Natalie Jahraus Cowan. "Carville, San Francisco's Oceanside Bohemia." *California History* (Winter 1978/79).

Ira B. Cross. *A History of the Labor Movement in California*. University of California Press, 1935.

Brian J. Cudahy. *Cash, Tokens, and Transfers: A History of Urban Mass Transit in North America*. Fordham University Press, 1990.

A good introduction to U.S. transit history, with less information on Canadian transit, and almost none on Mexican. It includes a good explanation of why the conversions from streetcars to buses in the 1930s and '40s were *not* the result of a conspiracy by auto and tire manufacturers and oil companies.

William Deverell. *Railroad Crossing: Californians and the Railroad, 1850-1910*. University of California Press, 1994.

An informative book, but some readers may not be convinced by the author's contention that "...historians...engineered much of the 'Octopus' understanding of Southern Pacific hegemony in California life and politics...."

Franklin Hichborn. *"The System" as Uncovered by the San Francisco Graft Prosecution*. James H. Barry, 1915.

George W. Hilton. *The Cable Car in America: A New Treatise upon Cable or Rope Traction as Applied to the Working of Street and Other Railways*. Revised Edition. Howell-North Books, 1982. Reprint. Stanford University Press, 1997.

Essential information on cable cars, as well as horsecar and early streetcar service.

William Issel and Robert W. Cherny. *San Francisco, 1865-1932: Politics, Power, and Urban Development*. University of California Press, 1986.

Kenneth T. Jackson. *Crabgrass Frontier: The Suburbanization of the United States*. Oxford University Press, 1985.

Edgar M. Kahn. *Cable Car Days in San Francisco*. Revised Edition. Stanford University Press, 1944.

Robert E. L. Knight. *Industrial Relations in the San Francisco Bay Area, 1900-1918*. University of California Press, 1960.

John McKane. "San Francisco." *Motor Coach Age* (November 1972).

John McKane and Anthony Perles. *Inside Muni: The Property and Operations of the Municipal Railway of San Francisco*. Interurban Press, 1982.

William D. Middleton. *The Time of the Trolley: The Street Railway from Horsecar to Light Rail*. Volume I. Golden West Books, 1987.

Nancy Olmsted. *The Ferry Building: Witness to a Century of Change, 1898-1998*. The Port of San Francisco, in conjunction with Heyday Books, 1998.

Anthony Perles. *Tours of Discovery: A San Francisco Muni Album*. Interurban Press, 1984.

Anthony Perles, with John McKane, Tom Matoff and Peter Straus. *The People's Railway: The History of the Municipal Railway of San Francisco*. Interurban Press, 1981.

Some observers believe that the four authors should have received equal credit for this indispensable history of Muni.

John E. (Jack) Perry Jr. and Robert P. Townley. Articles in *The Western Railroader*. "San Francisco Municipal Railway: Merger of 1944," Issues Nos. 286-287 (November and December 1963); "San Francisco Municipal Railway: 1950-64," Issue No. 300 (January 1965).

James J. Rawls and Walton Bean. *California: An Interpretive History*. Sixth Edition. McGraw-Hill, Inc., 1993.

Morley Segal. "James Rolph, Jr., and the Early Days of the San Francisco Municipal Railway." *The California Historical Society Quarterly* (March 1964).

David F. Selvin. *A Terrible Anger: The 1934 Waterfront and General Strikes in San Francisco*. Wayne State University Press, 1996.

Wald Sievers. *Steam Dummies of San Francisco*. Enlarged Edition. Reprint of articles in *The Western Railroader*, Issues Nos. 241-242-243 (January, February, and March 1960), with supplement.

Wald Sievers. Articles in *The Western Railroader*. "The Beginning of the Municipal Railway of San Francisco," Issue No. 311 (December 1965); "Municipal Railway of San Francisco, Part Two: Expansion — 1913 to 1915," Issue No. 335 (January 1968); "Municipal Railway of San Francisco, Part Three: Expansion — 1916 to 1928," Issue No. 338 (April 1968).

Charles A. Smallwood. *The White Front Cars of San Francisco*. Revised Edition. Interurban Press, 1978.

Its primary focus is on the vehicles, routes, and facilities of the Market Street Railway of 1921-1944, whose vehicles had a paint scheme with a patented white front.

Fred A. Stindt. *San Francisco's Century of Street Cars*. Published by Fred A. Stindt, 1990.

Lynn Thomas. *San Francisco's Cable Cars*. H.S. Crocker Co., Inc. [No publication date.]

James E. Vance Jr. *Capturing the Horizon: The Historical Geography of Transportation since the Sixteenth Century*. The Johns Hopkins University Press, 1990.

See especially Chapter 5, "Dealing with Space within the City."

Bill Yenne. *Southern Pacific*. Brompton Books Corp., 1985. Reprint. Smithmark Publishers Inc., 1994.