

\$1.50

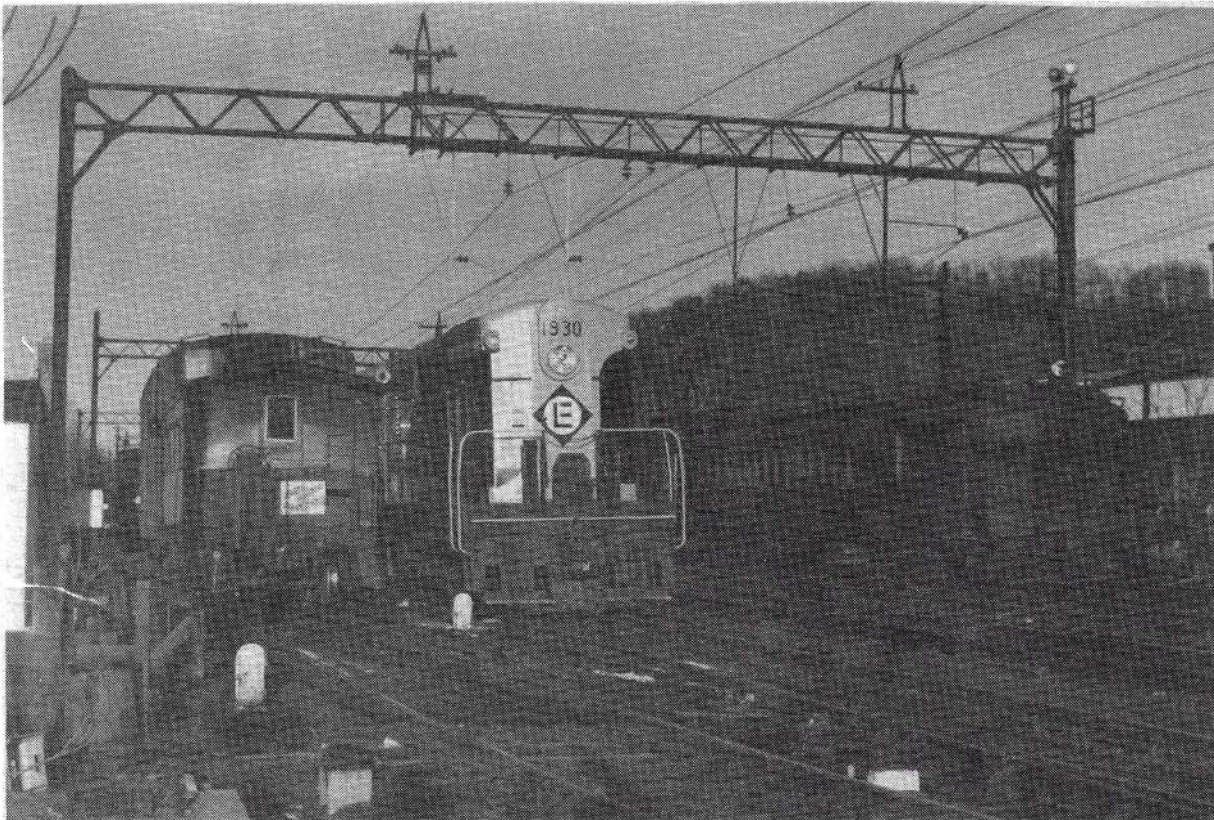


The Newsletter of the North Jersey Electric Railway Historical Society

Box 1770, Rahway, New Jersey 07065

Volume 8, No. 1

March, 1993



Combine 3406 took on a more valuable role for us when it became home to our generator. Although it was out of service and stripped of parts when we acquired it, the combine was still in service when this view was taken in Dover during the 1960s. *Collection of Frank S. Miklos*

DESTINATIONS is published several times a year by the North Jersey Electric Railway Historical Society. Distributed free to members in good standing: \$1.50 per copy to others. Regular membership is \$12 per year. For information about membership or publication sales write: North Jersey E.R.H.S. Box 1770 Rahway, N. J. 07065. Frank S. Miklos, Editor; Anthony J. Hall, Assistant Editor; Beverly Rodel and Neal Huff, Production Assistants.

NORTH JERSEY ELECTRIC RAILWAY HISTORICAL SOCIETY

Anthony J. Hall, President
Robert E. Landwehrle, Secretary

Robert E. Hooper, Vice President
Frank S. Miklos, Treasurer

Regular meetings of the North Jersey E.R.H.S. are held on the third Tuesday of each month (except July and August) at 7:30 P.M. at the Reed Center, 1670 Irving Street, Rahway, N.J. Entertainment featuring electric traction subjects is presented at each meeting.

MEMBERSHIP NOTES

We are encouraged by the quick response we have received to our dues renewal notice. Payment from one-third of our members were received in the weeks immediately after the mailing and more are coming in. Check the renewal notice enclosed with this issue to determine your status. This will be the last issue of **DESTINATIONS** to be sent to those who have not paid. Again we must thank the following members who included a contribution with their payment:

Michael Burshtin, William E. Christian, Jr., Ira L. Deutsch, Robert Diamant, Edward T. Gibbs, Gene D. Gordon, John B. Gutberlet, Dennis Hage, Alan Hannock, Neal Huff, Brian Hager, William D. Joyce, Jr., Gary Kleinedler, Alexander J. MacDonald, Daniel V. Marchese, Anthony C. Mazzella, William McKelvey, Jr., Garry M. Pace, S. David Phraner, Rev. Charles Reinbold, W. R. Rorer, Henry Ruschmeyer, Bruce Russell, Robert Sherwood, John M. Schluter, Leslie Sugai, G. Lester Whitfield, and John A. Yohannan.

Thanks to these and to all who continue their support of our activities through their dues payment.

Several readers have suggested that we welcome new members to our organization by publishing their names in **DESTINATIONS**. We agree that this is a good idea and therefore welcome the following individuals who have joined the North Jersey E.R.H.S. during the past year:

William J. Armstrong, Joseph F. Braun, Richard M. Cotton, Philip G. Craig, Ben Deutschman, Donald O. Eisele, Doreen Flori, John J. Grasso, Barker Gummere, Jr., Robert Gaul, Gary E. Kleinedler, Gary Madriss, Torin Reid, Paulette C. Rothenberg, C. R. Scholes, William Suss, Richard M. Wassmer, and Robert Yuell.

Since we took the opportunity to welcome new members, we also feel it would be appropriate to recognize those members who have belonged to the organization for five years or more:

Albert Ambrose, Herman Bachmann, John Blaney, Michael A. Blishak, John Brinckman, Michael L. Burshtin, Francis J. Capalbo, Charles B. Clancy, Jr., Ted Eickmann, Joseph F. Eid, Paul Espersen, Daniel T. Espy, Elmer W. Fry, Harold H. Geissenheimer, Michael Glikin, Gene D. Gordon, Dan Grobstein, John B. Gutberlet, Joseph A. Haas, Brian A. Hager, Anthony J. Hall, Peter Hasler, Norman W. Hosler, Jr., Gregory III,

William D. Joyce, Jr., Arthur M. Kallop, William J. Keeler, William F. Keigher, George A. Knopf, John E. Kopf, Robert E. Landwehrle, Derek K. Long, Alexander MacDonald, Joseph G. Madden, A. W. Mankoff, Daniel V. Marchese, Thomas G. McBride, William McKelvey, Jr., Frank S. Miklos, Thomas F. Moran, Benjamin Muckenhoupt, Norman Olsen, Stuart M. Palmer, S. David Phraner, Rev. Charles Reinbold, John H. Riley, Beverly Rodel, W. R. Rorer, Howard P. Rose, Bruce Russell, Henry Ruschmeyer, John M. Schluter, E. Wayne Scott, Robert A. Sherwood, Richard A. Shiels, Charles L. Simon, Edward C. Sosman, Philip E. Stevenson, Harold M. Tepper, Ben H. Tongue, Thorwald Torgersen, Arthur Ward, G. Lester Whitfield, and John A. Yohannan.

Thanks to all of the above for their many years of support.

The Year in Review

by Frank S. Miklos

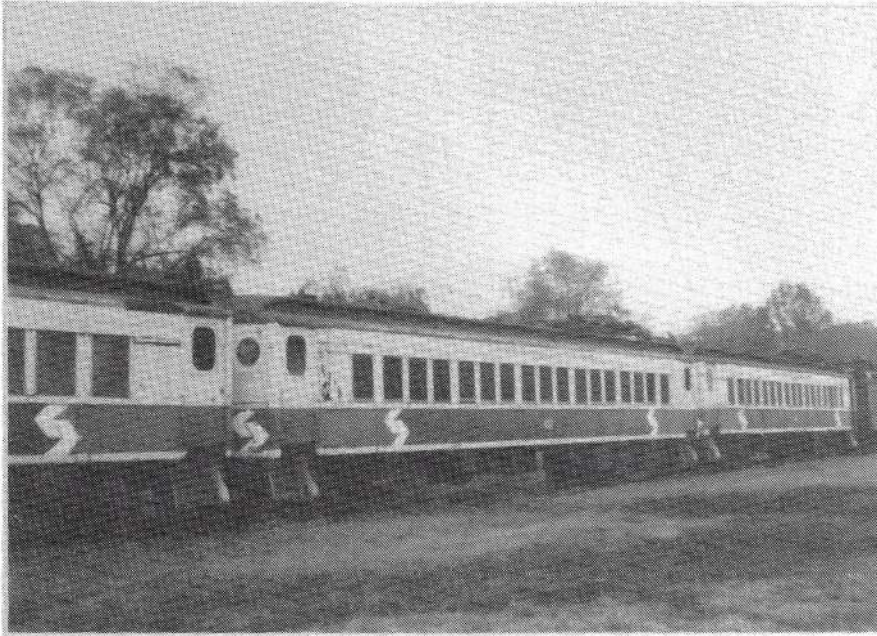
The Summer of 1992 was frustrating from the standpoint of car restoration. Rail fell on 8 of 13 weekends, and on at least one occasion we had worked for just over an hour when the clouds opened up and brought our work day to a quick halt. As a result of that experience we were forced to monitor the weather reports carefully and postpone work sessions if rain was mentioned in the forecast.

It was only in late August and September that the weather decided to give us a break, and we were able to dig into the car restoration work in earnest, although some work was accomplished earlier in the Spring and Summer on those rare weekends when the weather cooperated.

Our priorities this year were continued work on Pennsylvania Railroad MU 413 and the start of work on MU 437. Most of the tasks on 413 were performed by Bob Hooper who targeted our frozen walk over seats and traps. The seats had been bolted into a fixed position by the Penn Central in the 1970s and left that way until the cars were retired. Even though we removed the bolts shortly after we acquired the cars, they had been left in the same position for so long that they still would not move no matter how much tugging and pushing was done. Bob carefully lubricated each seat mechanism and gradually worked each one loose. This is one of those time consuming laborious tasks, that might often go unnoticed, but one that is very important to the restoration work. One of the seats had a broken roller and a new one was fabricated by Bob to make it functional again.

Half of the traps had also ceased to function. They could only be raised and lowered by sheer brute force usually involving an array of sledge hammers, crowbars and various other tool of persuasion. Bob disassembled the step mechanism and discovered that many of the problems were caused by a deterioration of the car body at the point where the traps were attached. This meant that the affected traps would have to be removed completely for the repairs to be made. The assistance of Tony Hall and myself were needed to lift the heavy diamond plate steel trap with its attached handrails. At one end of the car, the body was deteriorated enough to require fitting new pieces of steel to the structure to provide a place to fasten the trap mechanism.

Once again we had a problem with peeling paint on the exterior of 413, mostly because we had merely covered the old SEPTA paint job when we hurriedly prepared the car for the 1988 Hoboken Festival. From a cosmetic viewpoint the car looked good, but the paint underneath insisted on peeling, and each year since then, we have had to go back and redo sections of the exterior. Eventually all of the old paint may vanish, but in the meantime we have to look forward to our annual cosmetic touch up. With the aid of a newly purchased heavy-duty electric grinder, Tony Hall attacked the patches of peeled paint, applied a coat of primer to the exposed surfaces and returned the following week to put a final coat of red over the repaired areas. Plans called for the numerals to be applied to the panel that had been



Work has begun on restoring car 437. This view shows the car in its SEPTA paint scheme flanked by car 427 on the left and car 453 on the right. *Frank S. Miklos*

repainted, but again nature reared its ugly head two weeks before this year's Hoboken Festival and sent a drenching rain to kill our plans. The weather was more cooperative the following week and this small but important task was completed. As luck would have it, the car was assigned to a track at Hoboken where the other side of the car faced the platform, but if this work had not been completed, the car probably would have been positioned on the opposite track where all of the shortcomings would be in full view of the public.

Mention must also be made of the work that was done by Bob Hooper to ensure that 413 would remain watertight. He applied a sealant to the areas around the window sills that are susceptible to leaks. Any opening in the exterior of the cars that can allow water to enter, can result in a serious rust problem that can eat away at the structure of the car itself. The sealant should protect against this.

The interior of 413 also received a cleaning for the first time in years. Our friends at the Black River and Western donated an industrial-style vacuum cleaner along with a small kerosene heater. The vacuum was put to good use by Bob Hooper in cleaning the floor, seats, and other surfaces. This was topped off by a thorough scrubbing of those areas by Bob.

Work on car 437 involved the usual important roof preservation. Tony Hall, Bob and Tommy Landwehrle, Beverly Rodell, Perry Didriksen, and I spent several weekends scraping and priming sections of the roof, but we still have a long way to go. Some areas of the roof were scraped, but the bad weather set in before we could prime them, so a top priority this Spring will be tending to that task before further rusting takes place. I concentrated on stripping the clerestory and adjoining roof area. In working my way down the length of the car, I applied coats of paint remover to the side of the car from the letterboard to the window sills. The paint remover effectively took the paint off down to the bare metal with very little effort, so a coat of primer was applied to those surfaces. With luck we will not have

a problem with peeling paint of the outside of car 437 if we can easily remove the old SEPTA paint.

Thanks to a team effort, the move of the car to Hoboken became a reality. Much thanks must be given to Beverly Rodel who assisted us in numerous tasks, and provided jugs of lemonade on some especially hot days. While car 413 looks presentable, much remains to be done. The faded green-tinted windows make the car look dismal inside even on sunny days. Also some method needs to be found to provide interior lighting without blowing circuit breakers from outside power sources. In an effort to replace the windows more quickly, we have established a window replacement fund. Contributors can adopt a window for a \$20 contribution. To date the following members have participated in the program:

Doreen Flori, John Kopf, Derek Long, Phil Stevenson, Jim Tomczyk and Les Whitfield.

Anyone who wishes to contribute to this program can send a check for \$20 to us and indicate that you wish to adopt a window. All contributions are tax deductible.

With the 1993 work season approaching, we again appeal for volunteers to assist in our car restoration efforts. If more members would set aside just one day during the year to join us in a work session, we would make significant progress. Please call Tony Hall at 908-388-0369 if you are interested in doing some work on the cars. We can arrange for transportation to the work site. Any help we receive will be appreciated.

TROLLEYS: THE LONG ROAD BACK

Part 5

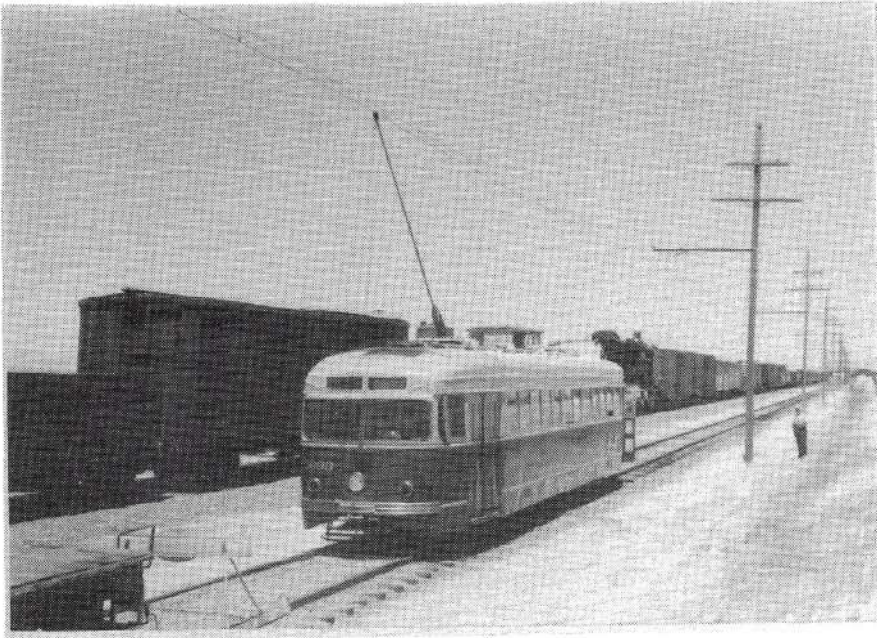
SAN FRANCISCO EXPANDS

by Frank S. Miklos

At the close of World War II public transit in San Francisco had much in common with the other major cities in California. They all had extensive networks of street railway lines operated mostly with older cars that were put to the test transporting millions of additional riders during the wartime years.

San Francisco differed from the other cities in one important respect. Except for the California Street Cable Company, the mass transit system in San Francisco was publicly owned. Until 1944, the privately-operated Market Street Railway Company still provided a major portion of public transit service in the city. During that year the city acquired the Market Street Railway Company and consolidated its operations with those of the San Francisco Municipal Railway, affectionately known as "MUNI". Most of the management positions in the merged transit system were filled with Market Street Railway personnel, and the MUNI's blue and gold paint scheme gradually disappeared under coats of the Market Street Railway's dark green paint. The famous white fronts which were a patented trademark of the Market Street Railway were replaced by a darker shade of cream, but aside from this, the transit system bore the imprint of the Market Street Railway Company. Despite the merger, not much changed from an operating viewpoint. Only a handful of Market Street cars saw service on MUNI's routes, and the only Market Street Railway route served by MUNI cars was the No. 8 line providing local service on Market Street. Some MUNI streetcar lines were also extended over Market Street Railway trackage.

The immediate postwar years saw a streetcar system that was in need of major rehabilitation.



San Francisco was a late entrant into the PCC market when it purchased ten double-ended units in 1948. Five cars were purchased in the late 1930s which were similar in appearance to PCCs, but with a different control system. The only survivor of those "Magic Carpet" cars is Car 1003 shown at the Rio Vista Railway Museum in 1989. Frank S. Miklos

Track and vehicles were badly worn out from the heavy usage they received during the war. Ten PCC cars were purchased by MUNI in 1948. They were of a double-ended design to meet the transit system's requirements, utilizing crossovers at most streetcar terminals. They joined the five streamlined "Magic Carpet" cars already on the roster which had modifications from the PCC specifications to avoid the requirement of paying patent fees. At one time MUNI's plans called for the purchase of over 300 PCCs, but this never came about.

Meanwhile, the cars from the Market Street Railway were even more deteriorated. MUNI hired a team of consultants to determine the future of the transit system. Several plans emerged, including one for a network of streetcar subways under portions of Market, Mission and Geary Streets. However, the final decision was heavily influenced by the recommendations of the General Manager of the New York City Board of Transportation. Colonel Sidney Bingham received permission from New York Mayor William O'Dwyer to serve as a consultant to the MUNI. Colonel Bingham was an advocate of replacing streetcars with buses, and was presiding over such a program on the Brooklyn trolley system. Another consultant was Colonel Marmion D. Mills who advocated motorizing most of the streetcar system. At one time Colonel Mills was employed as the regional sales manager for General Motors buses and was later President of National City Lines, a holding company which acquired numerous transit systems around the country. In most instances these transit companies saw most if not all of their streetcars replaced with buses shortly after they were acquired by National City Lines.

A \$20-million bond issue was approved by the voters in 1947 providing the funding for a

transportation program that would drastically change the character of San Francisco's mass transit system. Virtually all of the Market Street Railway streetcar lines were abandoned along with several of the MUNI car lines. Motor buses initially provided the replacement service, but the availability of cheap electric power led MUNI to install trolleybuses on most of the routes. Several hundred of these vehicles were purchased from three different manufacturers namely: Twin Coach, Marmon Harrington and the St. Louis Car Company.

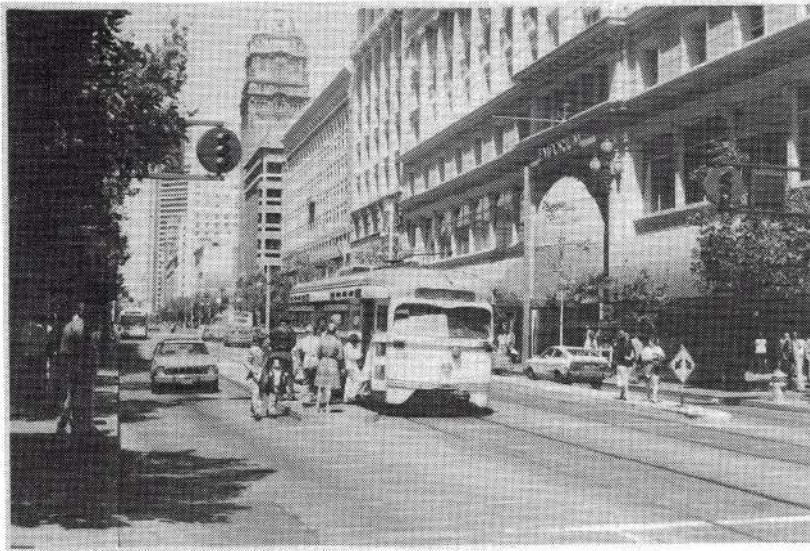
The installation of trolleybuses brought significant changes to Market Street which was famous for having four sets of streetcar tracks. The extra tracks were removed, restoring the appearance of that thoroughfare to the way it was prior to the establishment of the San Francisco Municipal Railway. However, the new arrangement saw the MUNI cars operating in the center of the street on the former Market Street Railway trackage. Thus, while most vestiges of the Market Street Railway were eliminated, the most important legacy of that transit operator was to survive into the future on the very street from which the transit company got its name.

While some of MUNI's streetcar lines were replaced with trolleybuses, there was a group of routes whose operating characteristics and ridership precluded such a move. Three of the lines (K-Ingleside, L-Taraval, and M-Ocean View) ran through the Twin Peaks Tunnel, while the N-Judah line utilized the shorter Sunset Tunnel. Included in the routes for retention by MUNI was the J-Church line which ran entirely on the surface, but which had a long section of private right-of-way. Until December, 1956 MUNI retained streetcars on Geary Street, but pressures from the city to make that thoroughfare a one way street in the downtown area and to widen it in the outlying areas led to the conversion of that service to buses.

In 1952, MUNI purchased 25 PCCs from the St. Louis Car Company. Significantly, this was to be the final American order for that type of car. Local regulations barred the acquisition of second-hand equipment, so MUNI could not take advantage of the market for used PCCs such as those which were obtained by Public Service for the Newark City Subway. The 25 cars acquired new by MUNI differed from their earlier purchase in many respects. They were of a single-end design and had more sparten interiors than most of the earlier PCC models. By 1952 the price of a new PCC had escalated so much that a double-ended car with its extra set of controls and doors on both sides, would be prohibitive. It was cheaper for MUNI to alter its physical plant with wyes at terminals and turnback locations than to invest in double-ended cars. Other features such as interior paneling and crank operated windows were eliminated in favor of windows that were lifted manually and held in place with spring clips. The 25 new PCCs were equipped with a back-up controller behind the rear seat and front poles for use when the cars were running in reverse. In reality, the front pole was normally only used for the downtown turnback at 11th and Market Streets where a fast reverse move through a congested intersection was required. At outer terminals and turnbacks, the regular pole was used, since the motormen could proceed more cautiously when backing up.

The fleet of PCCs were not sufficient to provide all of the service, so the traditional older cars (dubbed "Iron Monsters") continued to see a lot of use. In 1957 the St. Louis Public Service Company had a number of surplus PCCs for sale. By acquiring these cars, the MUNI could retire the older rolling stock and have a fleet consisting entirely of modern cars. The regulation against obtaining second-hand equipment was lifted, clearing the way for MUNI to lease 66 PCCs from St. Louis. The cars were not purchased because MUNI was short of capital funds at that time. Several years later a purchase agreement was signed and MUNI took title to this equipment. Delivery of these cars allowed the MUNI to scrap the "Iron Monsters". The oddball "Magic Carpet" cars saw limited service but were gradually phased out as they encountered major mechanical problems. An additional four PCCs were acquired from St. Louis in 1962. Their arrival followed the retirement of the "Magic Carpet" cars although they were not billed as replacements for those units.

With its fleet of PCCs, the MUNI streetcar system entered a period of stability. Then in 1963, the voters in the Bay Area approved a referendum authorizing a rail rapid transit system linking San Francisco with Daly City on the south and Richmond, Concord and Fremont on the east side of the bay.



For many years PCC cars were part of the scene on Market Street. Car 1126 obtained second-hand from St. Louis picks up passengers at Powell Street who are headed outbound on the L-Taraval line.

Frank S. Miklos

The new rail system would run through San Francisco in a subway under Market and Mission Streets. A key element in the project was the inclusion of a MUNI streetcar subway under Market Street which would connect directly to the Twin Peaks Tunnel. In the downtown area the subway would be on two levels, with the streetcars on the upper level and the rapid transit trains on the lower level.

Consultants were hired to help implement these proposals under the jurisdiction of the Bay Area Rapid Transit District (BART). Their recommendations called for the elimination of all streetcars. Rapid transit trains would use the upper level of the Market Street subway and the Twin Peaks Tunnel, terminating underground at St. Francis Circle about a half-mile beyond the west portal of the tunnel. Buses would replace the streetcars on the J-Church and the N-Judah lines. To accomplish this, the Sunset Tunnel would be paved for the use of buses.

As soon as the plan was released, it was the subject of a public outcry. Riders on the streetcar lines using the Twin Peaks Tunnel objected to the loss of a one-seat ride. The street-running portions of their routes would be replaced with buses that would feed the rapid transit line at St. Francis Circle. Riders on the J-Church and N-Judah lines objected to the loss of their streetcars which would not run through the Market Street subway as they had been led to believe. They would have the option of riding downtown on buses operating along the surface of Market Street or transferring to the subway trains at one of the stops along the way. They protested that this was not what was approved by the voters when the referendum was placed on the ballot. They hired attorneys to take legal action blocking the proposal and forcing the retention of the streetcar lines. Meanwhile BART continued to work on the design of the Market Street subway in order to maintain its construction schedule. The controversy raged on for more than a year.

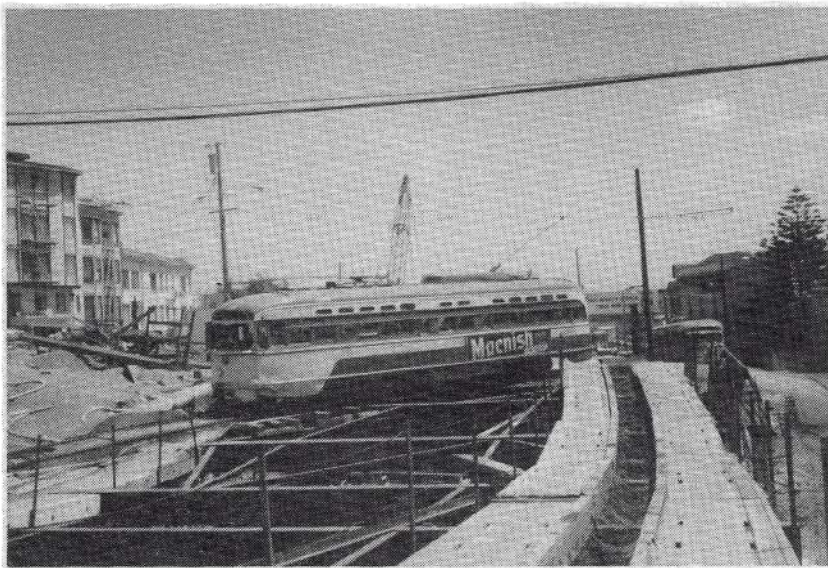
Finally BART demanded an answer to the question so that it could award construction contracts. Mayor Joseph Alioto reviewed the situation and gave in to the demands of the riders by declaring that all five streetcar lines would be retained and operated into the upper level of the subway as originally proposed. The decision should have resolved all matters, but in reality it opened the door to even more questions. BART designed the downtown subway on the presumption that the recommendations of the consultants would be followed. The stations were designed with high-level island platforms and there was no provision for a turning loop, so MUNI's fleet of PCC cars could not be used.

A new generation of streetcars would have to be acquired that were tailored to the requirements of the subway. In compliance with a directive from the Urban Mass Transit Administration (UMTA) in Washington, MUNI joined with Boston to purchase a fleet of new cars from the Boeing Vertol Company. MUNI's light rail vehicles (LRVs) were modified to conform to the operating characteristics of the subway. They were equipped with stairwells that could be raised or lowered for operation with high-level platforms in the subway and low-level use on city streets. MUNI's LRVs were not air conditioned, but were equipped with destination signs that could be changed electronically by the operator. Like the Boston cars, they were double-ended and equipped with couplers for multiple-unit operation. Unlike Boston, MUNI's LRVs had automatic train control for operation in the subway, a higher seating capacity, and different interior decor.

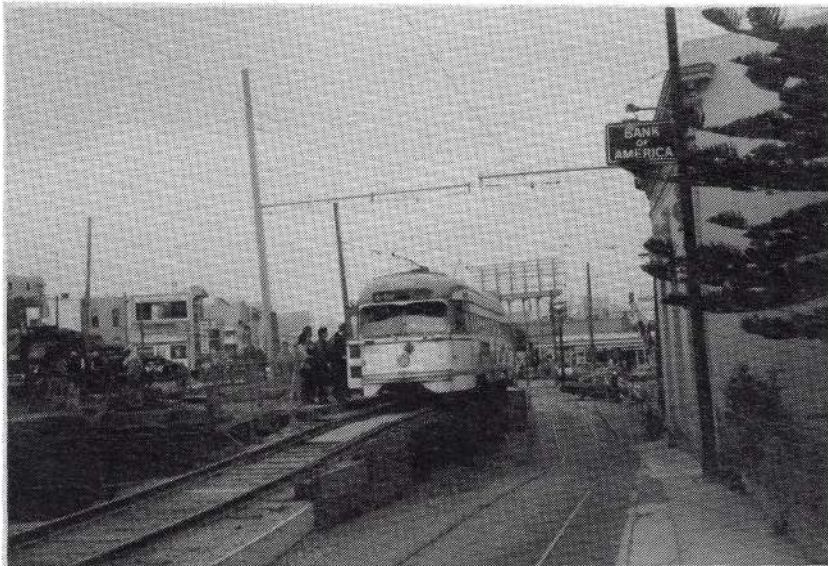
The construction of the subway under Market Street brought with it a dramatic impact on the surface of that thoroughfare. To facilitate the construction, BART proposed shutting down the operation of streetcars. Once again the riders rose up in protest and demanded that full service be provided during the construction period. They were fearful that if the streetcar service was suspended for a period of years, the transit agencies would be tempted to make the replacement bus service permanent on one or more routes. A compromise was reached which allowed the streetcars to shut down after 8 P.M. on weeknights and all day on weekends as required for construction. Temporary trackage was installed on Market Street at construction sites during the years when the street was being excavated. Trackage on upper Market Street between Church Street and the east portal of the Twin Peaks Tunnel was abandoned, and the streetcars were rerouted via Duboce, Church and 17th Streets to gain access to the tunnel. Temporary ramps were built in the vicinity of the Eureka Street station to connect with the tunnel after the east portal was removed to facilitate the connection between the tunnel and the new Market Street subway. For a brief period, the shortened Eureka Street station platform was used as an underground car stop, but this was subsequently discontinued when surface platforms were built at the new tunnel ramps.

Because the running time for the rerouted streetcars was longer than the run directly up Market Street, MUNI was unable to meet the service requirements with its fleet of PCC cars. They arranged for the purchase of eleven ex-Kansas City PCCs from Toronto. These cars were put into service still in their Toronto red and cream paint scheme which coincidentally matched the colors that MUNI adopted for its recently delivered fleet of buses. The ex-Toronto PCCs were never repainted into the MUNI green and cream colors, although the lower halves of the cars were given a fresh coat of red. They served out their years on MUNI with the original Toronto paint fading away between the roofs and the belt rails. Similarly, none of the older MUNI PCCs were repainted into the red and cream colors. Thus the two Missouri cities that operated PCCs saw some of their equipment sharing service in San Francisco. The same situation occurred in Philadelphia a few years earlier, when the Philadelphia Transportation Company purchased second-hand PCCs from Kansas City and St. Louis.

With a commitment to the continued operation of streetcars, the physical plant of the system was extensively modernized. New facilities for the LRVs were constructed on the site of the Elkton Maintenance Shop. A new bus garage was constructed closer to downtown to replace the Ocean Bus Garage which was next to the Elkton Shops. Ancient structures which occupied those premises since the days of the Market Street Railway were demolished to make way for a modern LRV storage yard and shops. Since this new facility was adjacent to the Balboa Park BART station, new platforms were constructed to serve as a terminal for the K-Ingleside line. Plans called for that line to be extended from the loop at Ocean and Phalen Streets, a short distance to the west. The extension would use trackage that



Streetcar service was maintained during subway construction. These views show some of the temporary trackage that was required to connect Twin Peaks Tunnel with the Market Street subway. *Above:* PCC 1164 cuts diagonally across the construction site on temporary decking. *Below:* Close clearances on the south side of Market Street required this double-level arrangement for cars to pass near Castro Street. *Frank S. Miklos*



was in place for cars pulling in and out of service from the nearby Geneva streetcar barn.

MUNI also rebuilt most of the trackage including about a mile of rail on Judah Street that was raised slightly above the regular roadway to provide a reservation for streetcars. Although the transit riders like the new arrangement, motorists objected to it because it interfered with the movement of automobiles, and the idea was not expanded. The overhead was rebuilt for Pantographs and the power supply system was upgraded.

In addition to all this, MUNI announced plans to extend the M-Ocean View line to the Balboa Park station. The proposal would reduce MUNI's operating cost by providing a direct route to the new LRV depot. The plan was a turning point in the history of trolley operations in the United States. For the first time in many decades, tracks would be installed in the paving of a street to introduce a new streetcar operation. The track that was built on Broad Street between Plymouth Street and San Jose Avenue marked the first time that streetcars used that portion of the street. However, the portion of San Jose Avenue between Broad Street and Balboa Park saw rails returning to a roadway that was once the route of the Market Street Railway's San Mateo interurban line. While the original interurban trackage had been removed, some of the original trolley poles had remained in place and were used once again for the overhead on the new extension.

The new Boeing cars were introduced on April 23, 1979 on a shuttle service that ran between The Balboa Park station and the west portal of the Twin Peaks Tunnel. Most of this was over trackage of the K-Ingleside line which continued to operate over its regular route between Ocean and Phalen loop and downtown. The shuttle brought full-time service beyond the loop to Balboa Park, although revenue passengers were always permitted to ride down there on cars running to and from Geneva carhouse located diagonally across from the new Balboa Park loop. The shuttle service did attract a fair number of riders. Aside from those who were actually riding locally to points directly served by the shuttle, others rode the cars out of curiosity. Passengers for downtown could transfer to PCCs of all three lines at the west portal of the Twin Peaks Tunnel. However, the operation of the shuttles was essentially to train the motormen and to expose the equipment to the demands of revenue service. The routing gave the cars easy access to the shops if a problem was encountered. The new LRVs were delivered in an attractive orange and yellow paint scheme which was chosen for the entire MUNI fleet. Some of the ex-St. Louis and regular MUNI PCCs were repainted into those colors during the transitional period.

The really big test for the Boeing cars came on February 18, 1980 when weekday service on the N-Judah line was rerouted into the Market Street subway. The new service was an immediate hit with the passengers who saw their travel times to downtown greatly reduced. The other four streetcar lines continued to operate on the surface of Market Street using PCCs. Weekend service on the N-Judah line was operated with PCCs because the subway was not open.

On June 11, 1980 the link between the Market Street subway and the Twin Peaks Tunnel was opened. Boeing shuttle cars were operated between St. Francis Circle and the Embarcadero. The M-Ocean View line was temporarily replaced with buses to permit its right-of-way west of St. Francis Circle to be used as a layover for the shuttle cars. Work equipment and materials for use in the reconstruction of the track in the Twin Peaks Tunnel were also stored on the right-of-way beyond the shuttle layover point. The track work was done in the evenings after the streetcar service had shut down. The K-Ingleside and L-Taraval lines were through routed. Passengers from those routes could transfer to the Boeing shuttle cars for downtown at either St. Francis Circle or the west portal of the Twin Peaks Tunnel. Ironically, this was similar to the type of service that was recommended by BART's consultants and which was rejected by Mayor Alioto, except that PCCs were used instead of buses on the K and L lines. Passengers tolerated this arrangement because they knew that it was only a temporary inconvenience. The connection between the Twin Peaks Tunnel and the Market Street subway brought with it new stations at Church Street and Castro Street. They differed from the other underground stations in having outside platforms and balcony-style mezzanines.

The completion of work on the reconstruction of the Twin Peaks Tunnel enabled the service to be restored to the M-Ocean View line on August 30, 1980. At that time the new extension to Balboa Park



Plans for upgrading San Francisco's streetcar system called for rebuilding most of the street trackage onto raised reservations. Only this short section of Judah Street received that treatment. Further construction of this type was halted in response to the objections of motorists. *Frank S. Miklos*

was placed into service using PCC cars. A few weeks later on September 10, 1980 the Boeing shuttle service was discontinued. The Boeing LRVs replaced the PCCs on the K-Ingleside line which then provided direct service between Balboa Park and the Embarcadero. The M-Ocean View line was through routed with the L-Taraval line using PCCs.

On December 17, 1980 all service west of the Twin Peaks Tunnel was converted to LRV operation, with direct service to downtown San Francisco via the Market Street subway. From an operating standpoint, this would be one of the most complicated arrangements ever attempted. Since the Market Street subway was designed for rapid transit trains, the terminal at the Embarcadero was equipped only with a pair of scissors crossovers at the approach to the station. This is the traditional layout for most rapid transit systems including New York, and poses no problem when only one or two services are terminating there. In San Francisco the terminal would now have to serve four streetcar lines. The solution was to treat the services using the Duboce Street subway portal and the services using the Twin Peaks Tunnel as just two lines while running through the subway. On regular rapid transit systems two lines can be turned at a stub terminal if each one maintains a four-minute headway. This will allow a train to arrive and depart every two minutes where the two lines share trackage. New York's Times Square sees trains on the Flushing Line running on a two-minute headway in the rush hours. This essentially involves two services since there are both local and express trains during that period.

San Francisco accomplished this by coupling up cars on the K, L, and M lines into a single train for operation through the subway. This is done at the west portal of the Twin Peaks Tunnel where an

impressive new high-level platform station was constructed allowing up to four LRVs to be coupled together. When the plans for the new station were announced, there was some opposition from the residents of the area who regarded the original facade of the portal as a landmark. Despite these objections, MUNI was authorized to proceed with the project, and the new station is attractive enough to have received praise from citizens who had originally opposed it.

Cars arriving at West Portal Station pull up to the front end of the platform and wait for authorization to proceed. If at least four minutes have passed since the last streetcar departed the station, the single car may be allowed to go. Otherwise the car may have to wait from one to four minutes. Any other cars arriving in the station during that interval will be coupled to the lead car. A single train consisting of cars from the K-Ingleside, M-Ocean View and L-Taraval lines may be coupled together for the run downtown. On the outbound trip the cars will remain as one train, but specific cars will be assigned to individual routes. Digital signs on the platforms display the route for each car at the appropriate boarding location. On a three-car train the first car is usually assigned to the L-Taraval line; the second car to the K-Ingleside line, and the third car to the M-Ocean View line. The L-Taraval car will uncouple from the train at the West Portal Station and proceed over its regular route, while the remaining two cars will remain coupled to St. Francis Circle where they will uncouple and proceed over their respective routes. In the case of a four-car train, two of the cars will usually uncouple to run as single units over their individual routes, with the balance of the consist continuing as a two-car train for operation over the remaining line. Sometimes the second car of a two-car train will be turned back along the route before reaching the outer end of its line. It may even be coupled to an inbound car if one is approaching the location where the outbound car turns back. On one trip to San Francisco I rode a two-car train on the L-Taraval line. The second car was uncoupled at a crossover just beyond Sunset Boulevard. After it crossed over to the inbound track it waited for an approaching inbound L car to couple up behind it. Meanwhile, the car I was on continued to the outer terminal of the L line at the Zoo where it was coupled to a car that was laying over. Motormen may start their runs with one car and remain with it for an entire day, or they may swap cars with other motormen when they arrive downtown. The whole operation is unique, and looks impossible on paper, but somehow it works!

Problems do occur if there is a breakdown in the subway. If one track at the Embarcadero terminal is occupied with a disabled train, the movement of inbound cars can be slowed to a crawl. Despite the bad reputation of the Boeing cars, MUNI manages to keep them running under very difficult conditions.

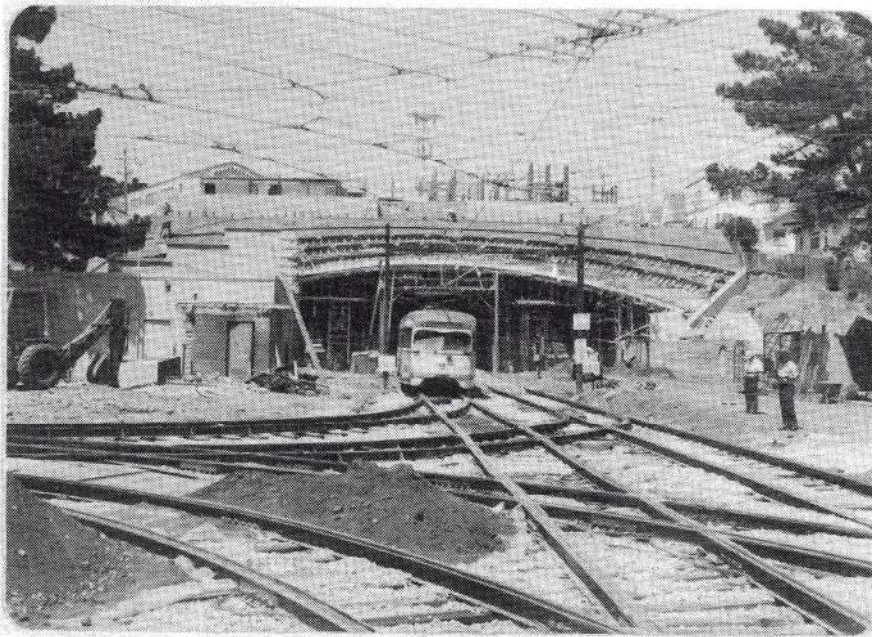
After the K, L, and M lines were through routed into the subway, only the J-Church line continued to run with PCCs on the surface of Market Street, except for weekends when the subway was shut down. Saturdays and Sundays brought a feeling of *deja vu* to the riders of the streetcars who once again had PCCs on all routes.

Ridership on MUNI's streetcars increased dramatically after they began running into the subway. Despite the faster running time, the fleet of 100 Boeing cars was barely able to handle the crowds. Downtown office workers discovered that they could go home for lunch and arrive back to their jobs in plenty of time. Before the subway was in full operation MUNI was confronted with a car shortage, so they were forced to continue with PCCs on the J-Church line. Seeking relief from the situation MUNI turned to Boeing Vertol and agreed to acquire thirty of the cars that Boston had rejected. They were equipped with the movable stairwells that are essential for the high-level platforms in the subway. The cars retain their basic Boston interiors including the simulated wood paneling and a modified pattern of the two and one seating. Delivery of these cars which are numbered in the 1300-series enabled MUNI to reroute the J-Church line into the subway, and to provide full time subway service on all five routes. The J-Church cars are coupled to N-Judah cars at the top of the Duboce Street ramp to the Market Street subway following the same four-minute headway pattern employed at the West Portal Station.

In 1983 the famed cable car lines were closed for a complete rebuilding. The physical plant of the cable car system was badly deteriorated from years of heavy use and there were growing fears about the safety of the operation. City officials were well aware of the appeal of the cable cars to tourists and



The modernization of MUNI's streetcar system is dramatically displayed in these views of the west portal of the Twin Peaks Tunnel. *Above:* The original facade of the portal can be seen in this view of an ex-Toronto/Kansas City PCC passing two ex-St. Louis PCCs shortly before the reconstruction work began. *Below:* Everything shown in the photo above is being rebuilt in this view of the same area. *Frank S. Miklos*

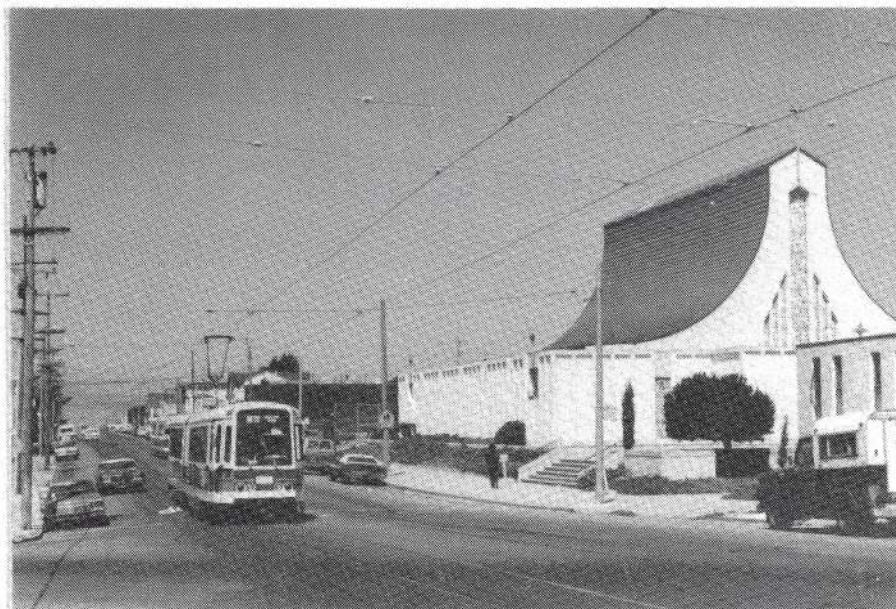




The new West Portal Station has a graceful design that blends in well with the surrounding community. One of MUNI's double-ended PCCs is shown leaving this facility shortly before it opened to LRV service. *Frank S. Miklos*

they were concerned about a decline in the number of visitors to the city when word of the cable car shutdown was circulated. A citizens' group proposed that rail service be restored to the unused trackage on Market Street. While this idea received support from city officials, many expressed doubts about the number of tourists who would be attracted to that service if it was operated with PCC cars. Despite the years of service and the fact that they were no longer in use, they still looked too modern to the average tourist. For the service to survive it would have to use something other than just PCCs. At the time, two older cars were on the property for excursion service. MUNI's original car No. 1 was preserved because of its historical significance, and "Iron Monster" No. 178 was on loan from the nearby Rio Vista Railway Museum. These two cars were to be the centerpieces for the Market Street service, but more vintage cars would have to be rounded up for the operation to succeed. At that time, Melbourne, Australia was retiring some of its oldest cars and many of them were being imported to the United States where their American-style trucks and electrical gear were welcomed by trolley museums and others considering vintage trolley operations. Seattle had acquired a group of these cars for use on a trolley line along its waterfront, so San Francisco took advantage of the opportunity to acquire two Australian cars for use on the proposed Market Street line. When news of the project spread, additional cars found their way to MUNI. The business community provided support by sponsoring the acquisition and restoration of many vehicles.

By the time that the cable car system was shut down, more than enough cars were available for the Market Street Trolley Festival as it came to be known. Regular fares were charged including transfers, and the vintage service proved popular not only with tourists, but with regular MUNI riders



An outbound M-Ocean View car approaches the turn onto San Jose Avenue shortly after the opening of that new extension. The old terminal was located at the top of the hill in the background. *Frank S. Miklos*

as well. The success of the Trolley Festival led to calls for retaining that service even after the cable cars were back in operation. Their pleas were favorably received by Mayor Diane Feinstein, and the historic cars returned to Market Street every summer while she was in office. Since then budget cuts have limited the operation of the historic fleet to holidays and charters.

With a trolley subway that was running at capacity and historic cars on the surface of Market Street, the electric streetcar had solidified its role in San Francisco's transit picture. New plans were drawn up for the expansion of the streetcar system. One called for the extension of the J-Church line to Balboa Park through an area known as the Bernal Cut which was originally designed for a rail line. With a commitment to retain streetcars on the surface of Market Street, there was a review of plans to make that service more effective. A year-round service to be known as the F-Market Street line would be operated. Rather than overtax the vintage cars through such intense use, it was decided to retain a small fleet of PCCs for use during most months of the year, with the vintage cars limited to the tourist season and special events. An inspection of MUNI's stored PCCs showed severe structural deterioration, so plans were made to acquire some refurbished Philadelphia PCCs instead.

To make the Market Street line even more effective, plans were made to extend the streetcars to Fishermen's Wharf using trackage along the San Francisco waterfront. Tracks will also be restored along upper Market Street where the streetcars will replace the No. 8 trolleybus route. This will essentially completely restore one of the old Market Street Railway lines. MUNI also plans to build a ramp from the subway at the foot of Market Street. This will provide a new terminal on the surface with loops for the five underground trolley lines replacing the awkward two-track stub terminal at the Embarcadero



LRVs were tested in the Market Street subway prior to the opening of that facility. This view shows the Civic Center Station at Eighth and Market Streets. Note the raised foundations for the tracks, a reminder of earlier plans for the operation of rapid transit trains.

Frank S. Miklos

subway station. Plans also call for a possible extension of the LRV service to the Caltrains commuter rail terminal at Fourth and Townsend Streets, with a yard nearby for storing the cars until the evening rush hour. Track connections at the foot of Market Street may also allow for direct service between the Caltrains Depot and Fishermen's Wharf. Long range plans call for a possible restoration of rail service along the Geary Street corridor as well as a possible line to the east along Third Street. There is even talk of a route that would branch off the proposed Geary Street line and operate across the Golden Gate Bridge to Marin County.

The extension of the J-Church line to Balboa Park through the Bernal Cut was completed in 1990, but revenue service is limited to rush hours when cars are running to and from the depot. Not enough cars are available for full-time service. MUNI recently placed an order with Breda for the purchase of 35 new LRVs, with an option for 20 more, but even these may not be enough. The Boeing cars have served San Francisco well in one of the world's most demanding transit environments, and this has been catching up with them. Recently as much as one-third of the fleet has been out of service for repairs, forcing MUNI to suspend rush hour trips on the K-Ingleside line. Shuttle buses are operated between Balboa Park and the West Portal Station where passengers can connect with L and M cars. The Philadelphia PCCs are enroute to San Francisco with a stop at M K Industries where they are being rebuilt and equipped to accommodate wheelchairs. It seems certain that more LRVs will have to be acquired just to keep the existing system running. If things don't improve MUNI may be forced to run the PCCs on the J-Church line and reroute that service to the surface of Market Street during peak periods. Any further expansion of the system is certain to require even more cars.



The extension of the J-Church line through the Bernal cut saw a parade of the vintage trolleys in conjunction with the 1992 N.R.H.S. Convention. *Frank S. Miklos*

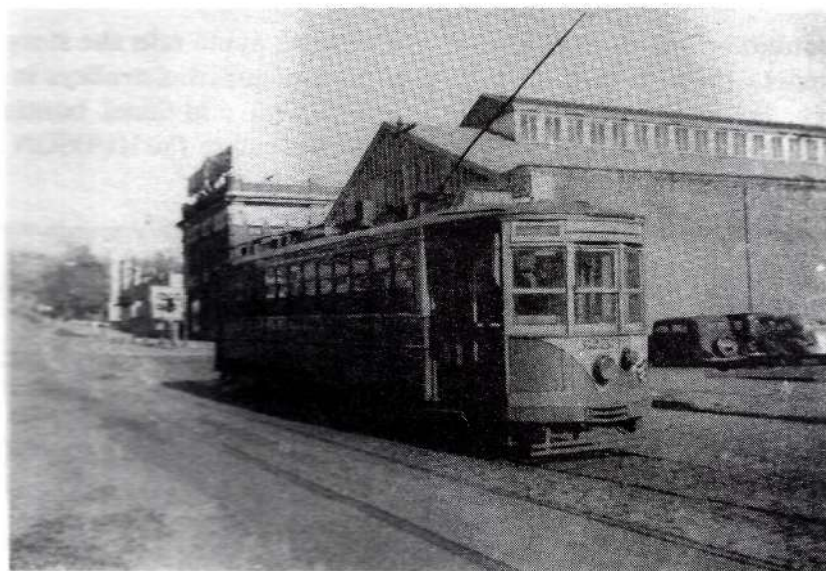
As the fleet expands, one must recall the proposal for purchasing over 300 PCCs that was made in the late 1940's. With its planned new routes and heavy ridership, San Francisco's streetcar requirements may well see MUNI boasting a fleet of more than 300 cars in the not-too-distant future.

PUBLICATION NOTES

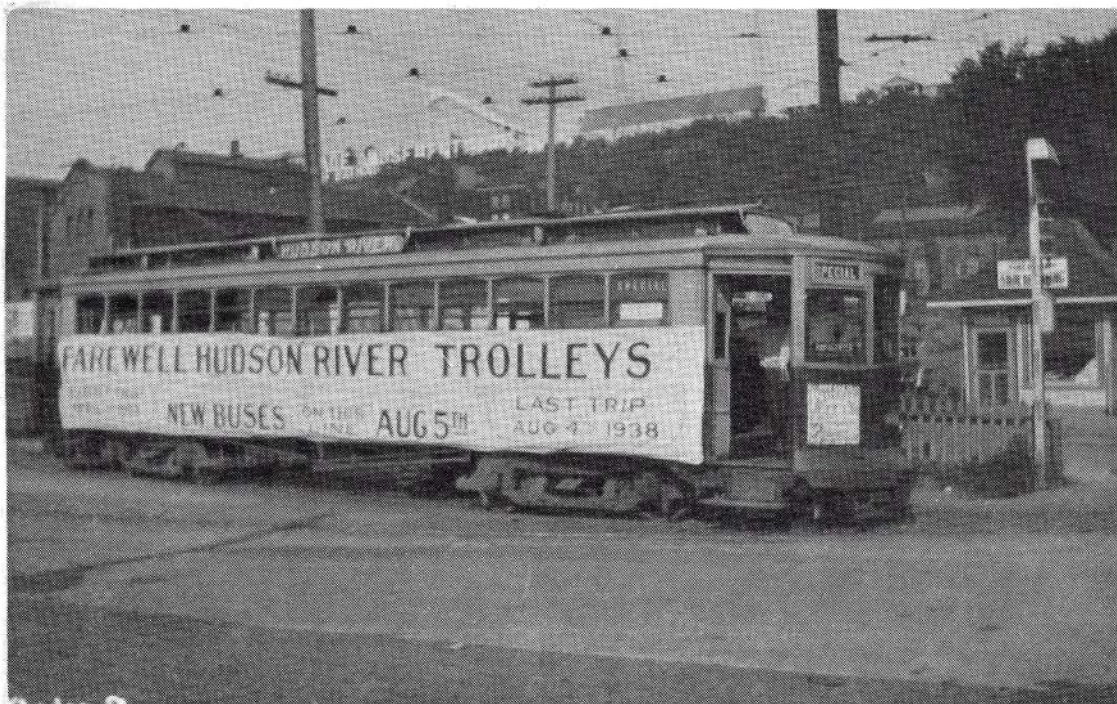
At twenty pages, this is the largest issue of **DESTINATIONS** yet published. In addition to this, our goal is to increase the number of issues published this year. As always, we welcome articles, photos, and other items from our members. Recently Neal Huff provided a number of items of historic interest for publication. Chief among these were copies of stock certificates from various American traction systems. Many of these featured very elaborate engravings of the cars that were operated by the company that issued the certificate. We hope to reproduce some of these engravings in **DESTINATIONS** from time to time. An engraving from a Trenton Street Railway Company stock certificate may be seen on the next page. For those who are interested in originals of these certificates, there are dealers such as American Vignettes, P.O. Box 155, Roselle Park, N.J. 07204 who offer these items for sale. These are also frequently found at flea markets and railroadians shows. The engraving used on the stock certificate from the Trenton Street Railway Company shows a closed car towing an open trailer. Note the use of center poles with bracket arms--an arrangement more appropriate to Atlantic City.



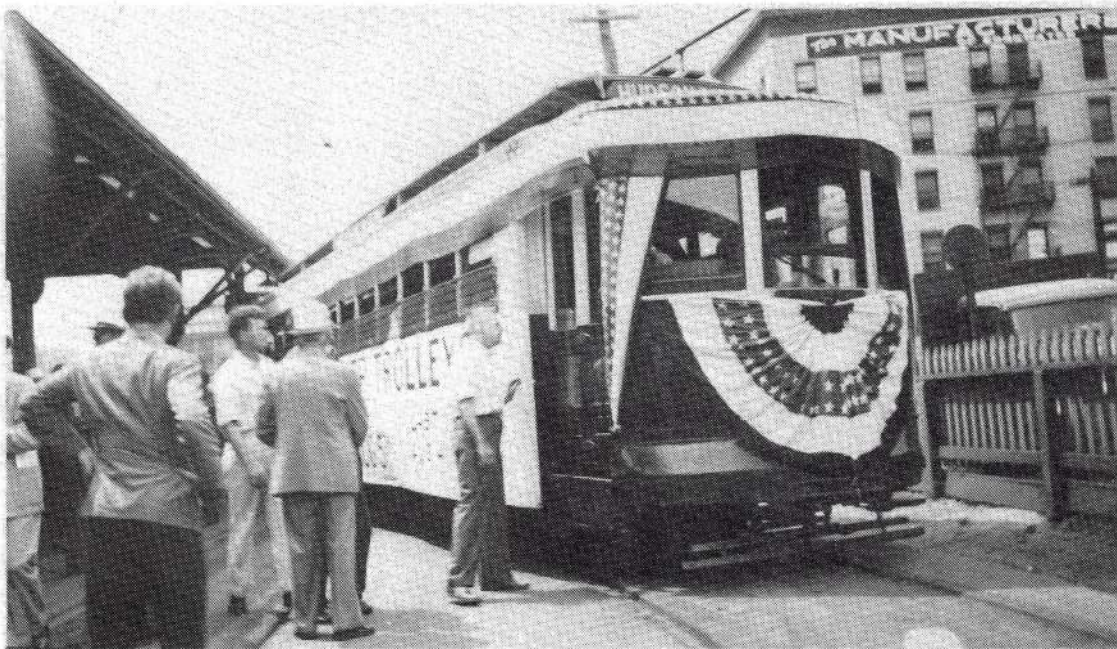
A Scene From the Past



In the last issue of *DESTINATIONS* we showed car 8009 in service on the BLOOMFIELD line. Equally unusual was the operation of a 3200-series car on that route. This view shows car 3253 at Bell Street in Montclair. Curiously the roof sign of this car also reads BLOOMFIELD AVE rather than BLOOMFIELD. *Collection of Frank S. Miklos*



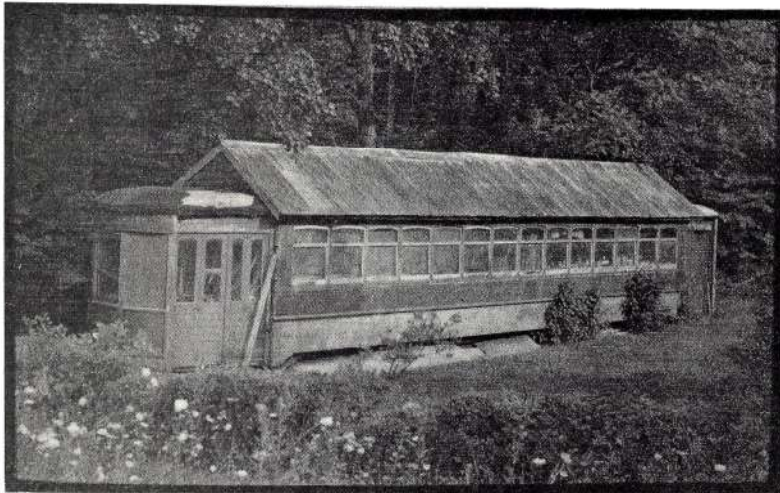
The banner on the side of the car in the above photo tells the story as this year marks the 55th anniversary of the abandonment of trolleys in Bergen County. Below: The same car is adorned with additional bunting as it prepares to depart from Edgewater for the last run of the HUDSON RIVER line. *Richard H. Young photos.*



THE 2651 SOCIETY

SPRING,
1972

RESCUE & RESTORATION PROJECT IN PROGRESS FOR SOLE SURVIVING PUBLIC SERVICE CAR OF ITS TYPE

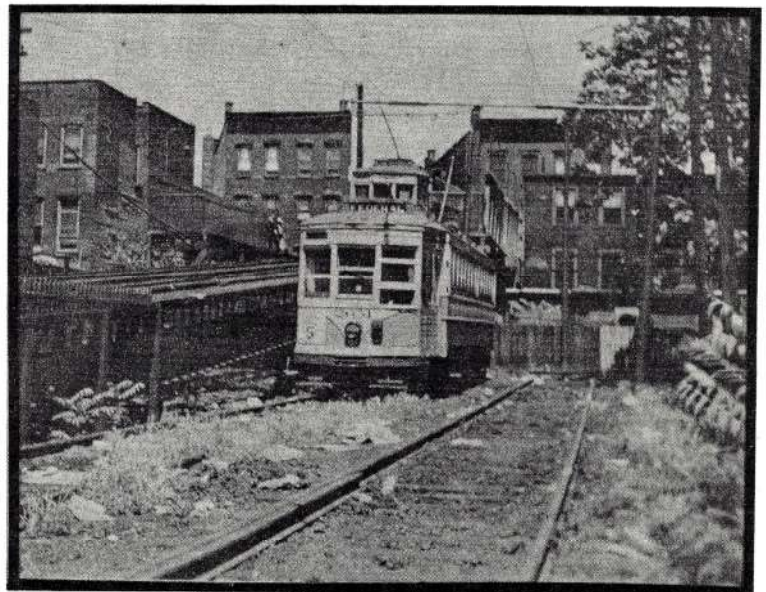


Car #2651 Today.

Car #2651 has languished unprotected from the elements since terminating its active career on the Federal and South Kearny lines of the once sprawling Public Service Railway system of New Jersey. A group has been formed with the sanction of The National Railway Historical Society, North Jersey Chapter, to arrange for the transportation of the car to the ~~Magee Museum~~ and for its restoration and operation on ~~their private truck~~.

Built at the Public Service Newark shops in 1917, the car first ran on the Orange and Mount Prospect lines. During World War II, #2651 and a vast fleet of similar cars joined the defense effort on the Federal line, carrying thousands of workers to the vital shipyards on the North Jersey waterfront, where the needs of the Nation's Naval Power were met.

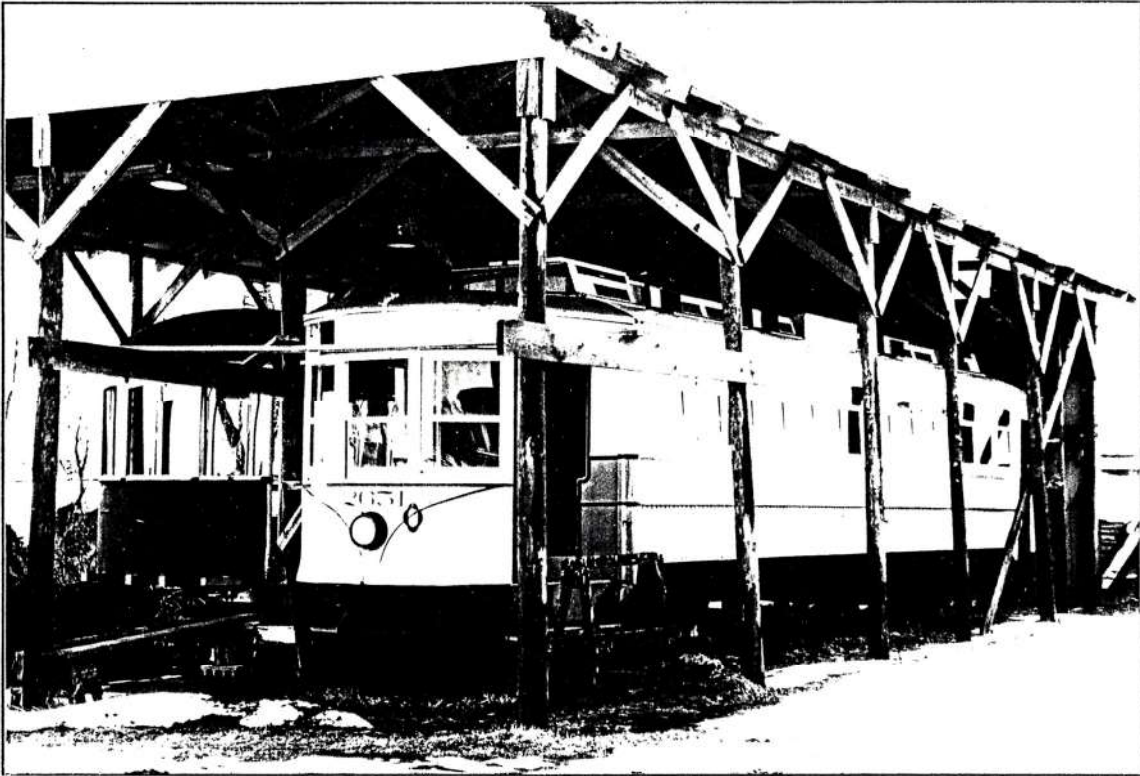
Won't you please join with us in our effort to retain this particularly distinctive example of New Jersey's trolleys, this important reflection of a past era? Your greatly appreciated contributions will enable us to take immediate steps toward our goal of restoring #2651 to its original appearance and operating condition. Use the coupon below to accompany your donation so that we can keep you informed of our progress.



Car #2651 in Service.

To: THE 2651 SOCIETY 756 BRYANT STREET, RAHWAY, NEW JERSEY 07065

END OF THE LINE?



Car 2651 shown in 1982 photo by Bruce Russell

The continued preservation of the 2651 will require substantial repairs to the protective shelter at Ringoes which has seriously deteriorated in recent years. We estimate the total cost of necessary repairs to be in excess of \$5000.

Since we no longer rely on the personal contributions of the same few individuals, we are making this appeal to ALL members and friends of the NJERHS to contribute substantially to the 2651 Preservation Fund. This will insure that the car can be preserved in New Jersey until the parts for its completion become available. There are only TWO equally painful alternatives to continued preservation in our state; continued preservation in someone else's state; or, no preservation at all.

Already much of the restoration work performed over the last twenty years has been eroded. Since we do not propose to stand idly by and watch the car return to the sorry condition it was in when first discovered in 1971, we must now look to those who share our appreciation by contributing to the preservation effort in a serious way.

To those who have already contributed over the years, especially the Black River and Western Railroad, we say "Thank you and well done!" But, unfortunately, the sum total of all the considerable efforts thus far invested have not been adequate to ensure the future survival of the car in New Jersey.

This is, then, a **call to arms!** With substantial support from people like you, who understand the significance of our electric rail heritage, 2651, the last Newark-built Public Service street car surviving intact in New Jersey, will be preserved for present and future generations.

GIVE! GIVE NOW! GIVE UNTIL IT HURTS!

OR, UNTIL IT MAKES YOU FEEL GOOD!

YES!

I am proud and happy to contribute to the 2651 Preservation Fund!

\$50 _____ \$100 _____ \$500 _____ \$1000 _____ Other _____

Name _____

Address _____