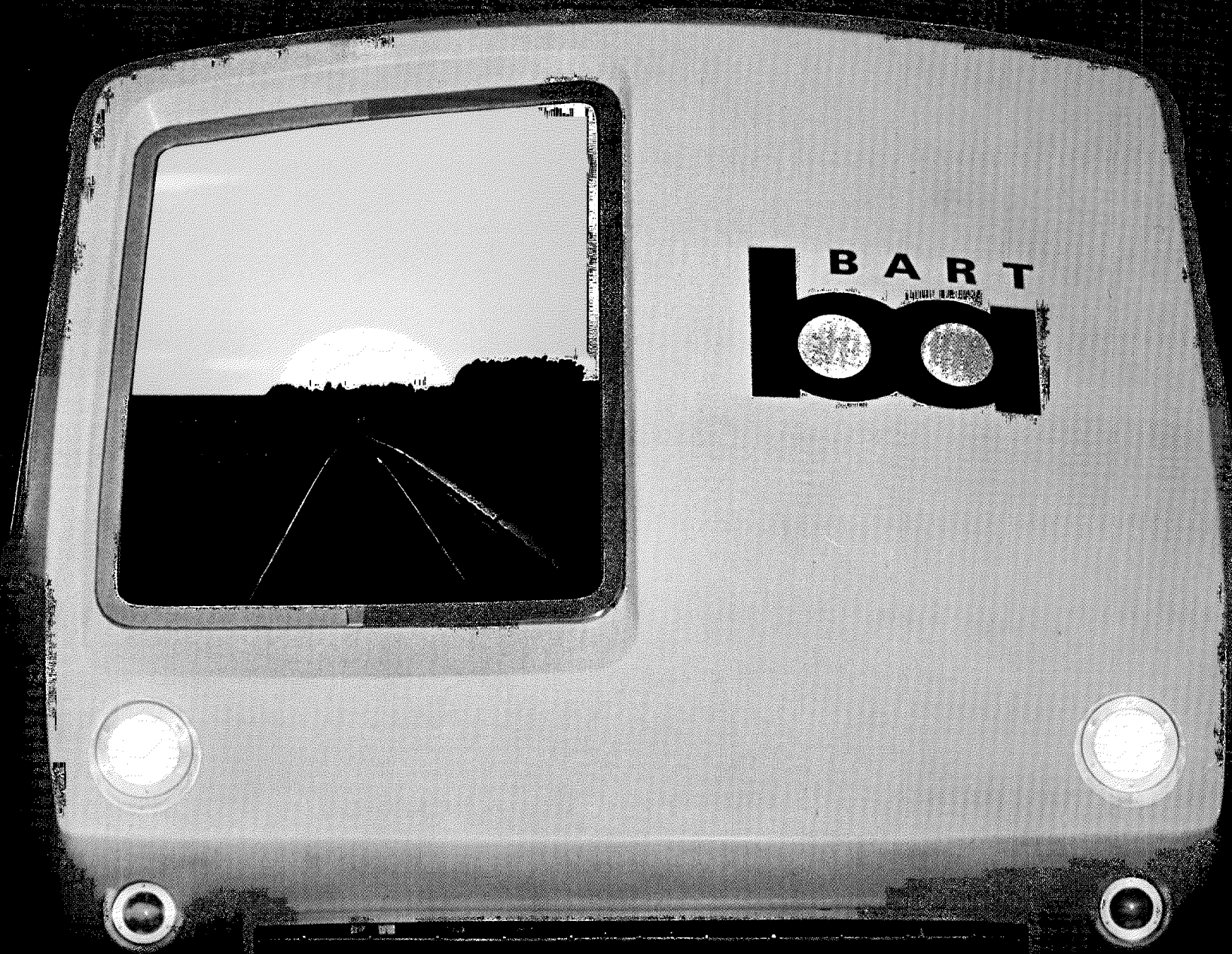


**A  
bright  
new day  
for the  
Bay Area**

# BART



**A bright new day for the Bay Area**

**Published by Bay Area Rapid Transit District, 800 Madison, Oakland 94607**

An advertising supplement to: San Francisco Examiner & Chronicle, Oakland Tribune, Alameda Times Star, Hayward Daily Review, Fremont-Newark Argus, Livermore Herald News, Concord Transcript, Contra Costa Times, Richmond Independent, Berkeley Daily Gazette.

# We finally made it... Thanks for waiting!

It's been a long time coming, but now BART's off-and-running. It's running because the taxpayers of San Francisco, Alameda and Contra Costa Counties had the foresight to approve a \$792 million bond issue in 1962. It's running because of the individual city and county staff members who worked so hard to make it happen. And it's running because of the city and county, state and federal leaders who helped us overcome so many unforeseen hurdles. All deserve a sincere "thank you".

## Birth and Growth

The last ten years have been a period of well-publicized hurdles and highlights. But BART really began back in 1951 with the formation of the nine county San Francisco Bay Area Rapid Transit Commission. The commission was assigned the task of making a comprehensive study of the Bay Area's transit needs. Parsons-Brinckerhoff—the "PB" of PBTB, our consulting engineers—made the feasibility study. Its recommendations resulted in the state legislature's creation of a five-county rapid transit "District." The District's job was to develop a workable plan for a high speed, rapid transit system and, upon voter approval, construct and operate it. Nicknamed "BART," it burst upon the scene in 1957, full of enthusiasm — and a staff of eleven.

The first order of business was to tell the public what we were planning and what progress we were making. Some of the early hands made as many as five speeches a night to any homeowner's group or service club that would listen. One information officer traveled from San Francisco to Half Moon Bay, and gave his presentation solely to the janitor who opened the school auditorium.



by B. R. Stokes,  
General Manager

## From Five Counties to Three

In the Spring of 1962, Marin and San Mateo Counties withdrew from the proposed district. But Alameda, San Francisco, and finally, Contra Costa stood firm. The measure was placed on the November 6 ballot. We needed 60 percent approval of a measure that asked the voters to build and operate a three-county, 75-mile rapid transit system, and to tax themselves to the tune of \$792 million. On November 7 late returns pushed the "yes" vote over the 60 percent mark. The final margin was 61.2 percent, a paper-thin edge, but then no other local public works project of this magnitude had ever made it on the first ballot.

The ballots had hardly cooled before a taxpayers' suit was filed challenging the legality of the District and its contract with the joint venture engineering firms. Although the District won its case, it was a bittersweet victory for BART: the lengthy trial caused a six-month delay.

In June of 1964, President Lyndon Johnson arrived in Concord with a flotilla of helicopters, blowing dust over some 30,000 people gathered at the site of the Diablo Test Track. The President touched

The Fall of 1965 was not a very bright one for BART. Only two bids came in for the downtown Oakland subway construction. The lowest was \$14 million *over* our engineers' estimates. So PBTB divided the contract into smaller packages, got more bidders, and eventually brought the project within budget. But this cost us almost a year in construction time.

## Money Headaches

BART's reserves were being eroded by an annual inflation rate of close to 7 percent. Several communities asked for changes in the basic plan, so we relocated 15 of our 34 stations and improved their architecture and landscaping. All to the good of the system, but hard on the treasury.

In August 1966 we received our first Federal construction grant. This eventually amounted to nearly \$200 million in Federal aid for everything from landscaping and car purchases to technical studies on extending the network. Construction on both the Oakland and San Francisco subways began at the end of 1967, and in 1968 BART received a \$28 million grant from the U.S. Department of Transportation to help develop and buy its trains.

## The Siege of Sacramento

While all this was going on, our directors and staff beat a path to Sacramento. They urged legislative relief to make up a fund deficit pegged at \$150 million. Construction had taken almost \$700 million and we faced the prospect of giving the Bay Area the world's first ghost system, rather than the rebirth of mass transportation.

Finally, on April 8, 1969, Governor Reagan signed a law temporarily increasing the sales tax in the three BART counties

from 5 to 5½%. It was a banner day for BART. Two days later the final section of the trans-bay tube was lowered into place. And, in July, we awarded a \$67 million contract for 250 streamlined cars.

## The Light at the End of the Tunnel

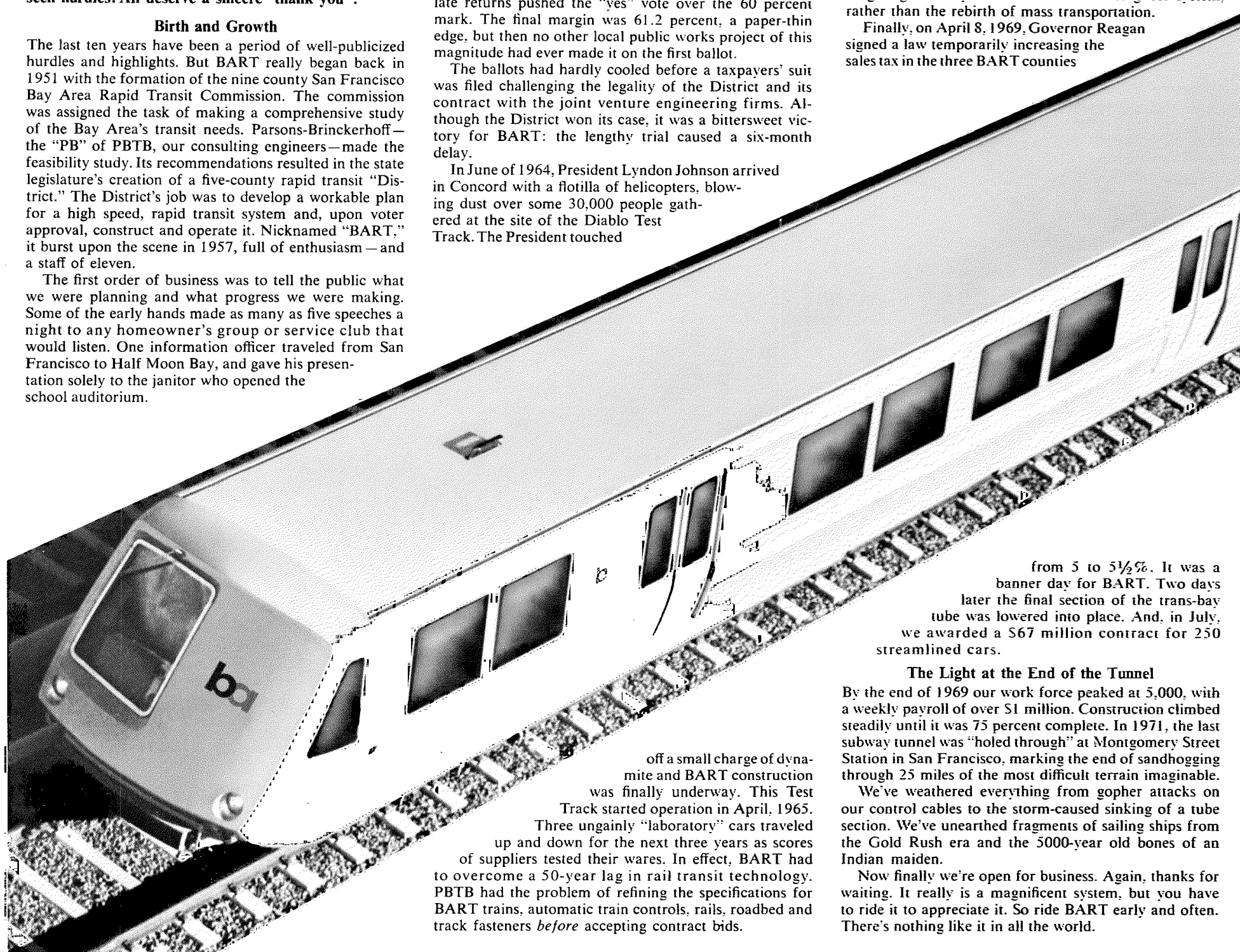
By the end of 1969 our work force peaked at 5,000, with a weekly payroll of over \$1 million. Construction climbed steadily until it was 75 percent complete. In 1971, the last subway tunnel was "holed through" at Montgomery Street Station in San Francisco, marking the end of sandhogging through 25 miles of the most difficult terrain imaginable.

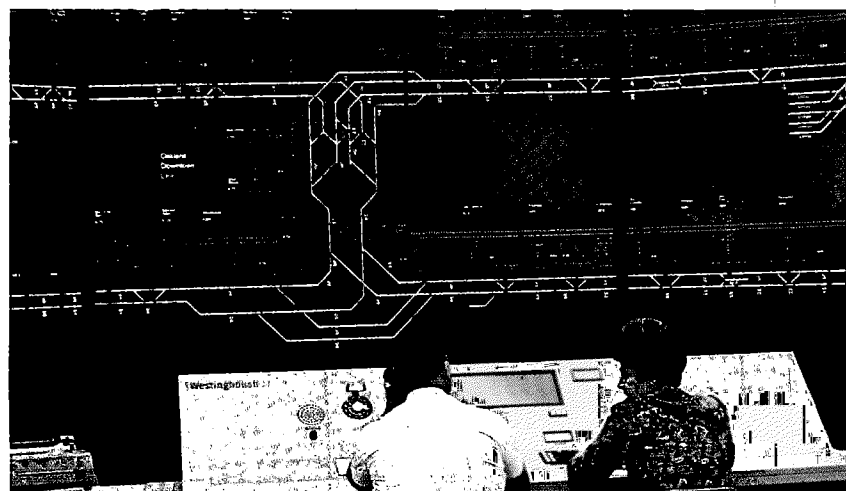
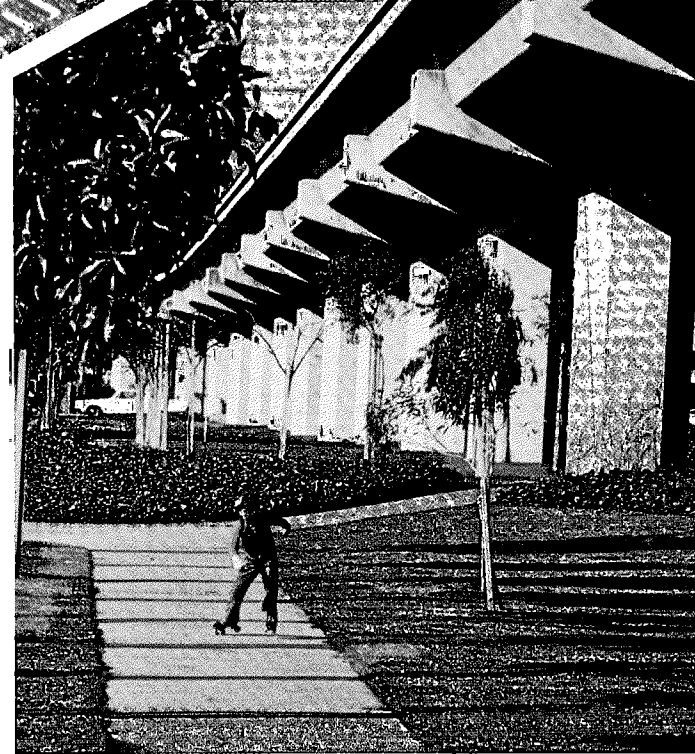
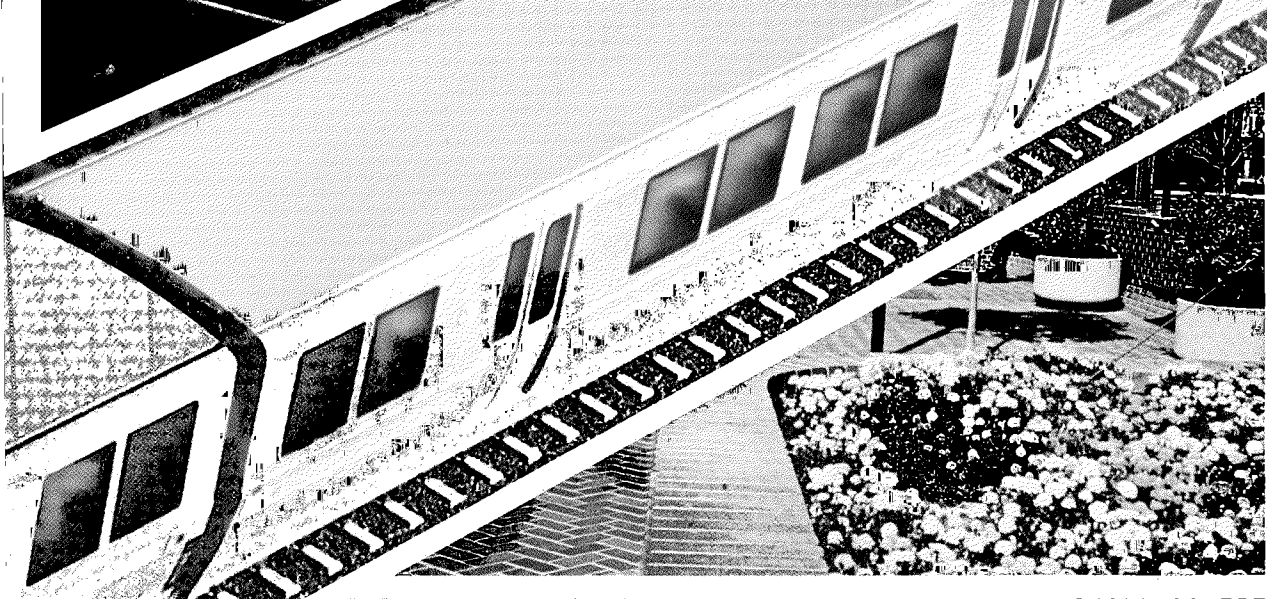
We've weathered everything from gopher attacks on our control cables to the storm-caused sinking of a tube section. We've unearthed fragments of sailing ships from the Gold Rush era and the 5000-year old bones of an Indian maiden.

Now finally we're open for business. Again, thanks for waiting. It really is a magnificent system, but you have to ride it to appreciate it. So ride BART early and often. There's nothing like it in all the world.

off a small charge of dynamite and BART construction was finally underway. This Test Track started operation in April, 1965.

Three ungainly "laboratory" cars traveled up and down for the next three years as scores of suppliers tested their wares. In effect, BART had to overcome a 50-year lag in rail transit technology. PBTB had the problem of refining the specifications for BART trains, automatic train controls, rails, roadbed and track fasteners *before* accepting contract bids.





# “The only thing missing is the clickety-clack”

Engineers, planners, architects and financial experts have invested hundreds of thousands of man-hours and 1.4 billion dollars making BART a reality. But, as far as the Bay Area commuter is concerned, all that is so much water over the dam. What they—and everyone else wants to know is “What’s it like to ride BART?” The only real way to find out, of course, is to buy a ticket and see for yourself. But, since BART is now running on only one of its legs, many people have not yet had the opportunity. So here—in words and pictures—is what to expect:

First, we have tried to make our cars every bit as comfortable as yours. You’ll find wall-to-wall carpet underfoot, extra wide foam padded seats and tinted picture windows that take up almost the whole side of the car. There’s year-round air-conditioning and heating too, and special recessed ceiling lights that ‘focus’ on your newspaper—not on your eyes.

Each car comfortably seats 72 people, with a generous aisle down the center. There are no overhead straps or luggage racks (there’s room for packages beneath each seat) and advertising posters are confined to the areas beside the doors and at the end of each car. You can follow your progress or see where a transfer of trains is necessary on any of the car’s four large route maps.

## What about the ride?

It’s smooth, relatively silent and very fast... top speed 80 mph, 42 mph average *including stops!* But missing, along with the clickety-clack, is the swaying and jiggling you expect on fast-moving trains. BART’s engineers developed their own version of a ‘wide track’ stance to stand up to Bay Area westerlies. Rails are spaced 9½” wider than the world-wide standard 4’8½”. And, to see that the satiny ride is maintained, BART’s entire 75 miles of track can be adjusted in ⅛” increments whenever the slightest wobble is detected.

To make sure the trains run on time, their stops, starts and speed are controlled from BART’s computer center, but every train will have a Train Attendant who can take over manual control should it become necessary. Passengers can communicate with him through an intercom system located at the end of each car.

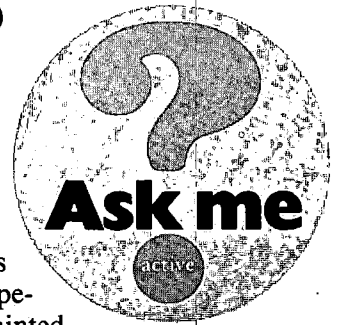
But, the most satisfying part of a BART ride, people tell us, is whisking along next to a bumper-to-bumper Nimitz at 80 miles an hour.

And that, after all, is what BART is all about.





# Got a question?



If you're in a BART station and you want to know which bus goes where—or what time the last train leaves for Fremont—or anything else you think we can help you with, just ask anybody wearing this button. These BART people have been specially trained to help the public get acquainted with the system as smoothly as possible.

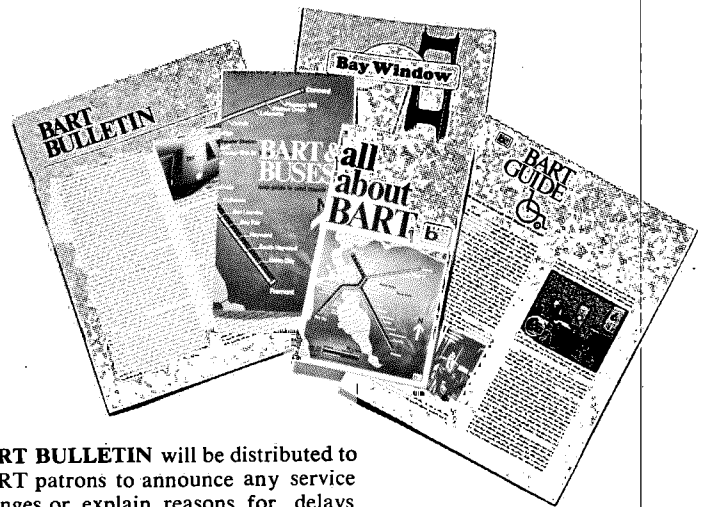
If you are *not* at a station you can get the same kind of help by dialing your area's three number prefix and the four letters B-A-R-T:

Oakland & Berkeley	465-BART	Richmond & El Cerrito	236-BART
Fremont & Union City	793-BART	San Francisco	
Hayward & San Leandro	783-BART	& Daly City	788-BART
Walnut Creek, Pleasant Hill & Concord			933-BART

BART's information center operates daily. There are bilingual Spanish and Chinese speaking operators on duty from 8 to 5.

So if you want to get from here to there in the Bay Area and are not sure how to go about it, just ask. We're happy to help.

## BART PUBLICATIONS



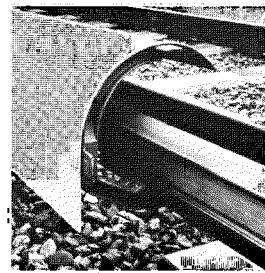
**BART BULLETIN** will be distributed to BART patrons to announce any service changes or explain reasons for delays or other problems.

**BAY WINDOW.** A monthly newsletter for passengers about activities, destinations and events of interest in the Bay Area and how to use BART to enjoy them. To be distributed free in stations.

**BART & BUSES.** A comprehensive map guide to transit travel in the Bay Area. Details coordination of BART routes and bus service, includes schedules of both AC Transit and San Francisco Muni.

**ALL ABOUT BART.** A small folding pamphlet answering most questions about how to use BART. Available in English, Spanish and Chinese editions through BART stations, banks participating in ticket sales, chambers of commerce, hotels, bus depots and the like.

**BART GUIDE.** English and Braille, with information on BART's installations and procedures to aid the handicapped.

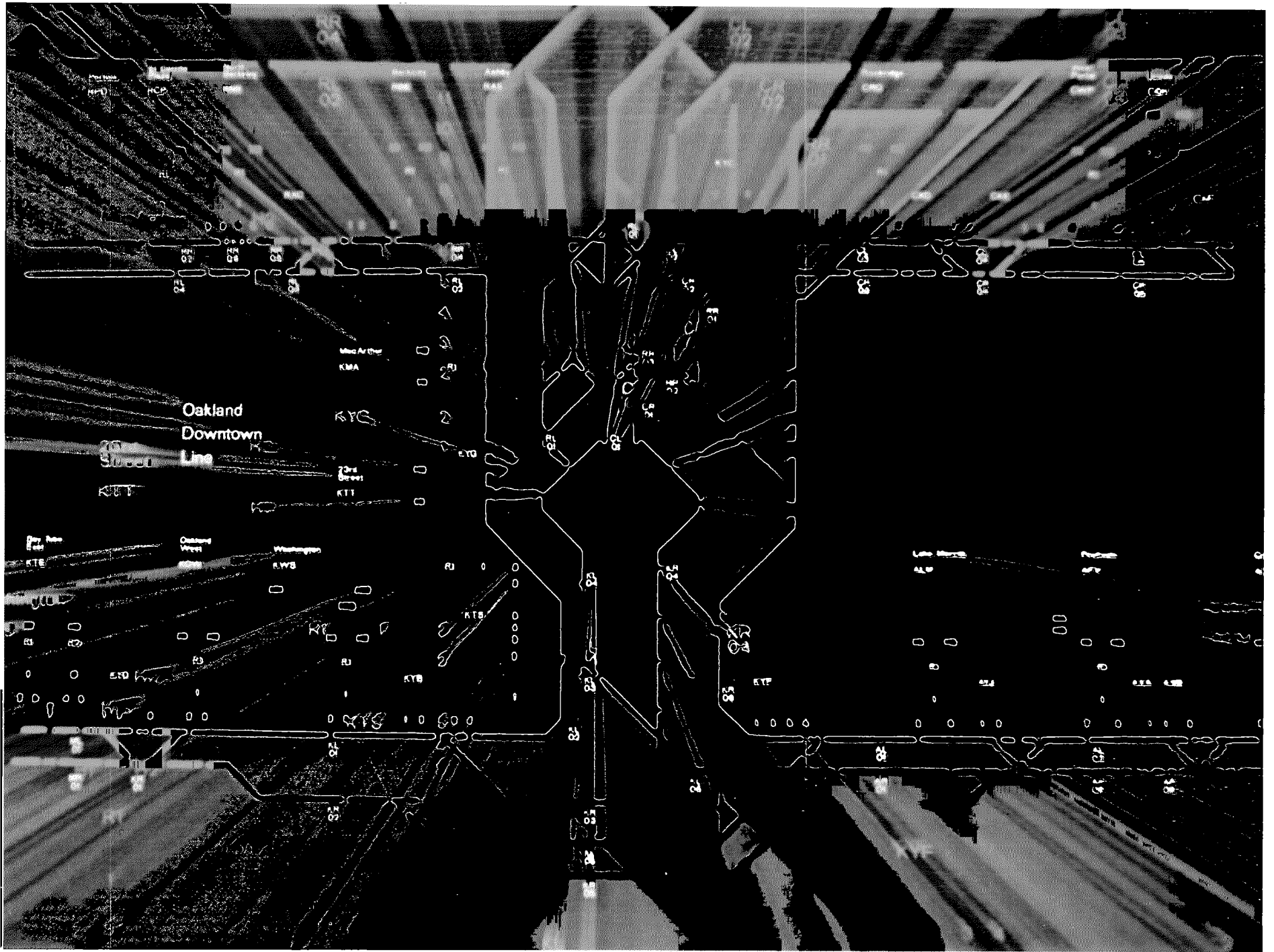


## The 3rd Rail

### A word of caution

BART trains run on two rails, with another rail alongside which carries the electric power. This 3rd rail packs 1,000 volts—enough to drive a 700 foot train at 80 mph!

As you've probably noticed, all BART's surface routes are fenced off from the public. For added safety the 3rd rail is partially covered with a protective shield. But you can help make the system even safer by telling your children to stay well away from BART tracks at all times. The 3rd rail doesn't *look* dangerous but it can inflict serious or fatal injury to anyone who touches it.



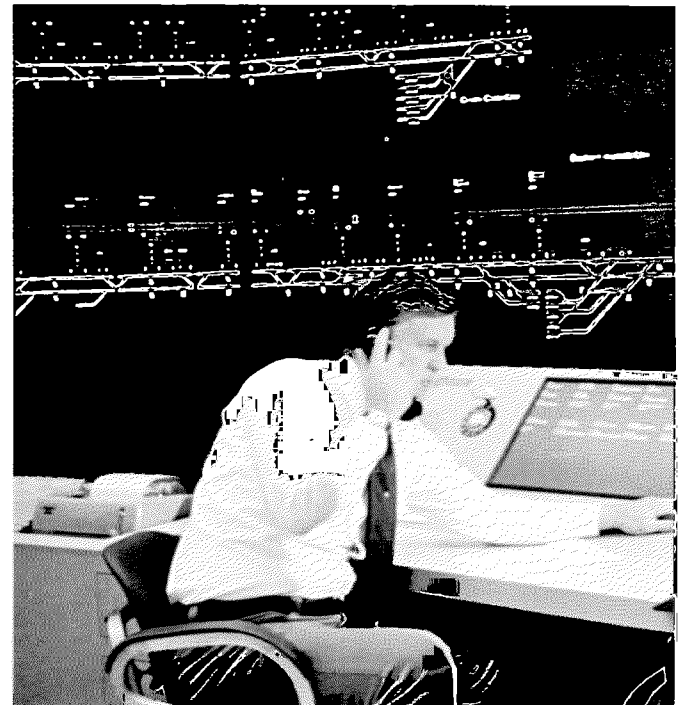
# The Computer and the Commuter

There's one BART first you'll appreciate but probably never see. That's the world's first computer-supervised train control system. Rather than having a lot of trains running on individual schedules, this gets all the BART cars working together. The computer and central supervision constantly adjusts the schedule of each train to maintain an even, efficient spacing.

The system includes a central control complex in BART's Lake Merritt Administration Building, with local control units in the stations, train yards and on the trains themselves, as well as communication links tying them all together. The local units control all the functions relating to safety, such as protective train spacing, speed limitation and locating switches to prevent misroutings.

A giant central computer coordinates the whole system. It cannot override the safety functions of local systems, but can override other decisions, such as the time a train spends in a station, in order to keep everything running at peak efficiency.

Under this system, train acceleration and braking is smooth, safe and completely automatic. The computer determines departure times from yards and stations, and keeps an eye on routings. It requests train speed adjustments and makes other corrections to maintain the best possible service. In all these ways, our computer helps the commuter. By monitoring and supervising the whole network, it cuts operating costs and keeps trains running on an accurate schedule. You might say our computer has helped to bring back good old-fashioned personal service.

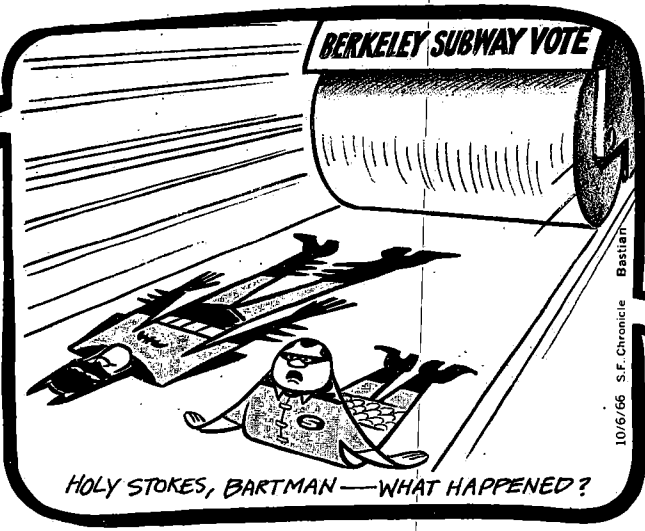
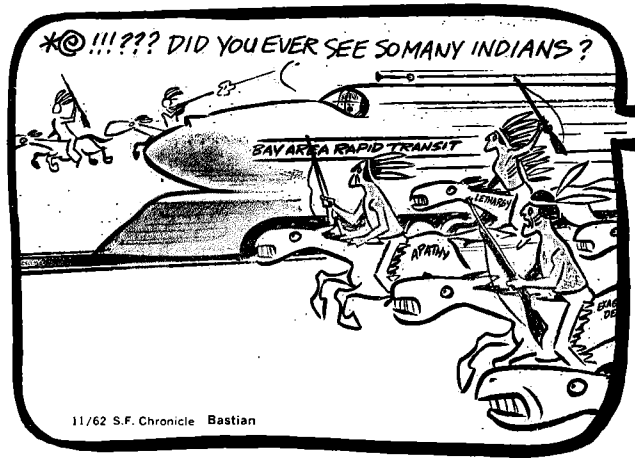


# BART THROUGH THE AGES

**CRACK!**



... AS SEEN BY BAY AREA CARTOONISTS



Slings and arrows were in goodly supply in November 1962, as supporters and detractors of BART battled down to the wire on the Rapid Transit bond issue. The righteous prevailed, with passage of the bond issue by a paper thin 61.2%.

Berkeley dwellers participated in a vote of their own in 1966, and by a whopping 75% agreed to spend upwards of \$20 million to bury another 3 miles of BART line and two stations. At that time, such additional design and construction loomed as an 18-month delay, a steam-roller, indeed.

"Santa Claus is coming to town" San Francisco's Market Street appeared somewhat shell-pocked at Christmas, 1967, at the height of BART subway excavation. Some people must have made it through the barriers and over the boardwalks, however; merchants recorded a 6% increase in sales over the preceding year.



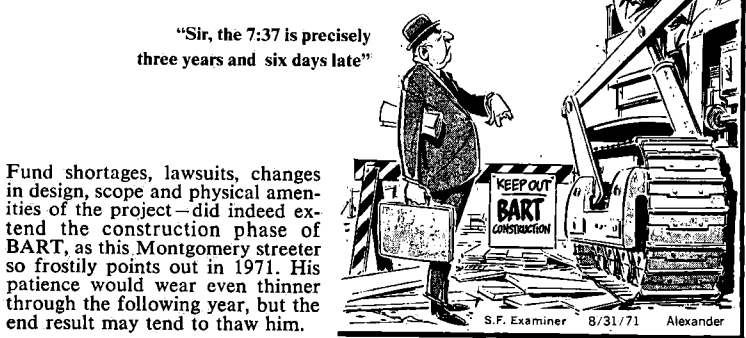
Miniskirts may have been the style in 1967, but thoughts of a mini-BART brought no admiring glances from BART's Board of Directors. Despite the spectre of a \$150 million deficit, the Board rejected trimming the 75-mile system, and agreed not to commence service until all was built as promised in 1962.



The tattered figure shown above was a familiar sight in Sacramento in 1968—and in 1967 and 1969—as BART struggled to get financial relief. Construction had slowed due to lack of funds, and the nightmarish vision of a \$700 million monument to futility was very much with BART.



"At last" No mirage this time, cooling fiscal waters poured into the parched BART reservoirs in the form of a half-cent increase in the sales tax of Alameda, Contra Costa and San Francisco Counties. Governor Ronald Reagan signed the measure into law on April 8, 1969, providing BART with the \$150 million needed to complete the project.



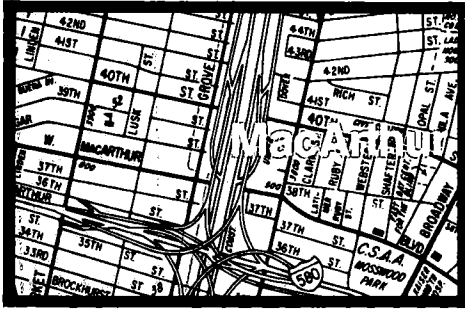
Fund shortages, lawsuits, changes in design, scope and physical amenities of the project—did indeed extend the construction phase of BART, as this Montgomery streeter so frostily points out in 1971. His patience would wear even thinner through the following year, but the end result may tend to thaw him.



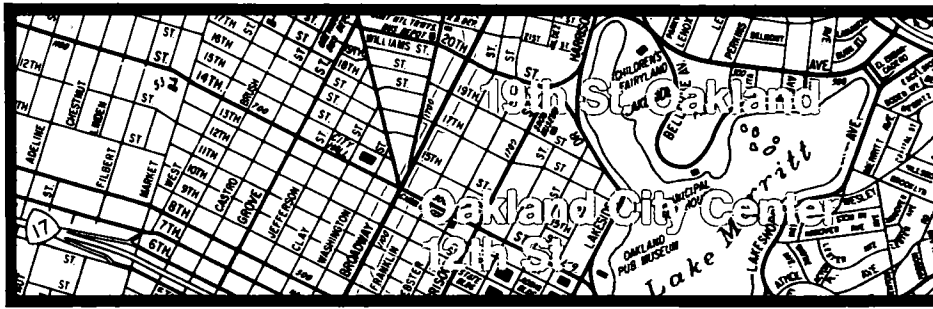
BART's obligation to pay its operating costs from the fare box, with no taxing power to share the brunt of such cost, is a departure from the usual public transit practice. Consequently, an aggressive campaign was launched to lufe the traveler out of his car and onto BART's. Beguiling maidens touting rapid transit's message may not be the answer, but the cartoon's "I need the money" approach is right on the money.



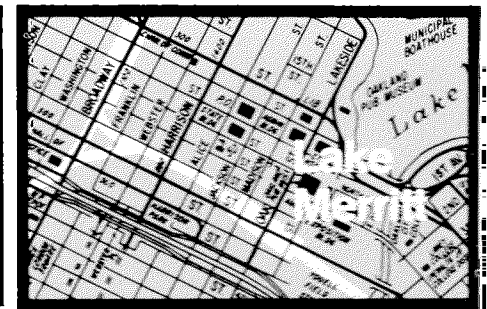
# BART's thirty-four stations



**MACARTHUR** 40th St. between Grove St. and Telegraph Ave.  
 • Free parking for 487 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: "C," 57, 15, 40, 41, 43, 14, 17.



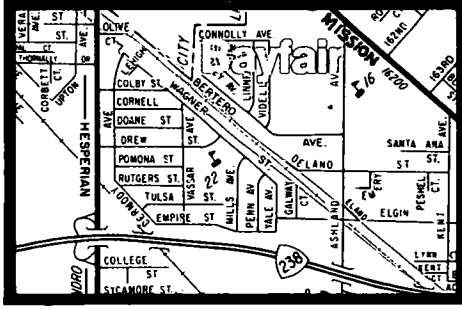
**12th ST.** Broadway between 11th and 14th Sts.  
 • No parking; no bike racks.  
 • Served by the following AC Transit buses: "A," "T," 11, 12, 14, 15, 18, 31, 32, 33, 34, 36, 38, 40-43, 51/58, 59/76, 72/73, 80, 81, 81A, 82, 83, 88.



**LAKE MERRITT** 19th St. between 18th and 20th Sts., level 17, from Hwy. 17.  
 • BART headquarters and Computer Control Center; close to Laney College and Oakland Museum.  
 • 250 parking for 110 automobiles; 40 bike racks available.  
 • Served by the following AC Transit buses: 14, 32, 33, 35.



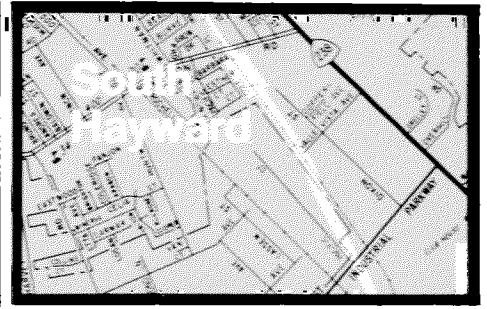
**SAN LEANDRO** San Leandro Blvd. between Davis and Parrott Sts.  
 • Free parking for 923 automobiles; 31 bike racks available.  
 • Served by the following AC Transit buses: N, 55, 60, 66, 81, 81B, 82.



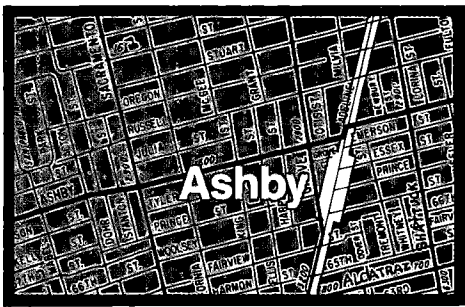
**BAY FAIR** Hesperian Blvd., adjacent to Bay Fair Shopping Center.  
 • Free parking for 1408 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 60, 62, 84, 93, 93A.



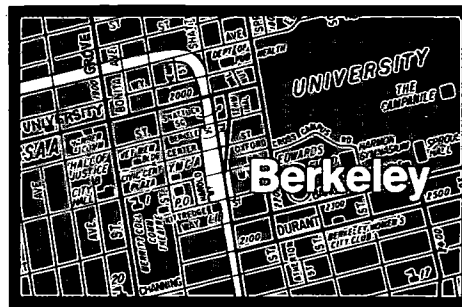
**HAYWARD** Montgomery St. between "B" and "C" Sts.  
 • Free parking for 696 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 60, 80, 81, 81A, 82, 90, 91, 91A, 92, 95.



**SOUTH HAYWARD** Tennyson Rd. and East 12th St.  
 • Free parking for 507 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 82, 91.



**ASHBY** Adeline between Ashby Ave. and Woolsey St.  
 • Free parking for 560 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: "P," 15, 17, 65.



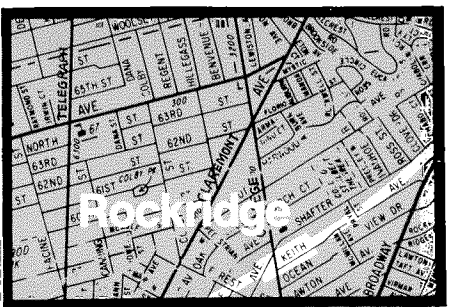
**BERKELEY** Shattuck two blocks south of University Ave. at Center St.  
 • No parking; no bike racks available.  
 • Served by the following AC Transit buses: "F," 7, 15, 40, 43, 43A, 51, 65, 67.



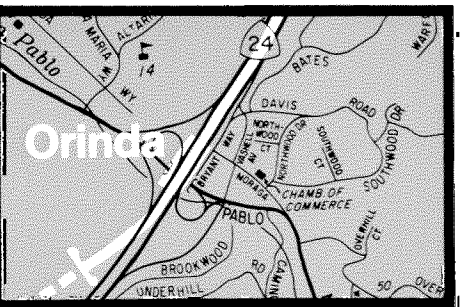
**NORTH BERKELEY** Sacramento and Delaware Sts.  
 • Free parking for 500 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 43, 43A, 51A, 65, 88.



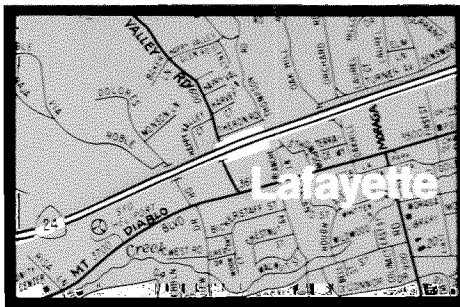
**EL CERRITO PLAZA** Fairmount Ave. adjacent to El Cerrito Plaza Shopping Center.  
 • Free parking for 509 automobiles; 35 bike racks available.  
 • Served by the following AC Transit buses: 51A, 67, 68, 70, 72, 72B, 78.



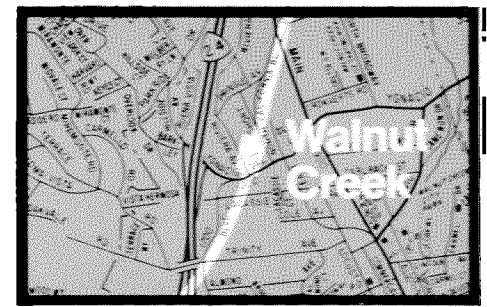
**ROCKRIDGE** College Ave. and the Grove-Shafter Fwy.  
 • Free parking for 776 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 17, 51.



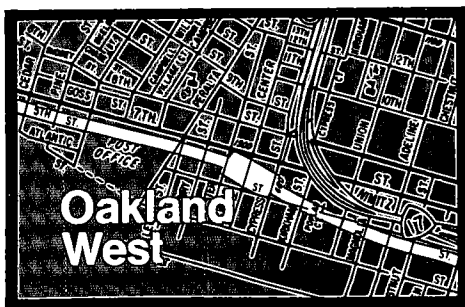
**ORINDA** Camino Pablo and Hwy. 24.  
 • Free parking for 939 automobiles; 18 bike racks available.



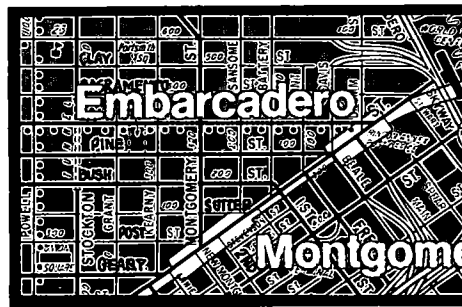
**LAFAYETTE** Deerhill Rd.; Hwy. 24 between Happy Valley and Oak Hill Rds.  
 • Free parking for 682 automobiles; 20 bike racks available.



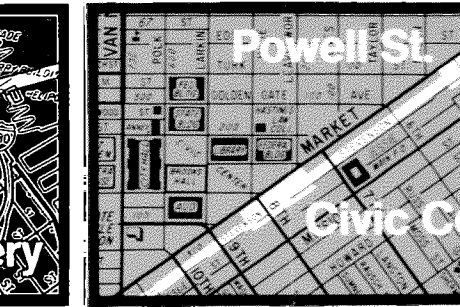
**WALNUT CREEK** Fairway Blvd. and Northern California Blvd.  
 • Free parking for 1114 automobiles; 18 bike racks available.



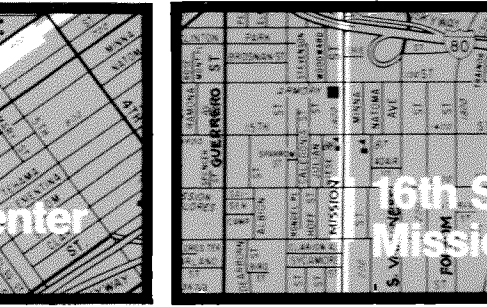
**OAKLAND WEST** Between 5th and 7th Sts., Center and Lewis Sts.  
 • Free parking for 391 automobiles; 20 bike racks available.  
 • AC bus service to be determined.



**EMBARCADERO** Market St. between Spear and Beale Sts. Two blocks from Ferry Building and Marin County Ferry.  
**MONTGOMERY ST.** Market St. between 2nd and New Montgomery Sts. Serves financial district.  
 • Muni bus service to be determined.  
 • No parking; no bike racks.

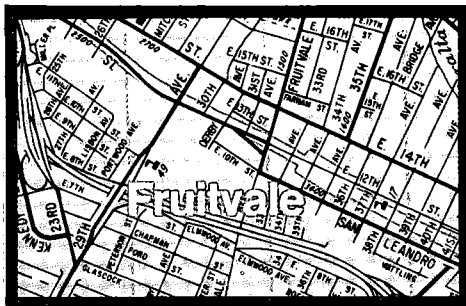


**POWELL ST.** Market between 4th and 5th Sts. Serves Union Sq., shopping and hotel district.  
**CIVIC CENTER** Market between 7th and 8th Sts. Serves City Hall, lower Market St.  
 • Muni bus service to be determined. Cable cars to Rob Hill and Fisherman's Wharf.  
 • No parking or bike racks available.

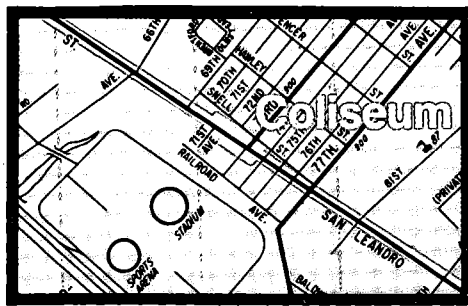


**16th ST. MISSION** Mission and 16th Sts.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.

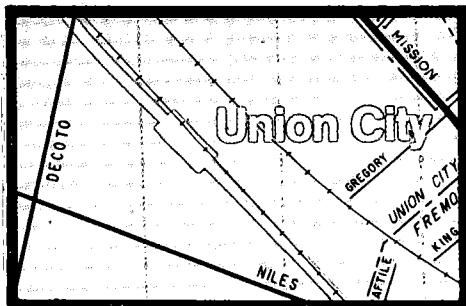
All you need to know about where they are, whether you can park, and which buses serve the station.



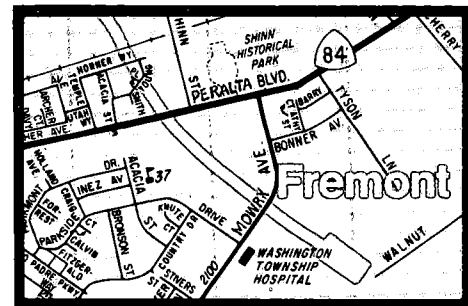
**FRUITVALE** 35th Ave. and East 12th St.  
 • Free parking for 730 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: 53, 54, 64, 79.



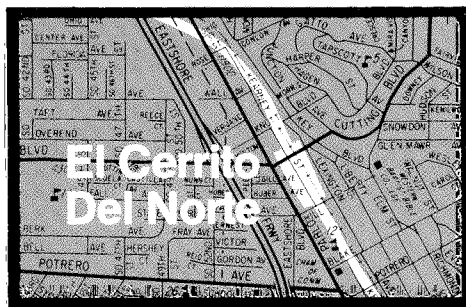
**COLISEUM** San Leandro St. between 70th and 73rd Aves.  
 • Free parking for 923 automobiles; 19 bike racks available.  
 • Served by the following AC Transit buses: 56, 57 (to airport).



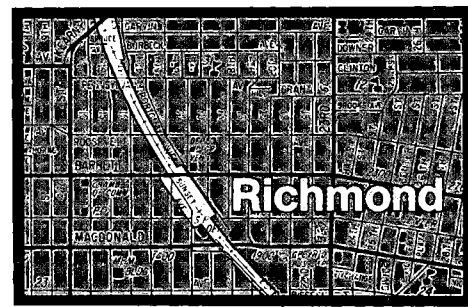
**UNION CITY** Decoto Rd. and Western Pacific R.O.W.  
 • Free parking for 485 automobiles; 18 bike racks available.



**FREMONT** Civic Center Pl.; 2 blks. southeast of Mowry Ave.  
 • Free parking for 700 automobiles; 21 bike racks available.



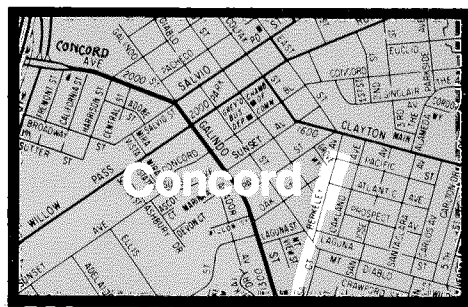
**EL CERRITO DEL NORTE** Cutting Blvd. and Hill St. 2 blks. from Hwy. 80, 1 blk. from San Pablo Ave.  
 • Free parking for 985 automobiles; 36 bike racks available.  
 • Served by the following AC Transit buses: 68, 70, 72B, 72C, 72M, 78.



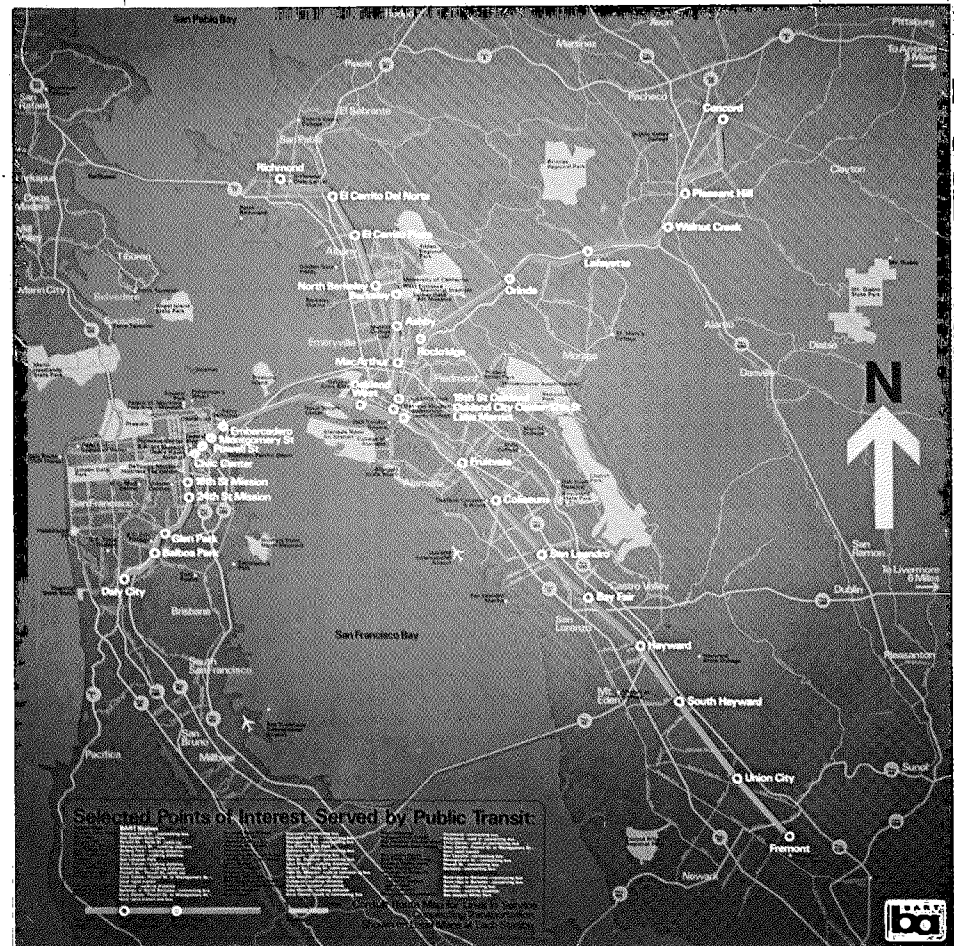
**RICHMOND** Nevin Ave.; between 16th, 18th Sts. and Macdonald Ave.  
 • Free parking for 783 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: 68, 69, 72, 78.



**PLEASANT HILL** Geary Rd. and Del Hombre Ln.  
 • Free parking for 1,337 automobiles; 20 bike racks available.

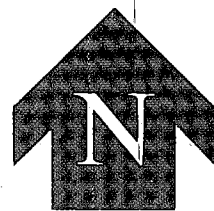


**CONCORD** Atlantic and Oakland Aves.  
 • Free parking for 1,059 automobiles; 20 bike racks available.



**REFERENCE MAPS**

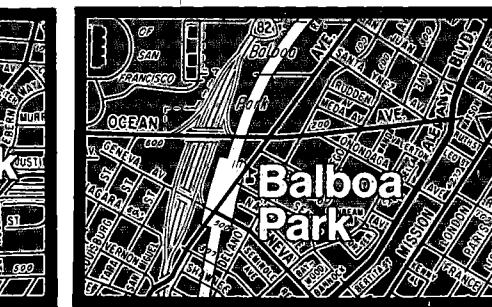
Each BART Station displays several of these large Points-of-Interest maps covering the entire Bay Area. The locations of over 40 of the more popular Bay Area attractions are shown in relation to the BART System. Also prominently displayed are large scale Local Area maps which cover the area around the station.



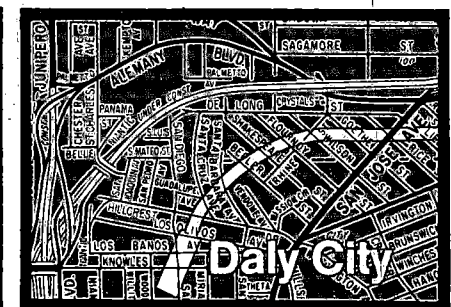
**24TH ST. MISSION** Mission and 24th Sts.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



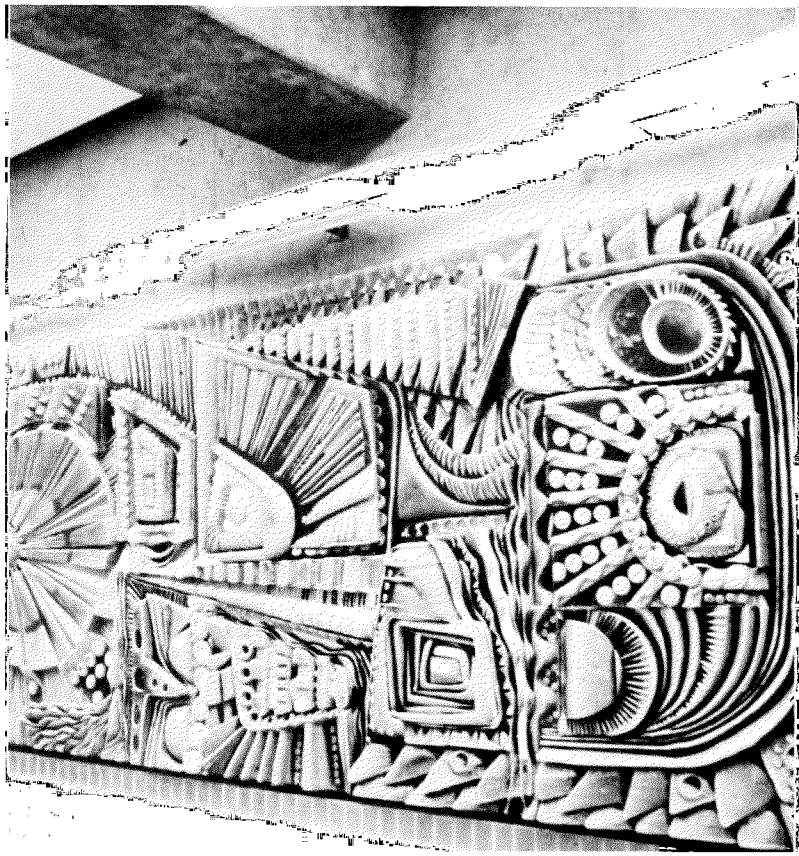
**GLEN PARK** Diamond and Bosworth Sts., near San Jose Ave.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



**BALBOA PARK** Geneva and Ocean Aves. at Tara St. One block from Balboa Park; direct access to Hwy. 280.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



**DALY CITY** Knowles Ave. between Niantic and San Diego Aves.  
 • Free parking for 785 automobiles; 20 bike racks available.



# Look what has

Subways or Rapid Transit have been around for a long time. London opened its first Underground stations in 1863. And New York's first stations on the old IRT line were opened to the public in the summer of '04.

Long years of service (and lack of funds) have taken their toll on what were once efficient, although perhaps austere, stations. As a result, many people have an image of the typical 'subway' station as an ugly place with dingy masses of concrete and narrow, drafty corridors.

But architecture has come a long way in the past hundred years. Today, public building has to be not only functional, but beautiful as well. And, as far as BART's planners were concerned, there was another very important aspect that had to be borne in mind. Each of

BART's 34 stations was, in effect, a Johnny-come-lately to the community. People had established a way of living they felt comfortable with and might, understandably, look upon the arrival of BART as an interruption to the accepted 'pattern' of their community. So BART's 14 subway and 20 aerial stations were specifically designed to fit in with their surroundings.

Variety and a healthy sense of competitiveness were achieved by appointing sixteen different architectural firms, eight landscape architects and several graphic designers and artists.

Wherever possible stations have been kept spacious and open to allow natural light to reach concourse and track levels. The result is a variety of skylights, glass walls, and



# happened to the 'subway' station.

sunken plazas. In Berkeley's Ashby Station, even the parking lot has been lowered so that the sun can light the mezzanine and platforms.

In downtown areas of Oakland and San Francisco, the stations are simple, efficient, and businesslike, brightened by large areas of color. In contrast, stations like North Berkeley, with its domed roof and skylight, or El Cerrito Plaza, with its rich earth coloring, have a more relaxed, residential air.

From the brick plaza at Lake Merritt Station in Oakland, you can look down onto an airy fountain with pool and ferns. This garden-like area is surrounded by a concrete wall sculptured with birds and fish. Behind this 200 foot mural is BART's computer control center—the artist thoughtfully leaving peepholes so passers-by can see what makes the entire system tick.

In all, fifteen stations contain works of art specifically commissioned for them. MacArthur Station's mezzanine is brightened by colored mosaics. Two townscapes decorate Union City Station. In San Francisco, the Mission Street Stations are enhanced by giant concrete bas reliefs in an Aztec motif and brightly colored tile.

Historically, overhead stations and their tracks have often blighted the areas they pass

over. But BART's architects, with the help of a \$400,000 federal grant, found ways to actually improve these areas. Beneath 2.7 miles of track in Albany and El Cerrito, there are now 'linear parks'; green lawns, pine trees and flowering shrubs—even a shuffleboard court and a tot lot.

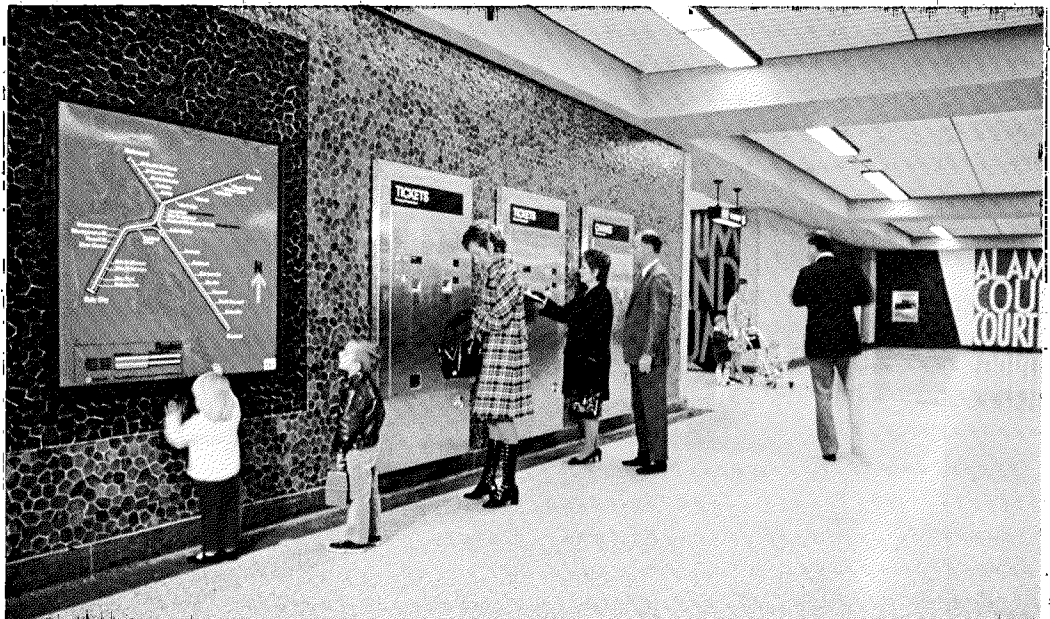
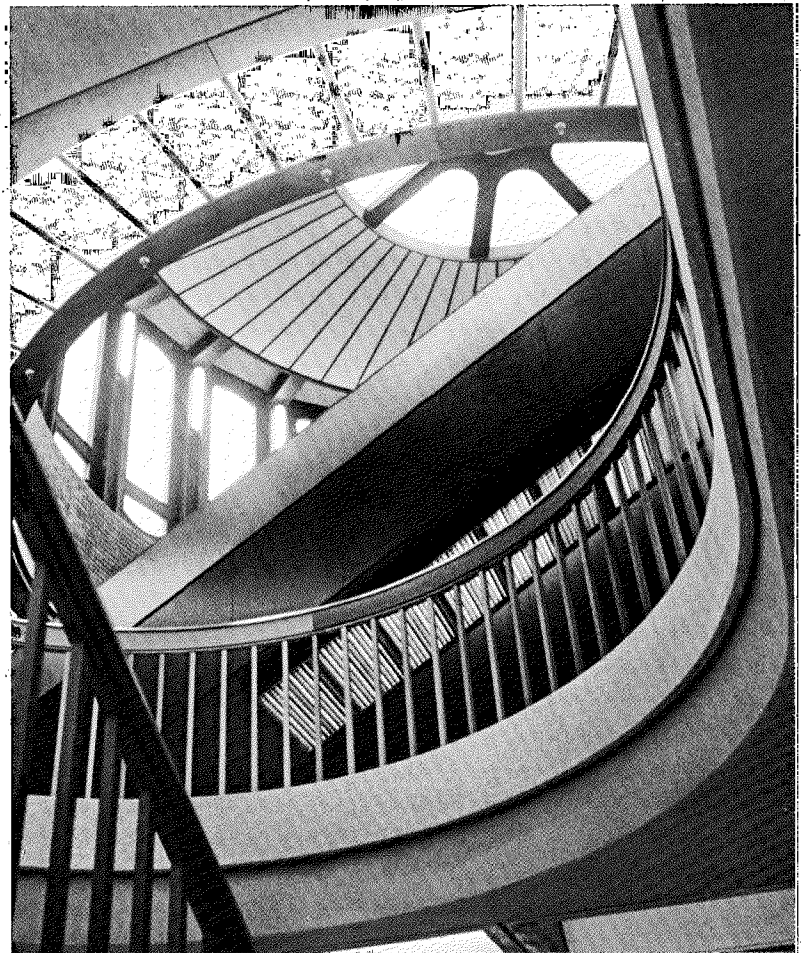
Of course, there's a lot more to BART stations than meets the eye. You can move from one level to another by stairs or escalator and, for the handicapped, there are special elevators set apart from the main rush of passengers. And, for your convenience, there are telephones, vending machines with candy, coffee, soft drinks and cigarettes. Also storage lockers and newspaper stands.

We have tried very hard to make BART stations a lot more than places to get on and off trains. We hope you agree the effort was worth it.

**TOP LEFT:** *Bas relief in Aztec motif at the Richmond Station.*

**LOWER LEFT:** *The plaza at Lake Merritt Station.*  
**RIGHT:** *Sunlight reaches below ground platforms at Berkeley Station.*

**BELOW LEFT:** *Mosaic mural at MacArthur Station.*  
**CENTER:** *Vaulted roofs at 16th-Mission Station.*  
**RIGHT:** *Super-graphics brighten Coliseum Station.*  
**LOWER RIGHT:** *Map display area and ticket machines at Lake Merritt.*



# Buying your first ticket.

To some people, BART's fare collection machinery seems a little complicated at first, but system testing with every kind of passenger—from young children to 80-year-old grandmothers—indicated all caught on pretty well the second time around.

For those who have not had a chance to ride BART...

*Here's your first time around:*

BART fares are graduated: the farther you travel, the more you pay. The procedure is entirely automated, employing a kind of "credit card" ticket that you use to enter and leave the system. You slip your ticket into the entry gate and the machine lets you into the station. As you pass through, the entry gate pops your ticket back to you. It's exactly the same when you leave a station.

That's all there is to the basic idea—but let's start from scratch and imagine you are buying your first BART ticket... As you enter the station you go to a ticket vending machine.

Start giving this machine your money and watch the changing total in the lighted "window" marked *ticket value*. The machine will take anything from a nickel to a five-dollar bill and issue tickets valued anywhere from 30¢ to \$20. The total tells you how much you've put into the machine. When you reach the value you want, press the *Issue New Ticket* button and a new ticket is issued with what you paid stamped right on it. This machine can even take an old ticket, "read" how much value is left on it and credit it towards a new one!

The change machine next to the ticket vender may prove useful if you want to buy a ticket in an exact amount.

Now, with your ticket in hand, go to the entrance gate and insert the ticket in the slot. In 8/10ths of a second, your ticket pops up. Lift it out, and the orange gate slides open. You're in!

You can also pass through the entry gate with coins. There is a coin slot which will take the minimum fare of 30¢. The entry gate issues tickets good for BART's minimum ride as you pass through. This ticket does not have "30 cents" stamped on it, but don't worry, BART's machines will know what it's worth.

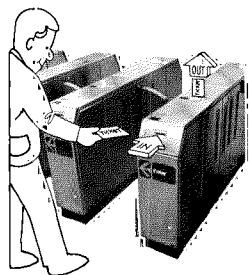
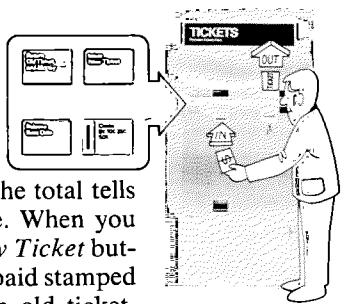
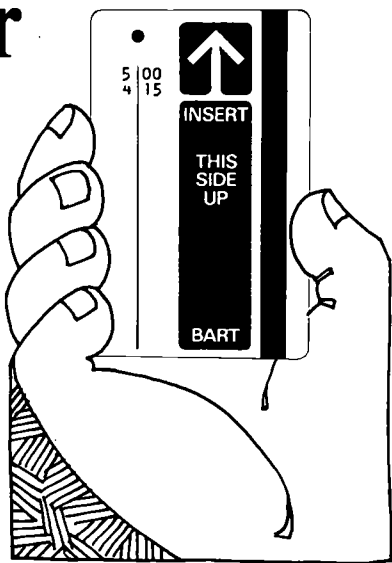
At the end of your ride the procedure is the same. You give the exit gate your ticket. Provided it has enough value on it to cover your trip, the machine will automatically deduct the correct fare and, if value remains on the ticket, return it to you as it opens the gate.

But let's say your ticket has insufficient value: it reads 30¢ and your trip cost 65¢. In this case, the exit gates will not open. Your ticket will be returned, and a little sign on the gate will flash "*Ticket Underpaid—Go to Addfare.*" In this case, you simply pick up the ticket and step over to an "*Addfare*" machine. Insert the ticket and a lighted panel will tell you how much money you need to add to the ticket to get out. (A change machine next door is there to help you make the necessary adjustments.) When the window marked "*Additional Fare Required*" reads zero, the Addfare machine will flash: "*Good for Exit.*" You go back to the exit gate and, this time, the ticket lets you through.

This has taken a lot longer to explain, in words and pictures, than it takes in practice. But, should a passenger—at any time—think the machines have got the better of him, the *Station Agent* in the Information Booth by the machines will sort it out. That's what he's there for.

One thing to remember is that BART's machines "think" with magnetic tape. The ticket's brown stripe is encoded with all the value, entry, exit and timing information. Rough handling or exposure to a magnet could destroy its usefulness. It's just like money, so keep it in a safe place.

People often ask why BART needed all this space-age machinery? The answer is simple. Speed and convenience. From the outset, BART's planners and engineers knew that for people to switch from their cars to rapid transit the whole experience had to be easy and enjoyable. And that definitely includes how easy it is getting into and out of the stations.



# Getting there is

When they set out for their Saturday sailing lesson at Lake Merritt, Nick and Bob Wilson decided it was a good opportunity to take their



The boys follow BART's blue and white 'pathfinder' signs down Decoto Road right up to the Union City station...



... and leave their bikes in the rack by the entrance. (You can't take bikes on BART trains.)



The tickets go in and the orange panels slide back before you can say "Open Sesame." Now for the trains!



A quick look to check they're headed for the right platform,



and they're up the stairs two at a time...



just in time to make the Richmond train.



At the Lake Merritt Station, Bob checks the local map to see if the lake is close enough to walk to. (It is.)



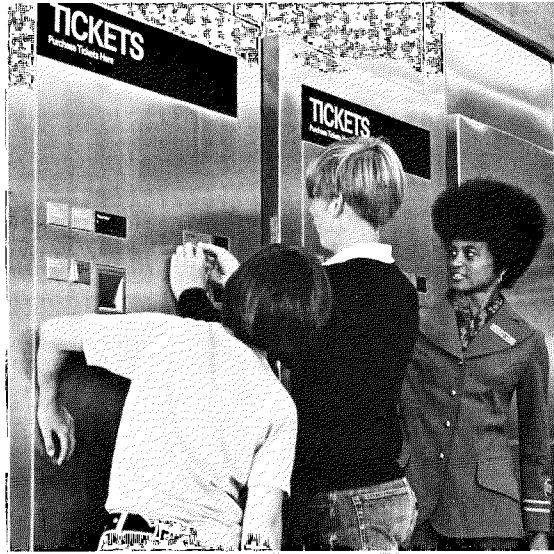
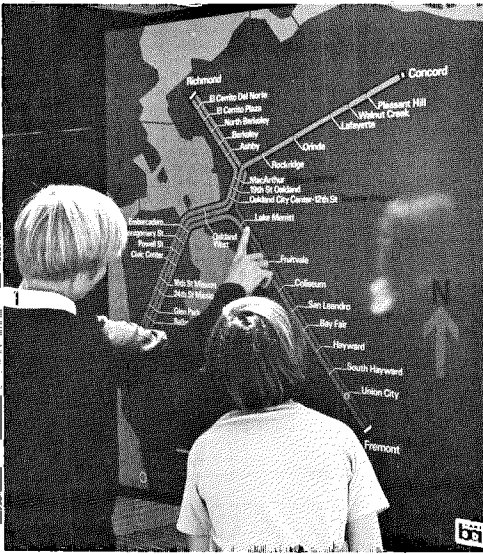
They get out of the station the same way they got in—except that these exit gates deduct the fare for the ride.



A peek through the wall at BART's Lake Merritt computer center which makes the entire system run....

# half the fun.

first ride on BART. We sent a photographer along to snap what happened.

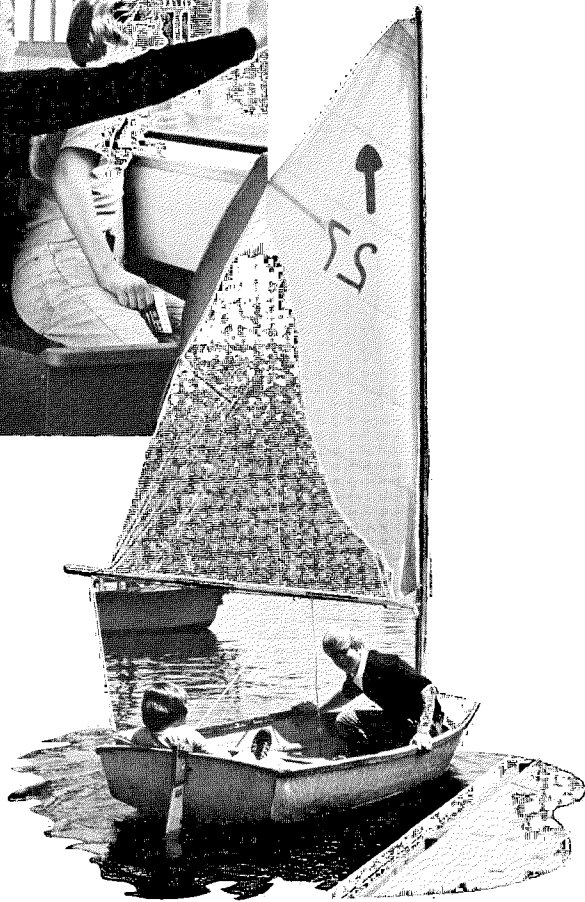


Outside the station they do what everyone does first time out—they figure out where they're going and what station to get off at. Several of these large scale Route maps are displayed at every BART station.

Bob puts a dollar, two quarters and two dimes in the ticket machine, presses the magic button and out pops his round-trip ticket. (Since Nick is not yet 13 his dad has already bought his special red discount ticket at a local bank.)



During their 20 mile, 22 minute trip to Lake Merritt, Bob and Nick get a chance to see several stations.



and they're off... and sailing!

## You'll be seeing a lot of these BART people:

**BART Train Attendants** are up front of every train. Their responsibility is overseeing the operation of the BART cars and making inter-com announcements of train destinations and other information.

**Line Operations Supervisors** are in charge of Train Attendants and Station Agents as well as the trains. It's their responsibility to keep things running smoothly.

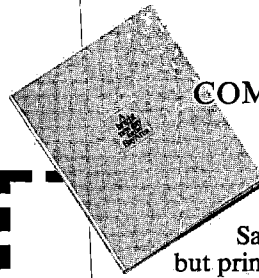
Every BART station will have at least one **Station Agent**. He serves as the 'manager' of that location. He's there to advise, inform and assist, either personally or when you call him on the white courtesy telephones placed throughout each station.

BART has its own **Security** people regularly patrolling stations, trains and parking areas.

Look for our **BART Passenger Representatives**. They are mobile extensions of our Station Agents, acting as special service assistants.



A limited number of this **COMMEMORATIVE PUBLICATION** is available in deluxe edition.



Same size and content as this rotogravure supplement, but printed on high quality glossy paper. Hard bound cover in blue and silver. A collector's item.

Each copy \$7.50. Postage and tax included. Mail to: BART Passenger Services, 800 Madison Street, Oakland, California 94607.

Please send me \_\_\_\_\_ copies of the deluxe edition of BART's Commemorative Publication at \$7.50 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

I enclose \$\_\_\_\_\_.

City \_\_\_\_\_ Zip \_\_\_\_\_

# PRESIDENT'S MESSAGE

by George M. Silliman, President, Board of Directors, Bay Area Rapid Transit District

As one of the two current BART directors with 15 years of service on the Board, I have watched the BART system emerge from the tenuous dreams of its inception to the people-carrying reality of today.

The final product didn't come quickly, cheaply or easily but, as the pages of this publication indicate and a ride will confirm, the BART system is one of the best investments made by the people of the Bay Area.

It is an investment that achieves the immediate goal of providing a most efficient transportation service to millions of people and a giant step towards the achievement of the long range goal of providing an instrument for coordinated urban planning for the entire Bay Area.

The BART system is the nucleus of a transportation system that will eventually serve all 9 Bay Area Counties. With only a 28 mile segment of the 75 mile system in operation, expansion is already on the drawing boards. Under actual study are rail transit links to both San Francisco and Oakland airports; the Antioch-Pittsburg area of eastern Contra Costa County; the Livermore-Pleasanton region of southeastern Alameda County; and the northwest segment of San Francisco.



George M. Silliman, Alameda County

Federal funding is easier to come by today than it was in BART's pioneering days in the 1950's and 1960's, making earlier starts on our extensions much more attainable.

A 300 mile rapid transit system embracing all nine Bay Area Counties will not happen overnight, nor be without its problems, but it is much closer to reality than ever before. It may sound like an optimist's dream, but then, so did a 75 mile system back in 1962. I am convinced that such a dream can be fulfilled and know my conviction is shared by current and former board members, who have given their time and talent in guiding this project.

Those former board members are:

Mr. Frank N. Alioto, Mr. Richard A. Bancroft, Mr. Newell B. Case, Mr. Thomas F. Casey, Jr., Mr. Allen E. Charles, Mr. Felix Chialvo, Mr. H. L. Cummings, Mr. Arthur J. Dolan, Jr., Mr. Adrien J. Falk, Mr. William S. Godfrey, Mr. Garland D. Graves, Mr. Thomas Gray, Mr. Stanley T. Grydyk, Mr. Robert Higgins, Mr. John C. Houlihan, Mr. Wallace J. S. Johnson, Mr. Marvin A. Joseph, Mr. Roger D. Lapham, Jr., Mr. Clair W. MacLeod, Mr. Harry L. Morrison, Jr., Mr. J. Joseph Sullivan and Mr. Sherwood Swan.

## DIRECTORS

### ALAMEDA COUNTY



Arnold C. Anderson  
Past President



Richard O. Clark



H. R. Lange

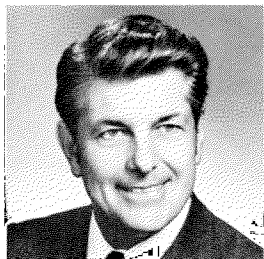
### CONTRA COSTA COUNTY



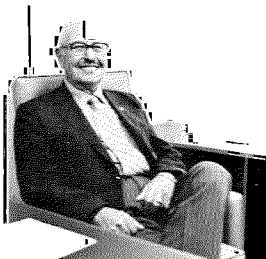
Nello J. Bianco



James P. Doherty  
Past President



Daniel C. Helix



Joseph S. Silva

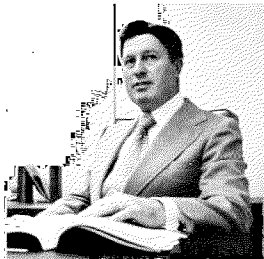
### SAN FRANCISCO COUNTY



William H. Chester,  
Vice President



William C. Blake



Thomas F. Hayes



William M. Reedy  
Past President

# The corporate team that brought BART into being

The assignment that was handed to BART's engineering consultants some 20 years ago was direct and simple: "Produce the world's best mass transportation system for the people of the San Francisco Bay Area."

To deliver this, no one engineering firm could carry the full load. So three outstanding firms formed the joint venture of Parsons Brinckerhoff-Tudor-Bechtel and undertook the job of designing, engineering and management of the construction of the entire BART system.

PBTB did its job by recruiting the greatest engineering design team that ever has been assembled. BART's requirements over the years occupied a corps of thousands of civil, structural, mechanical and electrical engineers, as well as essential specialists such as supervising architects who coordinated the work of planning 34 community-oriented stations.

Obviously, planning for people has to be done by people, so perhaps you would like to know that PBTB's Board of Control is composed of John P. Buehler, of Bechtel Corporation; Walter S. Douglas of Parsons, Brinckerhoff, Quade & Douglas; and Louis W. Riggs of Tudor Engineering Company. Their project director in charge of the BART job is W. A. Bugge.

Bechtel is one of the world's leading engineering firms, operating in 38 countries from its San Francisco base. Its staff of about 6,000 engineers designs and builds hydroelectric, fossil fuel and nuclear power projects, mining developments, refinery and pipeline projects and mass transportation systems. The company is highly experienced in designing and building service facilities for people. It was Bechtel's expertise in automation and large-scale electric projects that established the criteria for BART's automatic train control and \$55 million electric power system.

Parsons, Brinckerhoff, Quade & Douglas, based in New York, is outstanding in transportation planning. Founded by General William Parsons, the designer and builder of the first New York subways and a consultant on the London subway, the firm was the logical choice to perform the original feasibility study on BART. This led to formation of the joint venture and the assignment to design and supervise the building of the system. The company's record includes such accomplishments as the planning and design of 4,000 miles of highways, 1,300 bridges, and mass transportation systems in ten cities.

San Francisco's Tudor Engineering Company is widely known for transportation planning and engineering, including highways, bridges, port facilities and mass transit. Tudor's engineers also have completed transportation studies in Alaska, Hawaii, Contra Costa and Marin Counties and Seattle in the United States, as well as in Latin America.

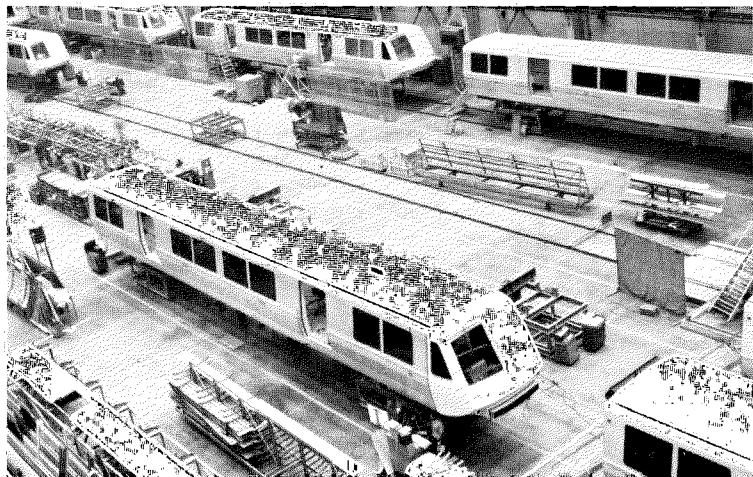
These three firms had a reservoir of capability to run a railroad right-of-way through tubes under the bay, to tunnel the Berkeley Hills, to provide BART customers with a new kind of high-speed, quiet, comfortable train, operating over 75 miles of line, stopping at 34 convenient stations, self served by a space-age ticket vending system, and with the innovation of an automatic electronic train control system. All this with the overriding requirements of safety and reliability.

Having delivered on BART, PBTB's people are now in demand in other cities. In Atlanta, they are planning a \$1.3 billion rapid transit system. In St. Louis, they have completed a study for an integrated train and bus system. In Caracas, Venezuela, they have just finished plans for a \$700-million transit network.

But BART is the favorite of PBTB's staff. Some of them have been working on it almost 20 years! They have had a long, close involvement with this people-oriented project that crossed so many new frontiers of technology. In more ways than one, it was the job of a lifetime.

# These firms, working with BART, helped finance the production of this book

## Rohr Industries builds the BART car.



Rohr Industries also builds rapid transit cars for Washington, D.C.; provides half the nation's city transit buses; builds the Monocab people mover that was the hit of Transpo '72; is developing the Aerotrain air cushion vehicle, the ROMAG magnetic vehicle, and is engaged in a wide range of research projects for transportation of the future.

**ROHR** — helping engineer a better tomorrow



## Westinghouse equipment and systems are working at BART

Westinghouse Electric played a big part in making BART a reality.

BART is a showcase of modern mass transit. Westinghouse supplied the automatic train control, the advanced propulsion equipment, as well as air conditioning and computers. In addition, we supplied car testing equipment, escalators, elevators, and lighting equipment.

Westinghouse is also playing a key role in other transit systems such as New York City; Washington, D.C.; Sao Paulo, Brazil; and both Seattle-Tacoma and Tampa International Airports.

You can be sure...if it's Westinghouse



## BART and IBM

BART is a major step forward for a progressive American city striving to meet the needs of its people and to improve the quality of urban life — IBM takes pride in its contribution to that achievement through its development of BART's automatic fare collection system.

IBM is working to meet man's needs on many fronts — helping to speed the mail, to fight pollution, to improve the administration of justice, to enhance the safety of travel in our nation's skies.



Gallagher & Burk

Kaiser Industries

McGuire & Hester

Midland Industrial Electric Co.

Morrison-Knudsen Co., Inc.

Newbery Electric Corp.

Perini Corp.

Winston-Drake-Early

**Boss Group Companies** offer complete uniform and career apparel services including designs, manufacture, sales and rental, plus complete system support that includes individual deliveries and a comprehensive control program to assist clients with cost analysis.

Proud to be associated with BART's innovative transportation system, several Boss Group Companies have worked to develop BART's unique career apparel.

**Christensen & Foster**, a Santa Rosa general building contracting firm, is proud to have played a part in the construction of the world's most modern transit system.

In 14 years of incorporation, Christensen & Foster has successfully completed more than 700 individual contracts over the width and breadth of Northern California for all manner of clients, including private corporations, public utilities, city, county, state and federal government jurisdictions, and all branches of the armed forces.

Completed and presently active BART contracts include station finishes at the MacArthur, Berkeley and Civic Center

**Peter Kiewit Sons' Co.** has performed virtually all types of construction in its 88-year history.

Following extensive defense construction during World War II, the company resumed its operation in building and highway work, and also expanded the nature of its heavy engineering construction to include marine, mining and tunneling operations.

Headquartered in Omaha, Nebraska, it is now one of the nation's larger construction organizations with district and area offices located coast to coast (including Alaska) and

**Homer J. Olsen, Inc.** has constructed West Coast projects from Southern California to the State of Washington with expertise in the management and engineered construction of unusual and complicated jobs. These include airports, highways, bridges, environmental protection projects and portions of the Bay Area Rapid Transit system.

The Olsen organization has been involved, either singly or in joint venture with other heavy construction contrac-

**Sundberg-Ferar**, industrial designers of Southfield, Michigan, was responsible for two of the most significant design elements of the BART system — the BART car and BART logo symbol.

Sundberg-Ferar's car design achieves the prime objective of providing the transit passenger with luxurious, comfortable surroundings and its logo design is a strong symbol which will immediately identify station locations, trains and

The Commercial Uniform Division of Los Angeles has created all the BART apparel; the Boss Rental Service Division of San Leandro will provide BART with a complete uniform leasing program.

Designed for quality and comfort, the distinctive BART uniforms will speak "pride and performance" for the men and women who wear them.

Stations, platform finishes at 16 stations on the East Bay Lines, and construction of San Francisco's Hallidie Plaza.

It is Christensen & Foster's policy to undertake quality construction in a timely and efficient manner through the media of aggressive management and the melding of their own personnel with that of subcontractors' and materials suppliers'.

Christensen & Foster looks forward to many more years of aggressive and satisfying endeavor in the building construction field in Northern California.

from Vancouver, British Columbia to Montreal, Canada.

Its work on BART has included heading the joint venture construction of the transbay tube, twin compressed air tunnels beneath San Francisco's Mission Street, the twin-tunnel Diamond Street subway, and the Glen Park, Van Ness and Civic Center Stations. Its Castcon Division has manufactured and/or installed approximately 25 miles of pre-cast, pre-stressed concrete double-track girders for the aerial portion of the BART system.

tors, in nine BART contracts located on both sides of the Bay, with a total construction cost of \$62 million. These contracts include: Powell Street Station and tunnels, Balboa Park Station, Oakland Subway tunnels and structures and Powell & Montgomery Street Stations' mezzanine extensions.

It has been an honor to be part of such a significant project.

all BART literature. Both have become trend setters and goals for other transit agencies to strive for.

Since completion of the BART design, Sundberg-Ferar has designed and built prototypes of fifteen transit vehicles for other major cities in the country including New York, Long Island, Washington, D.C., Chicago, Baltimore, Las Vegas and the Boeing State-of-the-Art Car for the United States Department of Transportation.



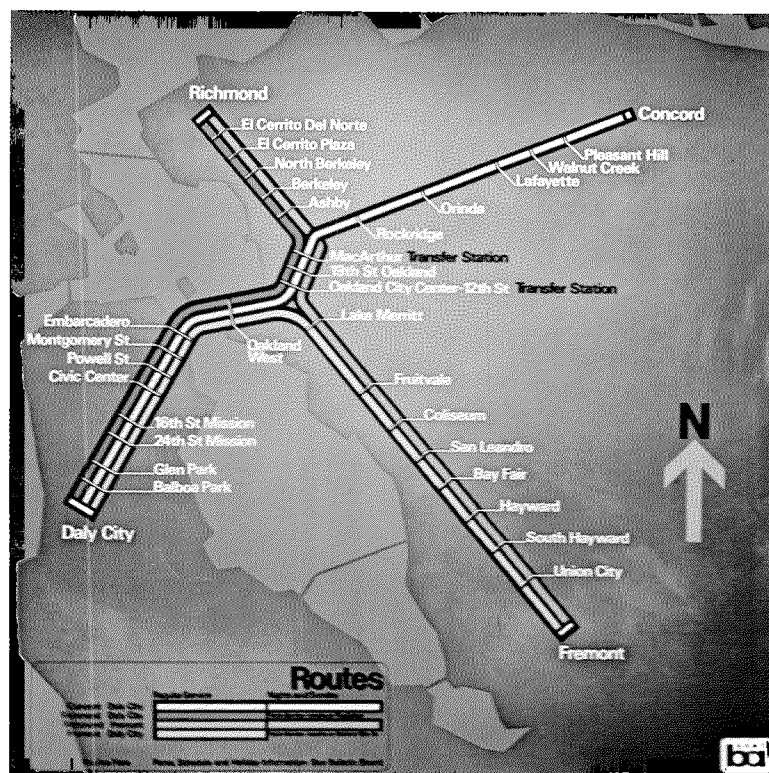
# How to make sure you get on the right train.

As you can see from this station route map there are four BART routes with four destination cities: Richmond, Concord, Fremont and Daly City. Every BART train heads for one of these end-of-route destinations. Look up the station you are going to on the route map (there are several at every station) and remember on which of these routes it's located.

Just check for the right destination on the sign over the stairways or escalators leading to the station platforms. There are electronic signs along the platforms too, which indicate which of the four routes is being served, so it is pretty difficult to go out of your way. But should you find yourself at the wrong destination, one of

BART's Station Agents will be happy to put you back on the right track.

At this time there is weekday service only (6 a.m. to 8 p.m.) from Fremont to MacArthur station. When BART's full 75-mile system is completed, the following schedule will be in operation: during daytime hours, Monday through Saturday, there will be direct service on all routes. Concord travelers going to Richmond or Fremont have to change trains at MacArthur or Oakland City Center-12th Street. At night (after 10 p.m.) and on Sundays, passengers traveling between San Francisco and destinations on the Richmond or Fremont routes will also have to change trains. All transfers are made in the East Bay, at either MacArthur or Oakland City Center-12th Street. The precise times of first trains in the morning and last trains at night will vary slightly according to station, but when everything is running as planned, service will start at 5 a.m. and end at 1 a.m.



# What the ride will cost and how long it will take.

## TIME

(Example: Oakland City Center-12th St. to Hayward-18 minutes.)

## FARE

Concord	5	7	11	16	21	41	38	36	33	31	29	60	56	52	48	45	42	38	36	32	28	26	27	30	50	47	45	43	41	39	38	37	36
Pleasant Hill	2	6	11	16	36	33	31	28	26	24	55	51	47	43	40	37	33	31	27	18	21	22	25	45	42	40	38	36	34	33	32	31	
Walnut Creek	4	9	14	34	31	29	26	24	22	53	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25	
Lafayette	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Orinda	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Rockridge	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Richmond	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
El Cerrito Del Norte	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
El Cerrito Plaza	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
North Berkeley	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Berkeley	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Ashby	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Fremont	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Union City	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
South Hayward	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Hayward	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Bayfair	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
San Leandro	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Coliseum	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Fruitvale	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Lake Merritt	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
MacArthur	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
15th St Oakland	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Oakland City Ctr-12th St	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Oakland West	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Daly City	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Balboa Park	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Glen Park	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
24th St Mission	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
15th St Mission	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Civic Center	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Powell	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Montgomery	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Embarcadero	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			

### SPECIAL FARES

Children 12 and under and senior citizens 65 and over may ride BART at one-fourth the full fare on a special red ticket. These red tickets must be purchased at banks participating in BART's neighborhood ticket sales program and are not available from the regular vending machines in BART stations.

The cost of special red tickets is \$2.50 (good for \$10.00 worth of rides). BART's regular fare tickets may also be purchased at local banks in values of \$10 and \$20.

### BUS TRANSFER

BART passengers can pick up a free, one-zone bus transfer upon leaving East Bay stations served by AC Transit.

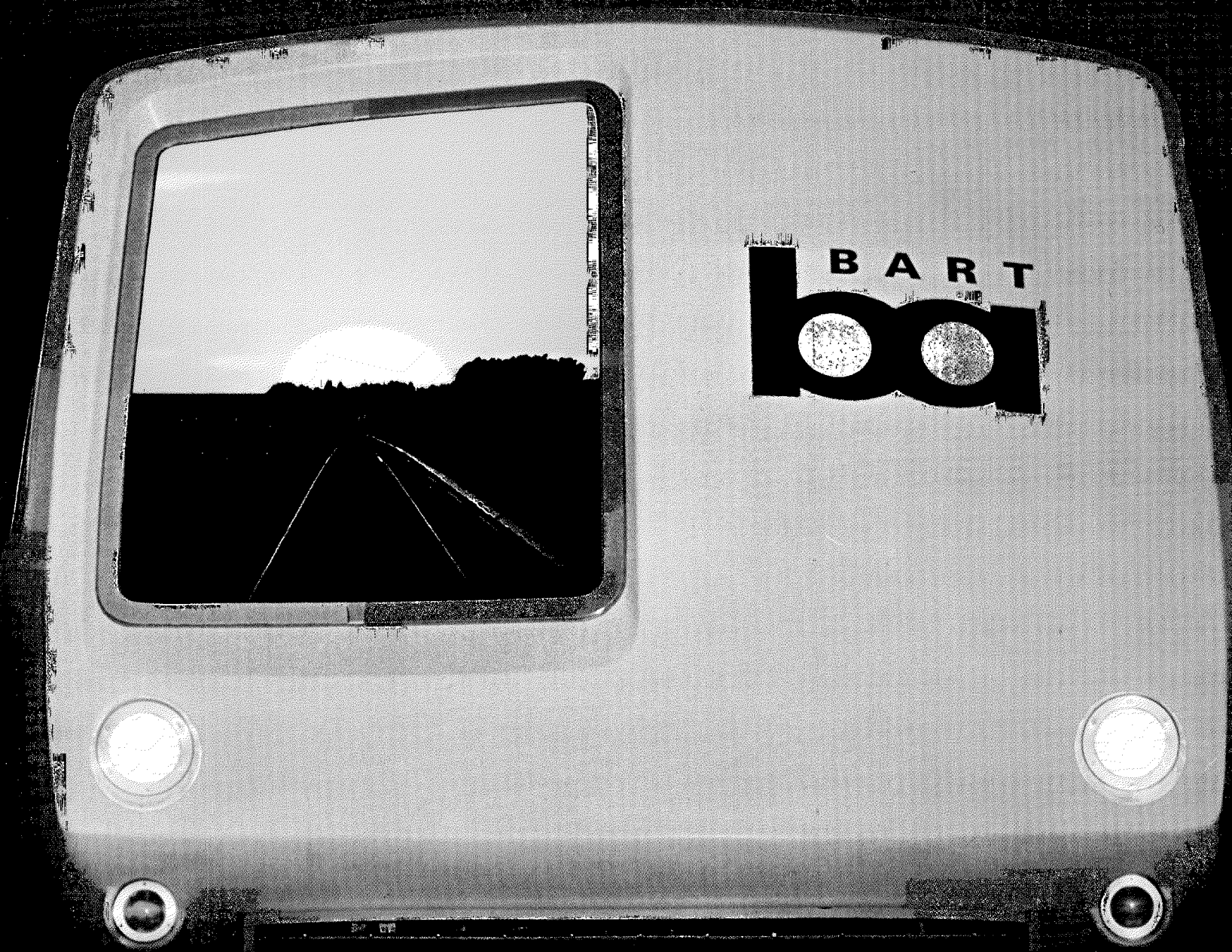
This transfer is dispensed from the white bus transfer machine located in each station's paid area.

### ROUND TRIP RIDES

You can take rides of up to 3 hours on BART for 60c, regardless of the distance you travel. But you must begin and end your trip at the same station.

**A  
bright  
new day  
for the  
Bay Area**

# BART



**A bright new day for the Bay Area**

**Published by Bay Area Rapid Transit District, 800 Madison, Oakland 94607**

An advertising supplement to: San Francisco Examiner & Chronicle, Oakland Tribune, Alameda Times Star, Hayward Daily Review, Fremont-Newark Argus, Livermore Herald News, Concord Transcript, Contra Costa Times, Richmond Independent, Berkeley Daily Gazette.

# We finally made it... Thanks for waiting!

It's been a long time coming, but now BART's off-and-running. It's running because the taxpayers of San Francisco, Alameda and Contra Costa Counties had the foresight to approve a \$792 million bond issue in 1962. It's running because of the individual city and county staff members who worked so hard to make it happen. And it's running because of the city and county, state and federal leaders who helped us overcome so many unforeseen hurdles. All deserve a sincere "thank you".

## Birth and Growth

The last ten years have been a period of well-publicized hurdles and highlights. But BART really began back in 1951 with the formation of the nine county San Francisco Bay Area Rapid Transit Commission. The commission was assigned the task of making a comprehensive study of the Bay Area's transit needs. Parsons-Brinckerhoff—the "PB" of PBTB, our consulting engineers—made the feasibility study. Its recommendations resulted in the state legislature's creation of a five-county rapid transit "District." The District's job was to develop a workable plan for a high speed, rapid transit system and, upon voter approval, construct and operate it. Nicknamed "BART," it burst upon the scene in 1957, full of enthusiasm — and a staff of eleven.

The first order of business was to tell the public what we were planning and what progress we were making. Some of the early hands made as many as five speeches a night to any homeowner's group or service club that would listen. One information officer traveled from San Francisco to Half Moon Bay, and gave his presentation solely to the janitor who opened the school auditorium.



by B. R. Stokes,  
General Manager

## From Five Counties to Three

In the Spring of 1962, Marin and San Mateo Counties withdrew from the proposed district. But Alameda, San Francisco, and finally, Contra Costa stood firm. The measure was placed on the November 6 ballot. We needed 60 percent approval of a measure that asked the voters to build and operate a three-county, 75-mile rapid transit system, and to tax themselves to the tune of \$792 million. On November 7 late returns pushed the "yes" vote over the 60 percent mark. The final margin was 61.2 percent, a paper-thin edge, but then no other local public works project of this magnitude had ever made it on the first ballot.

The ballots had hardly cooled before a taxpayers' suit was filed challenging the legality of the District and its contract with the joint venture engineering firms. Although the District won its case, it was a bittersweet victory for BART: the lengthy trial caused a six-month delay.

In June of 1964, President Lyndon Johnson arrived in Concord with a flotilla of helicopters, blowing dust over some 30,000 people gathered at the site of the Diablo Test Track. The President touched

The Fall of 1965 was not a very bright one for BART. Only two bids came in for the downtown Oakland subway construction. The lowest was \$14 million over our engineers' estimates. So PBTB divided the contract into smaller packages, got more bidders, and eventually brought the project within budget. But this cost us almost a year in construction time.

## Money Headaches

BART's reserves were being eroded by an annual inflation rate of close to 7 percent. Several communities asked for changes in the basic plan, so we relocated 15 of our 34 stations and improved their architecture and landscaping. All to the good of the system, but hard on the treasury.

In August 1966 we received our first Federal construction grant. This eventually amounted to nearly \$200 million in Federal aid for everything from landscaping and car purchases to technical studies on extending the network. Construction on both the Oakland and San Francisco subways began at the end of 1967, and in 1968 BART received a \$28 million grant from the U.S. Department of Transportation to help develop and buy its trains.

## The Siege of Sacramento

While all this was going on, our directors and staff beat a path to Sacramento. They urged legislative relief to make up a fund deficit pegged at \$150 million. Construction had taken almost \$700 million and we faced the prospect of giving the Bay Area the world's first ghost system, rather than the rebirth of mass transportation.

Finally, on April 8, 1969, Governor Reagan signed a law temporarily increasing the sales tax in the three BART counties

from 5 to 5½%. It was a banner day for BART. Two days later the final section of the trans-bay tube was lowered into place. And, in July, we awarded a \$67 million contract for 250 streamlined cars.

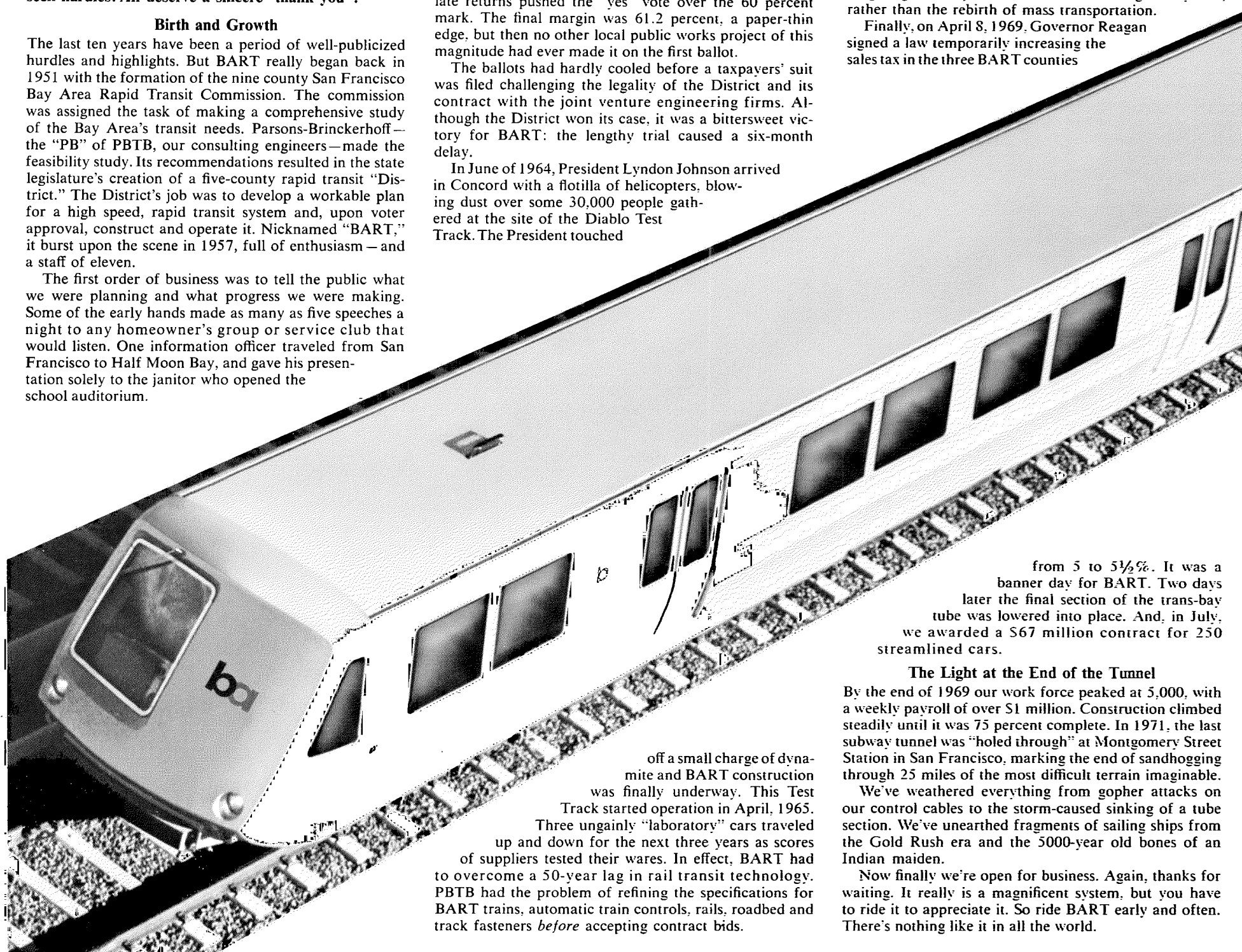
## The Light at the End of the Tunnel

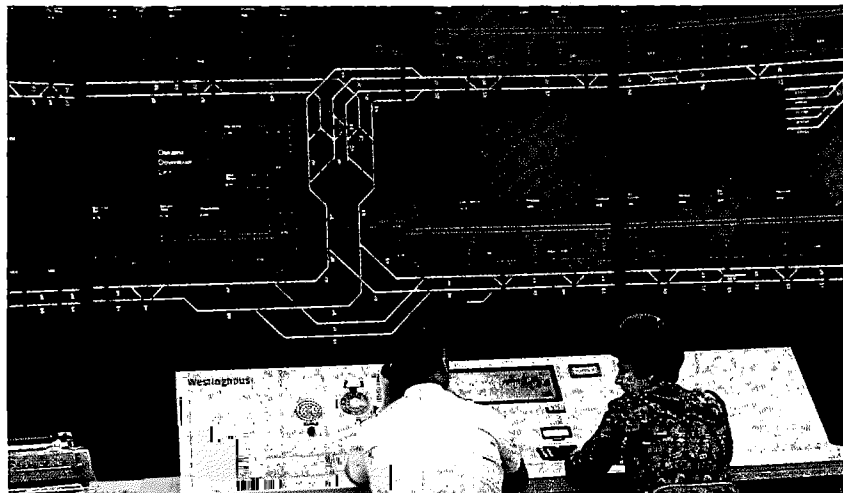
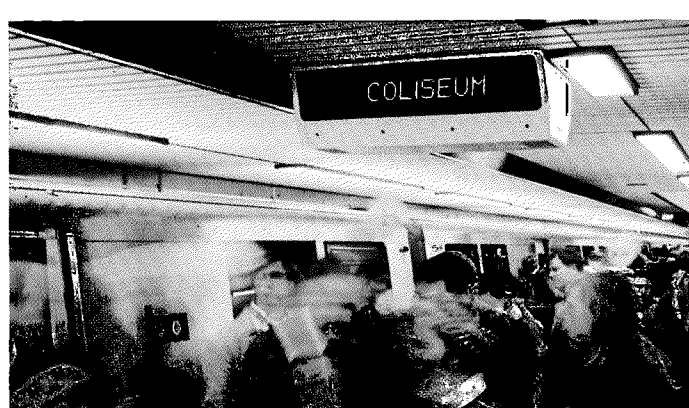
By the end of 1969 our work force peaked at 5,000, with a weekly payroll of over \$1 million. Construction climbed steadily until it was 75 percent complete. In 1971, the last subway tunnel was "holed through" at Montgomery Street Station in San Francisco, marking the end of sandhogging through 25 miles of the most difficult terrain imaginable.

We've weathered everything from gopher attacks on our control cables to the storm-caused sinking of a tube section. We've unearthed fragments of sailing ships from the Gold Rush era and the 5000-year old bones of an Indian maiden.

Now finally we're open for business. Again, thanks for waiting. It really is a magnificent system, but you have to ride it to appreciate it. So ride BART early and often. There's nothing like it in all the world.

off a small charge of dynamite and BART construction was finally underway. This Test Track started operation in April, 1965. Three ungainly "laboratory" cars traveled up and down for the next three years as scores of suppliers tested their wares. In effect, BART had to overcome a 50-year lag in rail transit technology. PBTB had the problem of refining the specifications for BART trains, automatic train controls, rails, roadbed and track fasteners before accepting contract bids.





# “The only thing missing is the clickety-clack”

Engineers, planners, architects and financial experts have invested hundreds of thousands of man-hours and 1.4 billion dollars making BART a reality. But, as far as the Bay Area commuter is concerned, all that is so much water over the dam. What they—and everyone else wants to know is “What’s it like to ride BART?” The only real way to find out, of course, is to buy a ticket and see for yourself. But, since BART is now running on only one of its legs, many people have not yet had the opportunity. So here—in words and pictures—is what to expect:

First, we have tried to make our cars every bit as comfortable as yours. You’ll find wall-to-wall carpet underfoot, extra wide foam padded seats and tinted picture windows that take up almost the whole side of the car. There’s year-round air-conditioning and heating too, and special recessed ceiling lights that ‘focus’ on your newspaper—not on your eyes.

Each car comfortably seats 72 people, with a generous aisle down the center. There are no overhead straps or luggage racks (there’s room for packages beneath each seat) and advertising posters are confined to the areas beside the doors and at the end of each car. You can follow your progress or see where a transfer of trains is necessary on any of the car’s four large route maps.

## What about the ride?

It’s smooth, relatively silent and very fast... top speed 80 mph, 42 mph average *including stops!* But missing, along with the clickety-clack, is the swaying and jiggling you expect on fast-moving trains. BART’s engineers developed their own version of a ‘wide track’ stance to stand up to Bay Area westerlies. Rails are spaced 9½” wider than the world-wide standard 4’8½”. And, to see that the satiny ride is maintained, BART’s entire 75 miles of track can be adjusted in ⅛” increments whenever the slightest wobble is detected.

To make sure the trains run on time, their stops, starts and speed are controlled from BART’s computer center, but every train will have a Train Attendant who can take over manual control should it become necessary. Passengers can communicate with him through an intercom system located at the end of each car.

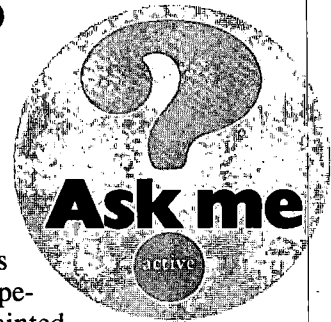
But, the most satisfying part of a BART ride, people tell us, is whisking along next to a bumper-to-bumper Nimitz at 80 miles an hour.

And that, after all, is what BART is all about.





## Got a question?



If you're in a BART station and you want to know which bus goes where—or what time the last train leaves for Fremont—or anything else you think we can help you with, just ask anybody wearing this button. These BART people have been specially trained to help the public get acquainted with the system as smoothly as possible.

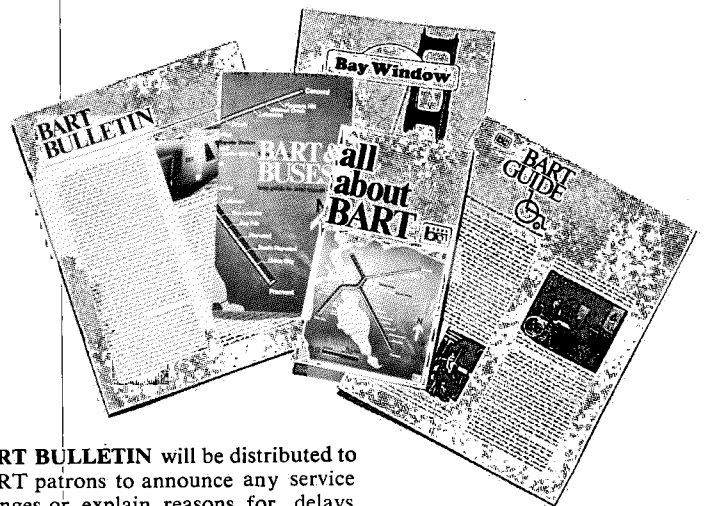
If you are *not* at a station you can get the same kind of help by dialing your area's three number prefix and the four letters B-A-R-T:

Oakland & Berkeley	465-BART	Richmond & El Cerrito	236-BART
Fremont & Union City	793-BART	San Francisco	
Hayward & San Leandro	783-BART	& Daly City	788-BART
Walnut Creek, Pleasant Hill & Concord			933-BART

BART's information center operates daily. There are bilingual Spanish and Chinese speaking operators on duty from 8 to 5.

So if you want to get from here to there in the Bay Area and are not sure how to go about it, just ask. We're happy to help.

## BART PUBLICATIONS



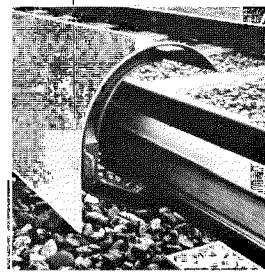
**BART BULLETIN** will be distributed to BART patrons to announce any service changes or explain reasons for delays or other problems.

**BAY WINDOW.** A monthly newsletter for passengers about activities, destinations and events of interest in the Bay Area and how to use BART to enjoy them. To be distributed free in stations.

**BART & BUSES.** A comprehensive map guide to transit travel in the Bay Area. Details coordination of BART routes and bus service, includes schedules of both AC Transit and San Francisco Muni.

**ALL ABOUT BART.** A small folding pamphlet answering most questions about how to use BART. Available in English, Spanish and Chinese editions through BART stations, banks participating in ticket sales, chambers of commerce, hotels, bus depots and the like.

**BART GUIDE.** English and Braille, with information on BART's installations and procedures to aid the handicapped.

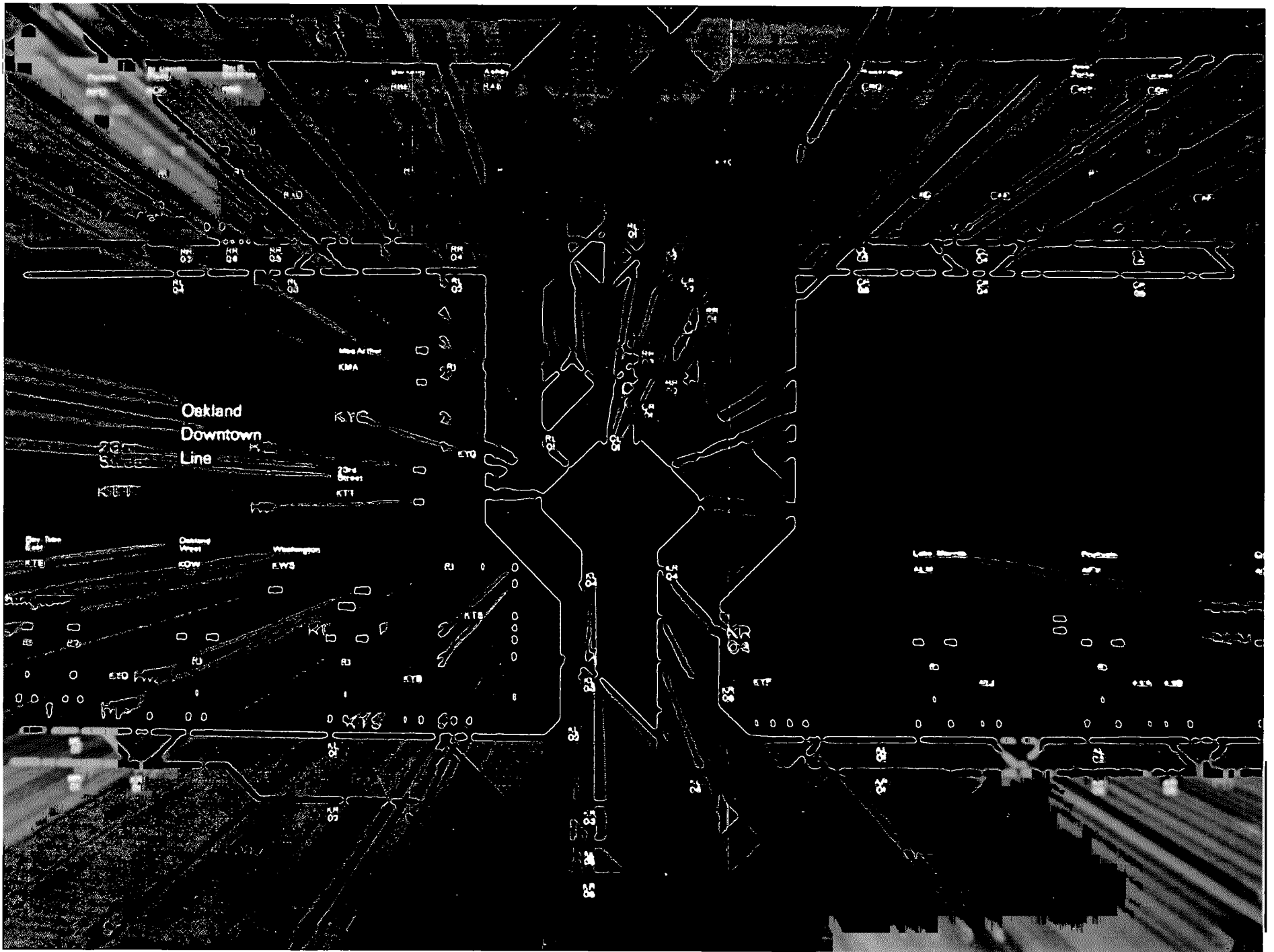


## The 3rd Rail

### A word of caution

BART trains run on two rails, with another rail alongside which carries the electric power. This 3rd rail packs 1,000 volts—enough to drive a 700 foot train at 80 mph!

As you've probably noticed, all BART's surface routes are fenced off from the public. For added safety the 3rd rail is partially covered with a protective shield. But you can help make the system even safer by telling your children to stay well away from BART tracks at all times. The 3rd rail doesn't *look* dangerous but it can inflict serious or fatal injury to anyone who touches it.



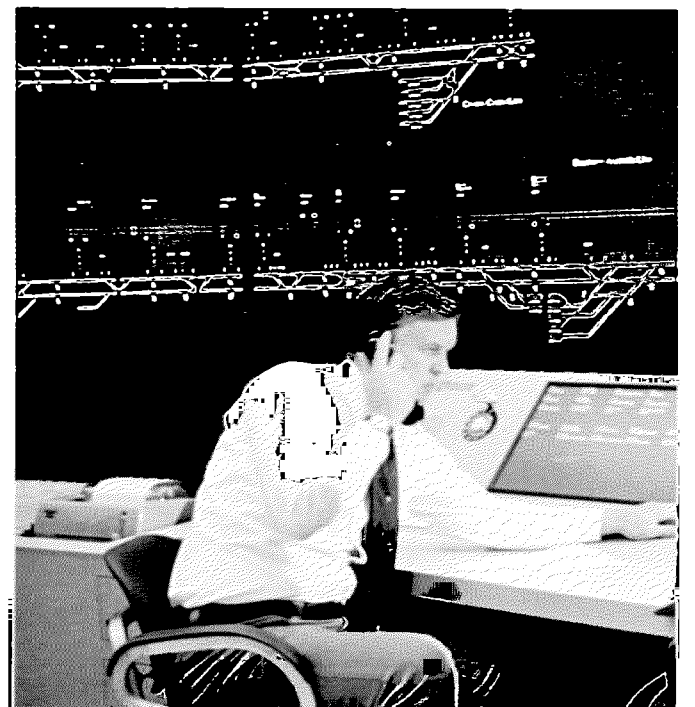
# The Computer and the Commuter

There's one BART first you'll appreciate but probably never see. That's the world's first computer-supervised train control system. Rather than having a lot of trains running on individual schedules, this gets all the BART cars working together. The computer and central supervision constantly adjusts the schedule of each train to maintain an even, efficient spacing.

The system includes a central control complex in BART's Lake Merritt Administration Building, with local control units in the stations, train yards and on the trains themselves, as well as communication links tying them all together. The local units control all the functions relating to safety, such as protective train spacing, speed limitation and locating switches to prevent misroutings.

A giant central computer coordinates the whole system. It cannot override the safety functions of local systems, but can override other decisions, such as the time a train spends in a station, in order to keep everything running at peak efficiency.

Under this system, train acceleration and braking is smooth, safe and completely automatic. The computer determines departure times from yards and stations, and keeps an eye on routings. It requests train speed adjustments and makes other corrections to maintain the best possible service. In all these ways, our computer helps the commuter. By monitoring and supervising the whole network, it cuts operating costs and keeps trains running on an accurate schedule. You might say our computer has helped to bring back good old-fashioned personal service.



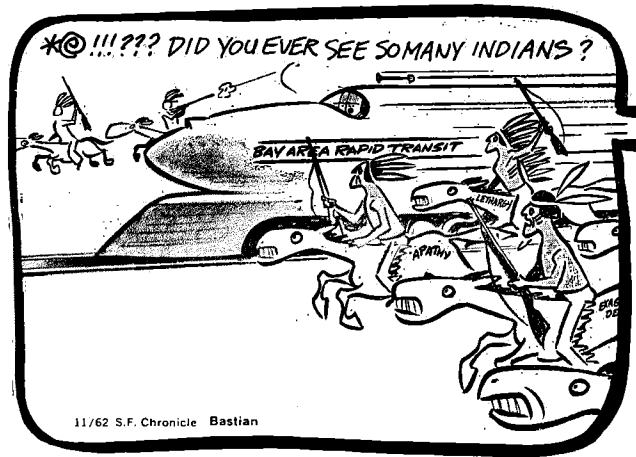


# BART THROUGH THE AGES

**CRACK!**

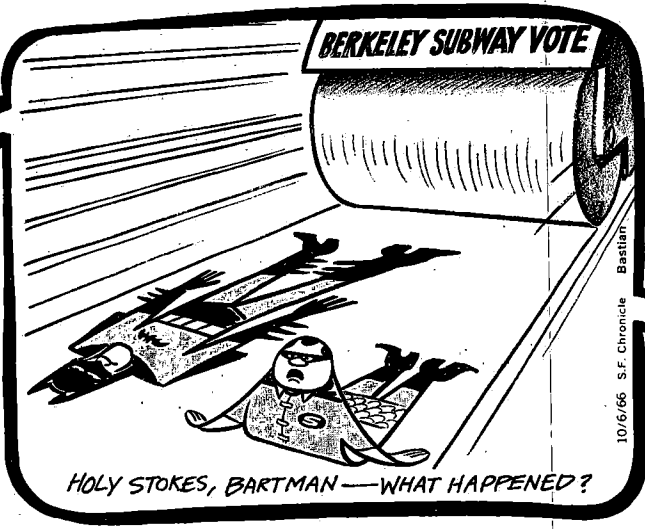


... AS SEEN BY BAY AREA CARTOONISTS



11/62 S.F. Chronicle Bastian

Slings and arrows were in goodly supply in November 1962, as supporters and detractors of BART battled down to the wire on the Rapid Transit bond issue. The righteous prevailed, with passage of the bond issue by a paper thin 61.2%.



10/6/66 S.F. Chronicle Bastian

Berkeley dwellers participated in a vote of their own in 1966, and by a whopping 75% agreed to spend upwards of \$20 million to bury another 3 miles of BART line and two stations. At that time, such additional design and construction loomed as an 18-month delay, a steam-roller, indeed.



11/24/67 S.F. Chronicle Bastian

San Francisco's Market Street appeared somewhat shell-pocked at Christmas, 1967, at the height of BART subway excavation. Some people must have made it through the barriers and over the boardwalks, however; merchants recorded a 6% increase in sales over the preceding year.



8/17/67 Schmidt S.F. Examiner

Miniskirts may have been the style in 1967, but thoughts of a mini-BART brought no admiring glances from BART's Board of Directors. Despite the spectre of a \$150 million deficit, the Board rejected trimming the 75-mile system, and agreed not to commence service until all was built as promised in 1962.



9/24/68 Smith S.F. Examiner

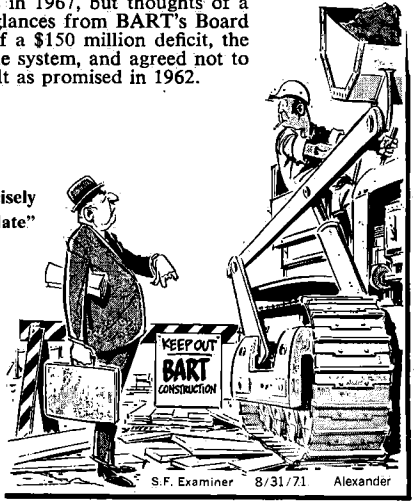
The tattered figure shown above was a familiar sight in Sacramento in 1968—and in 1967 and 1969—as BART struggled to get financial relief. Construction had slowed due to lack of funds, and the nightmarish vision of a \$700 million monument to futility was very much with BART.



3/28/69 Alexander S.F. Examiner

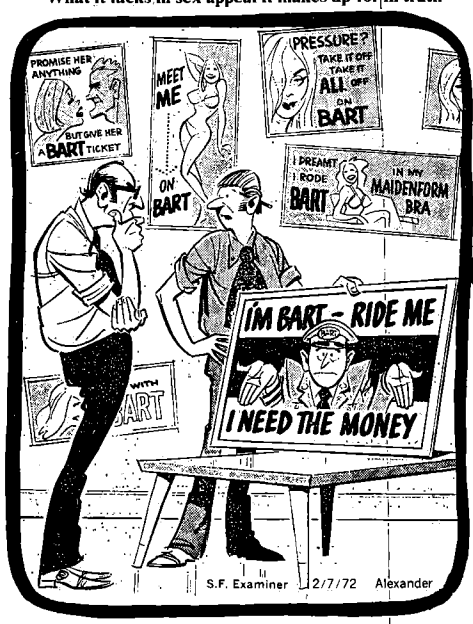
No mirage this time, cooling fiscal waters poured into the parched BART reservoirs in the form of a half-cent increase in the sales tax of Alameda, Contra Costa and San Francisco Counties. Governor Ronald Reagan signed the measure into law on April 8, 1969, providing BART with the \$150 million needed to complete the project.

"Sir, the 7:37 is precisely three years and six days late"



8/31/71 Alexander S.F. Examiner

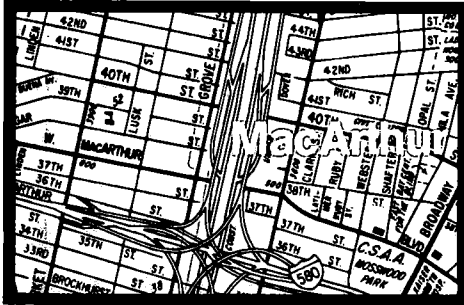
Fund shortages, lawsuits, changes in design, scope and physical amenities of the project—did indeed extend the construction phase of BART, as this Montgomery streeter so frostily points out in 1971. His patience would wear even thinner through the following year, but the end result may tend to thaw him.



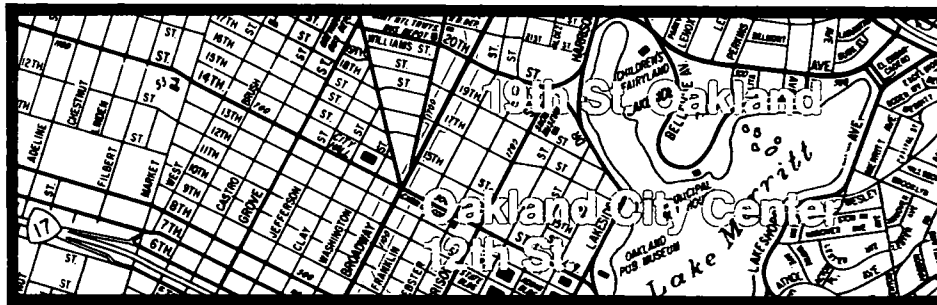
2/7/72 Alexander S.F. Examiner

BART's obligation to pay its operating costs from the fare box, with no taxing power to share the brunt of such cost, is a departure from the usual public transit practice. Consequently, an aggressive campaign was launched to lure the traveler out of his car and onto BART's. Beguiling maidens touting rapid transit's message may not be the answer, but the cartoon's "I need the money" approach is right on the money.

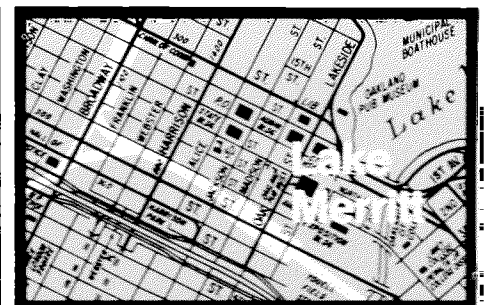
# BART's thirty-four stations



**MACARTHUR** 40th St. between Grove St. and Telegraph Ave.  
 • Free parking for 487 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: "C," 57, 15, 40, 41, 43, 14, 17.



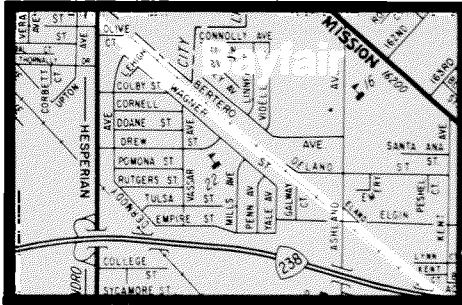
**OAKLAND CITY CENTER** 12th St. Broadway between 11th and 14th Sts.  
 • No parking; no bike racks.  
 • Served by the following AC Transit buses: "A," "T," 11, 12, 14, 15, 18, 31, 32, 33, 34, 36, 38, 40-43, 51/58, 59/76, 72/73, 80, 81, 81A, 82, 83, 88.



**LAKE MERRITT** Broadway between 8th and 10th Sts. from Hwy. 57.  
 • BART headquarters and Computer Control Center; close to Laney College and Oakland Museum.  
 • 250 parking for 110 automobiles; 40 bike racks available.  
 • Served by the following AC Transit buses: 14, 32, 33, 38.



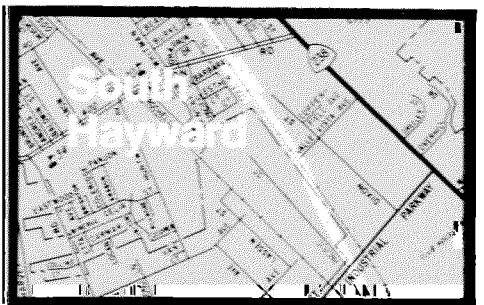
**SAN LEANDRO** San Leandro Blvd. between Davis and Parrott Sts.  
 • Free parking for 923 automobiles; 31 bike racks available.  
 • Served by the following AC Transit buses: N, 55, 60, 66, 81, 81B, 82.



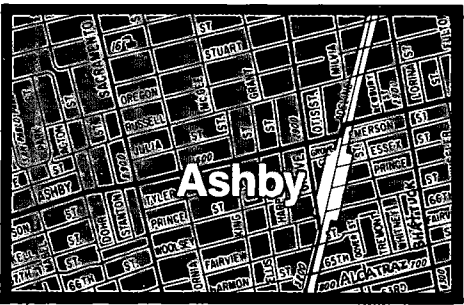
**BAY FAIR** Hesperian Blvd., adjacent to Bay Fair Shopping Center.  
 • Free parking for 1408 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 60, 62, 84, 93, 93A.



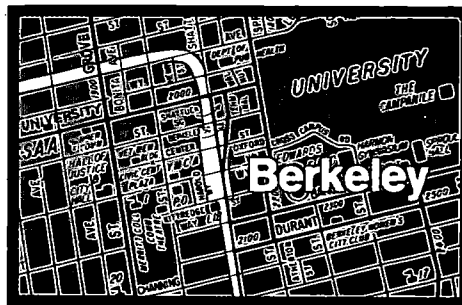
**HAYWARD** Montgomery St. between "B" and "C" Sts.  
 • Free parking for 696 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 60, 80, 81, 81A, 82, 90, 91, 91A, 92, 95.



**SOUTH HAYWARD** Tennyson Rd. and East 12th St.  
 • Free parking for 507 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 82, 91.



**ASHBY** Adeline between Ashby Ave. and Woolsey St.  
 • Free parking for 560 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: "P," 15, 17, 65.



**BERKELEY** Shattuck two blocks south of University Ave. at Center St.  
 • No parking; no bike racks available.  
 • Served by the following AC Transit buses: "F," 7, 15, 40, 43, 43A, 51, 65, 67.



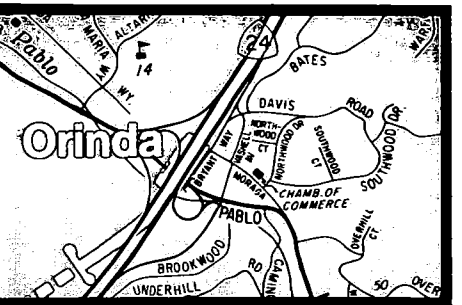
**NORTH BERKELEY** Sacramento and Delaware Sts.  
 • Free parking for 500 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 43, 43A, 51A, 65, 88.



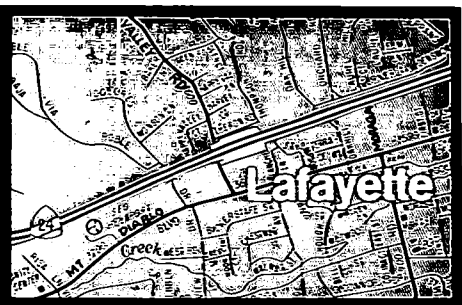
**EL CERRITO PLAZA** Fairmount Ave. adjacent to El Cerrito Plaza Shopping Center.  
 • Free parking for 509 automobiles; 35 bike racks available.  
 • Served by the following AC Transit buses: 51A, 67, 68, 70, 72, 72B, 78.



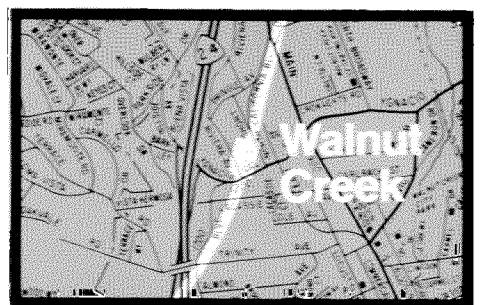
**ROCKRIDGE** College Ave. and the Grove-Shafter Fwy.  
 • Free parking for 776 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 17, 51.



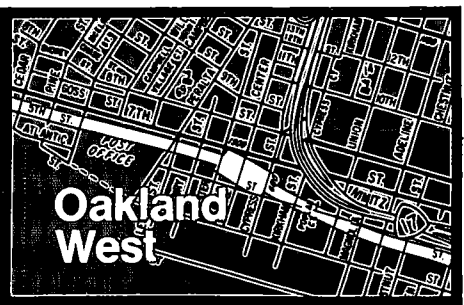
**ORINDA** Camino Pablo and Hwy. 24.  
 • Free parking for 939 automobiles; 18 bike racks available.



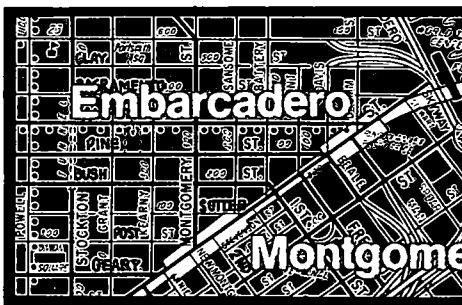
**LAFAYETTE** Deerhill Rd.; Hwy. 24 between Happy Valley and Oak Hill Rds.  
 • Free parking for 682 automobiles; 20 bike racks available.



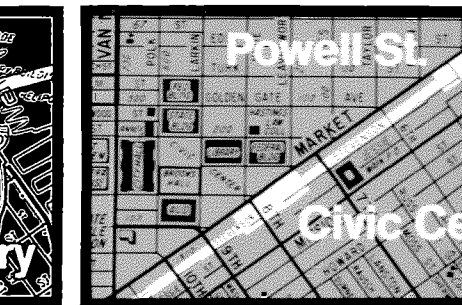
**WALNUT CREEK** Ygnacio Valley Rd. and Northern California Blvd.  
 • Free parking for 1114 automobiles; 18 bike racks available.



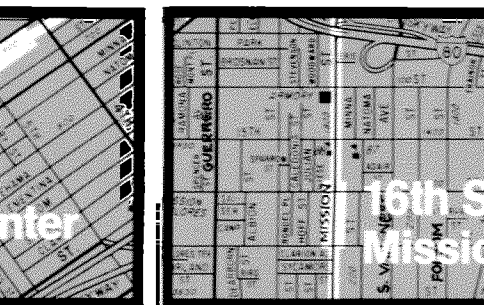
**OAKLAND WEST** Between 5th and 7th Sts., Center and Lewis Sts.  
 • Free parking for 391 automobiles; 20 bike racks available.  
 • AC bus service to be determined.



**EMBARCADERO** Market St. between Spear and Beale Sts. Two blocks from Ferry Building and Marin County Ferry.  
**MONTGOMERY ST.** Market St. between 2nd and New Montgomery Sts. Serves financial district.  
 • Muni bus service to be determined.  
 • No parking; no bike racks.

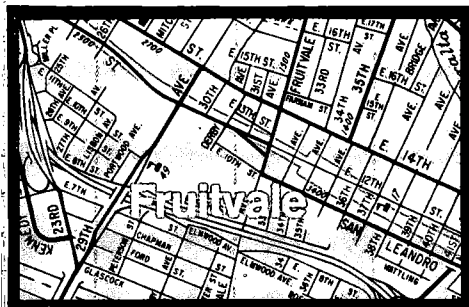


**POWELL ST.** Market between 4th and 5th Sts. Serves Union Sq., shopping and hotel district.  
**CIVIC CENTER** Market between 7th and 8th Sts. Serves City Hall, lower Market St.  
 • Muni bus service to be determined. Cable cars to Nob Hill and Fisherman's Wharf.  
 • No parking or bike racks available.

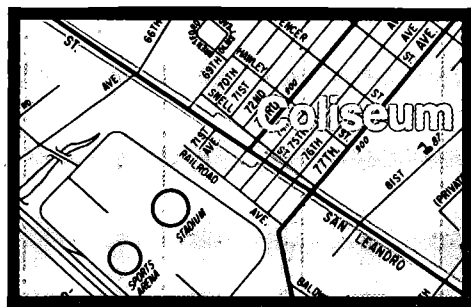


**16TH ST. MISSION** Mission and 16th Sts.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.

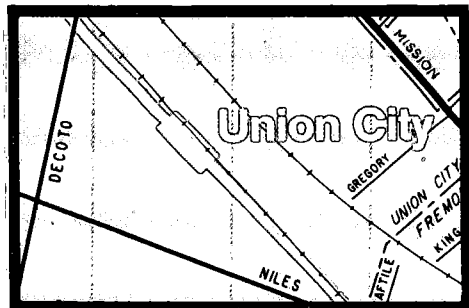
**All you need to know about where they are, whether you can park, and which buses serve the station.**



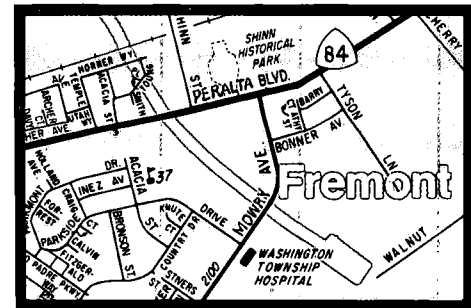
**FRUITVALE** 35th Ave. and East 12th St.  
 • Free parking for 730 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: 53, 54, 64, 79.



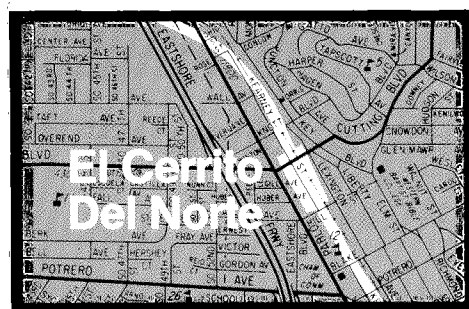
**COLISEUM** San Leandro St. between 70th and 73rd Aves.  
 • Free parking for 923 automobiles; 19 bike racks available.  
 • Served by the following AC Transit buses: 56, 57 (to airport).



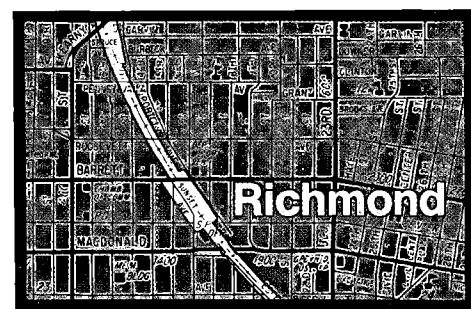
**UNION CITY** Decoto Rd. and Western Pacific R-O-W.  
 • Free parking for 485 automobiles; 18 bike racks available.



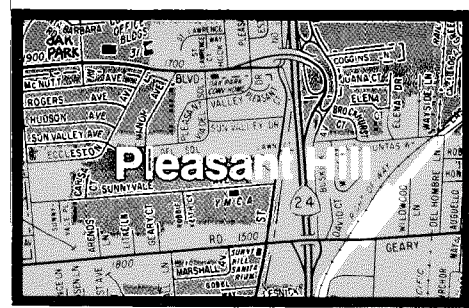
**FREMONT** Civic Center Pl.; 2 blks. southeast of Mowry Ave.  
 • Free parking for 700 automobiles; 21 bike racks available.



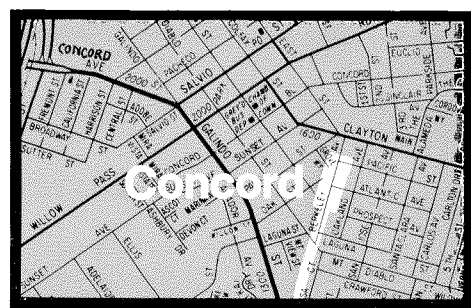
**EL CERRITO DEL NORTE** Cutting Blvd. and Hill St. 2 blks. from Hwy. 80, 1 blk. from San Pablo Ave.  
 • Free parking for 985 automobiles; 36 bike racks available.  
 • Served by the following AC Transit buses: 68, 70, 72B, 72C, 72M, 78.



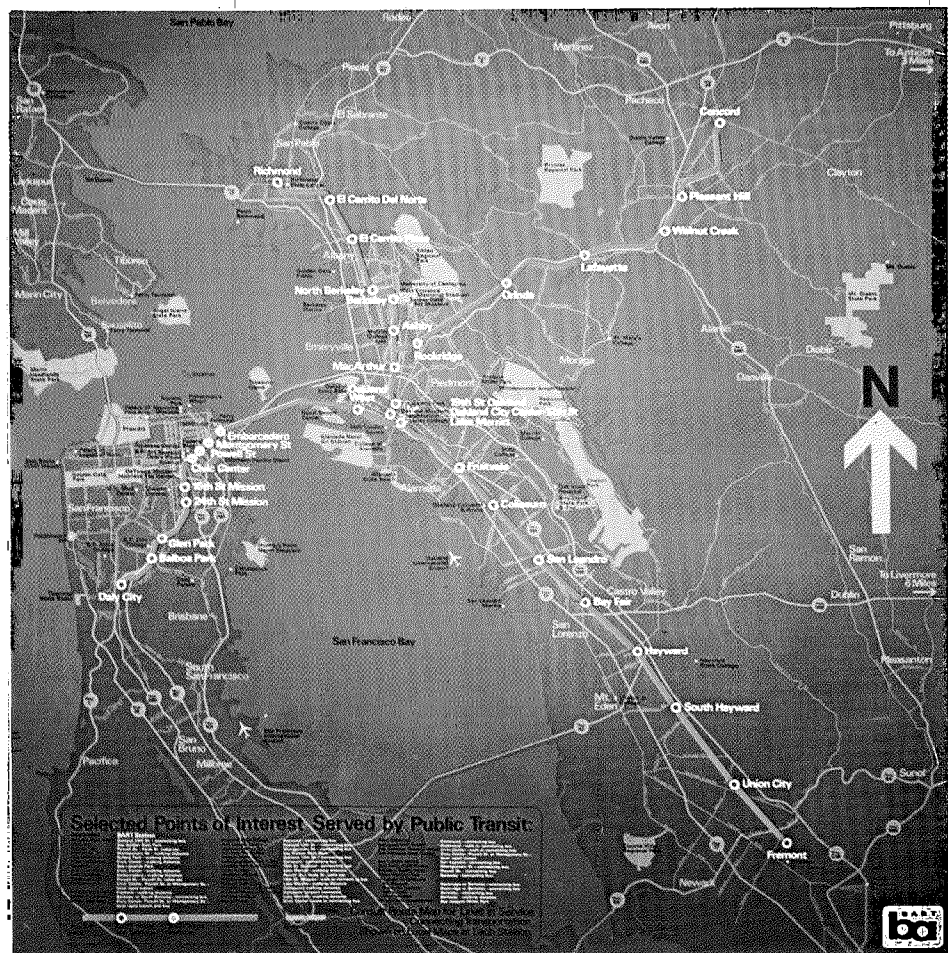
**RICHMOND** Nevin Ave.; between 16th, 18th Sts. and Macdonald Ave.  
 • Free parking for 783 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: 68, 69, 72, 78.



**PLEASANT HILL** Geary Rd. and Del Hombre Ln.  
 • Free parking for 1,337 automobiles; 20 bike racks available.

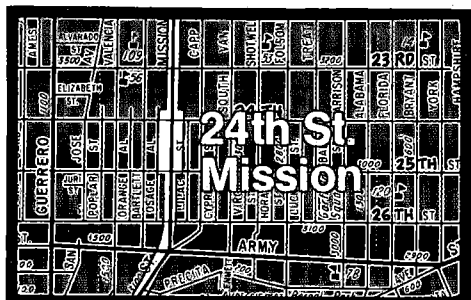
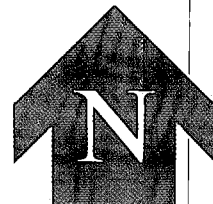
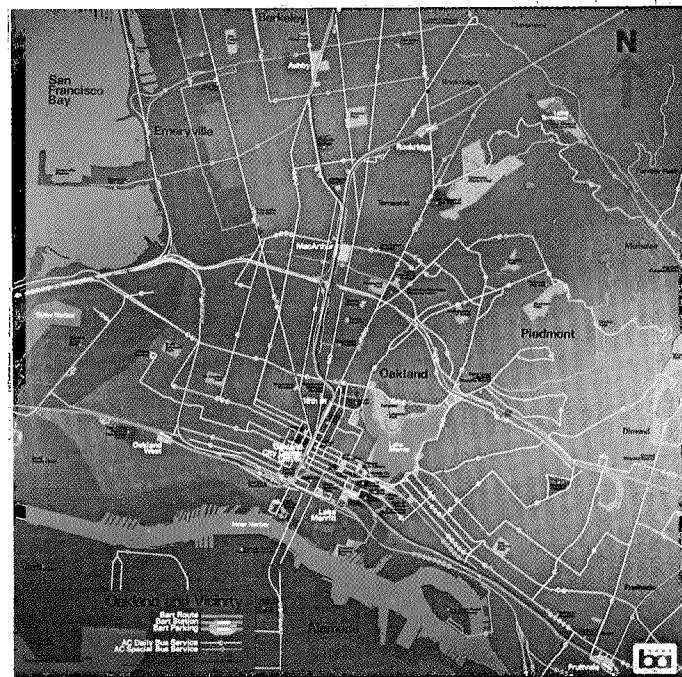


**CONCORD** Atlantic and Oakland Aves.  
 • Free parking for 1,059 automobiles; 20 bike racks available.

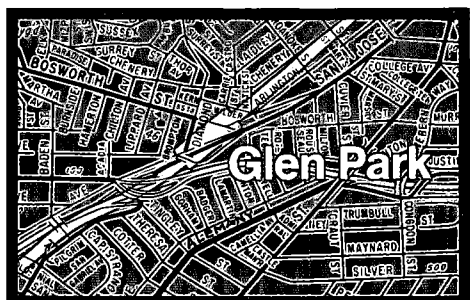


**REFERENCE MAPS**

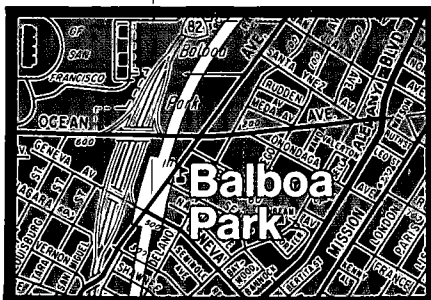
Each BART Station displays several of these large Points-of-Interest maps covering the entire Bay Area. The locations of over 40 of the more popular Bay Area attractions are shown in relation to the BART System. Also prominently displayed are large scale Local Area maps which cover the area around the station.



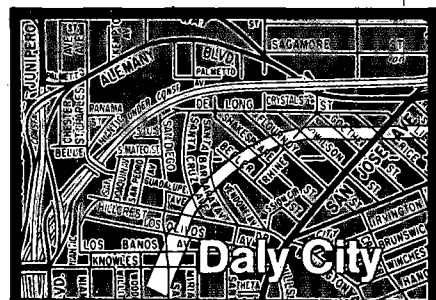
**24th ST. MISSION** Mission and 24th Sts.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



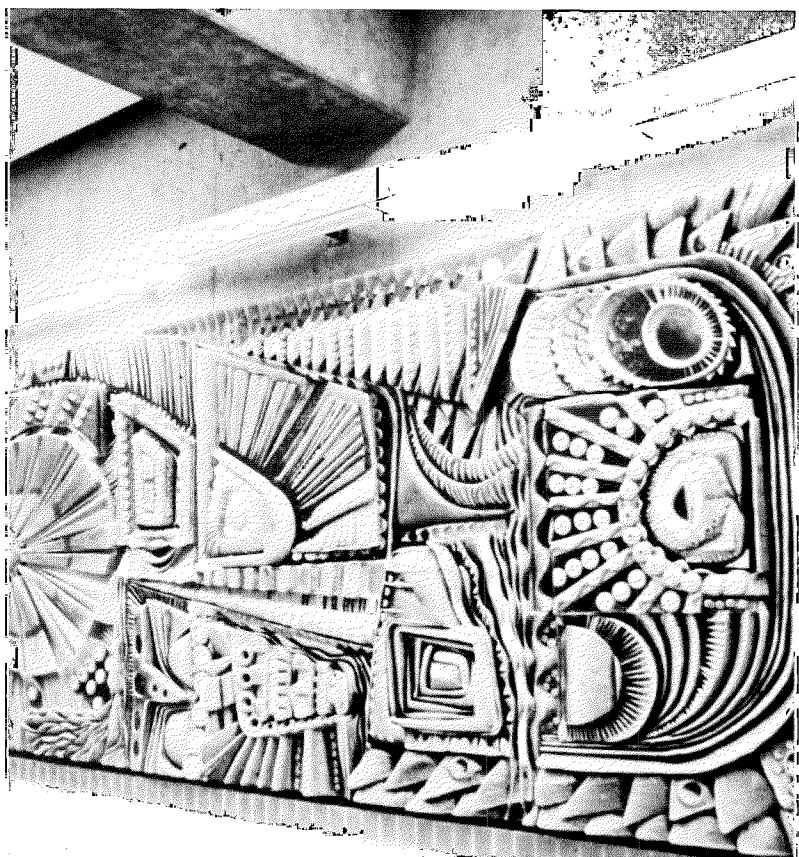
**GLEN PARK** Diamond and Bosworth Sts., near San Jose Ave.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



**BALBOA PARK** Geneva and Ocean Aves. at Tara St. One block from Balboa Park; direct access to Hwy. 280.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



**DALY CITY** Knowles Ave. between Niantic and San Diego Aves.  
 • Free parking for 785 automobiles; 20 bike racks available.



# Look what has

Subways or Rapid Transit have been around for a long time. London opened its first Underground stations in 1863. And New York's first stations on the old IRT line were opened to the public in the summer of '04.

Long years of service (and lack of funds) have taken their toll on what were once efficient, although perhaps austere, stations. As a result, many people have an image of the typical 'subway' station as an ugly place with dingy masses of concrete and narrow, drafty corridors.

But architecture has come a long way in the past hundred years. Today, public building has to be not only functional, but beautiful as well. And, as far as BART's planners were concerned, there was another very important aspect that had to be borne in mind. Each of

BART's 34 stations was, in effect, a Johnny-come-lately to the community. People had established a way of living they felt comfortable with and might, understandably, look upon the arrival of BART as an interruption to the accepted 'pattern' of their community. So BART's 14 subway and 20 aerial stations were specifically designed to fit in with their surroundings.

Variety and a healthy sense of competitiveness were achieved by appointing sixteen different architectural firms, eight landscape architects and several graphic designers and artists.

Wherever possible stations have been kept spacious and open to allow natural light to reach concourse and track levels. The result is a variety of skylights, glass walls, and



# happened to the 'subway' station.

sunken plazas. In Berkeley's Ashby Station, even the parking lot has been lowered so that the sun can light the mezzanine and platforms.

In downtown areas of Oakland and San Francisco, the stations are simple, efficient, and businesslike, brightened by large areas of color. In contrast, stations like North Berkeley, with its domed roof and skylight, or El Cerrito Plaza, with its rich earth coloring, have a more relaxed, residential air.

From the brick plaza at Lake Merritt Station in Oakland, you can look down onto an airy fountain with pool and ferns. This garden-like area is surrounded by a concrete wall sculptured with birds and fish. Behind this 200 foot mural is BART's computer control center—the artist thoughtfully leaving peepholes so passers-by can see what makes the entire system tick.

In all, fifteen stations contain works of art specifically commissioned for them. MacArthur Station's mezzanine is brightened by colored mosaics. Two townscapes decorate Union City Station. In San Francisco, the Mission Street Stations are enhanced by giant concrete bas reliefs in an Aztec motif and brightly colored tile.

Historically, overhead stations and their tracks have often blighted the areas they pass

over. But BART's architects, with the help of a \$400,000 federal grant, found ways to actually improve these areas. Beneath 2.7 miles of track in Albany and El Cerrito, there are now 'linear parks'; green lawns, pine trees and flowering shrubs—even a shuffleboard court and a tot lot.

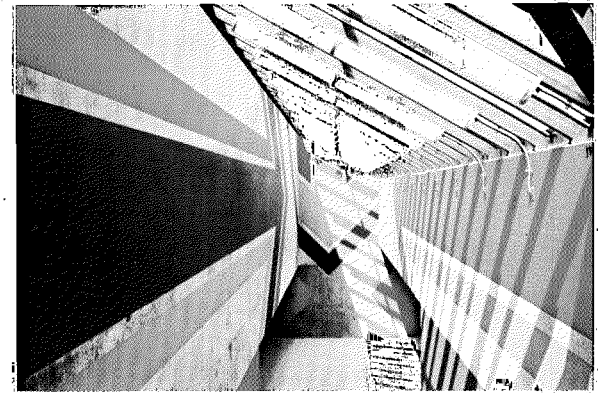
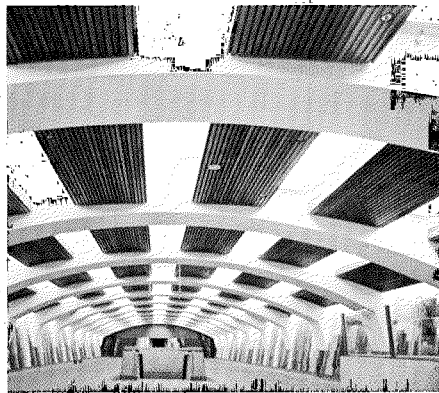
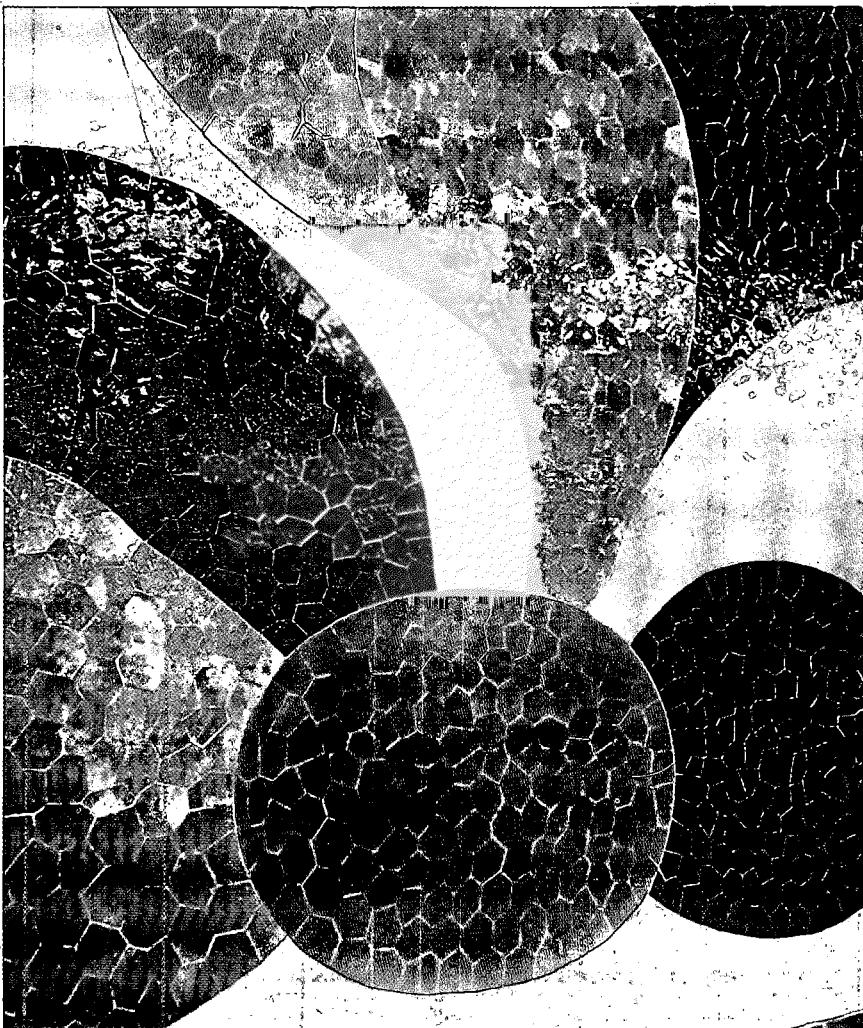
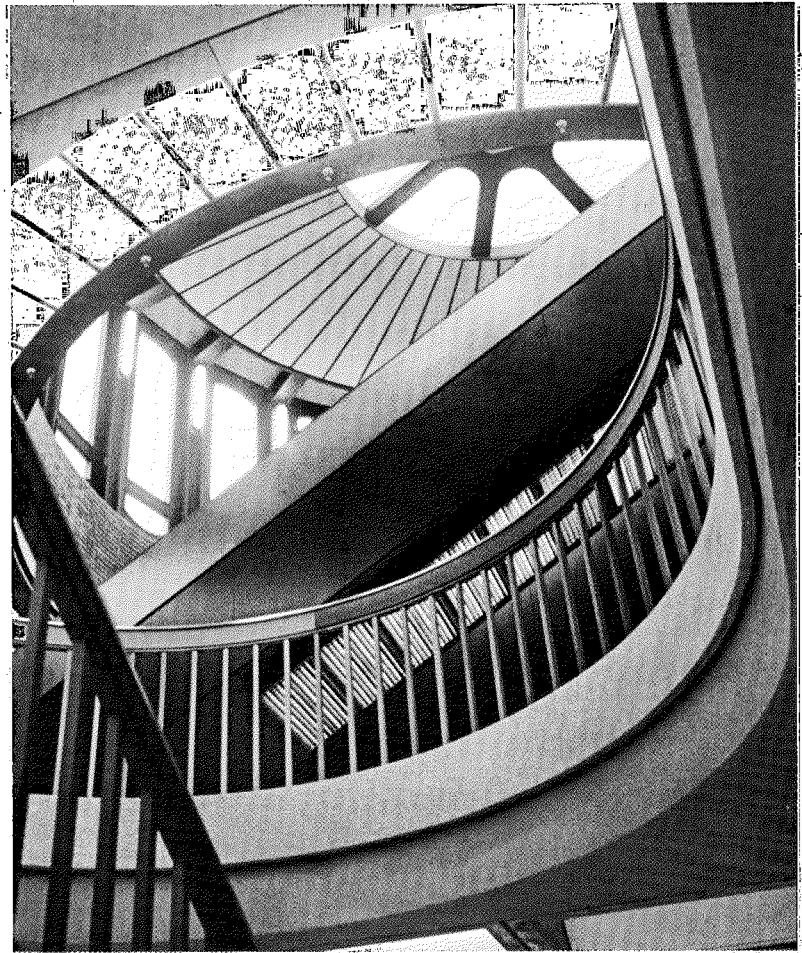
Of course, there's a lot more to BART stations than meets the eye. You can move from one level to another by stairs or escalator and, for the handicapped, there are special elevators set apart from the main rush of passengers. And, for your convenience, there are telephones, vending machines with candy, coffee, soft drinks and cigarettes. Also storage lockers and newspaper stands.

We have tried very hard to make BART stations a lot more than places to get on and off trains. We hope you agree the effort was worth it.

**TOP LEFT:** *Bas relief in Aztec motif at the Richmond Station.*

**LOWER LEFT:** *The plaza at Lake Merritt Station.*  
**RIGHT:** *Sunlight reaches below ground platforms at Berkeley Station.*

**BELOW LEFT:** *Mosaic mural at MacArthur Station.*  
**CENTER:** *Vaulted roofs at 16th-Mission Station.*  
**RIGHT:** *Super-graphics brighten Coliseum Station.*  
**LOWER RIGHT:** *Map display area and ticket machines at Lake Merritt.*



# Buying your first ticket.

To some people, BART's fare collection machinery seems a little complicated at first, but system testing with every kind of passenger—from young children to 80-year-old grandmothers—indicated all caught on pretty well the second time around.

For those who have not had a chance to ride BART...

*Here's your first time around:*

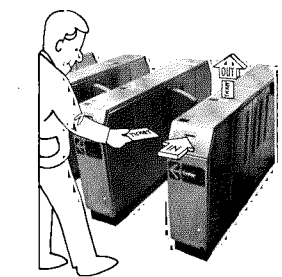
BART fares are graduated: the farther you travel, the more you pay. The procedure is entirely automated, employing a kind of "credit card" ticket that you use to enter and leave the system. You slip your ticket into the entry gate and the machine lets you into the station. As you pass through, the entry gate pops your ticket back to you. It's exactly the same when you leave a station.

That's all there is to the basic idea—but let's start from scratch and imagine you are buying your first BART ticket... As you enter the station you go to a ticket vending machine.

Start giving this machine your money and watch the changing total in the lighted "window" marked *ticket value*. The machine will take anything from a nickel to a five-dollar bill and issue tickets valued anywhere from 30¢ to \$20. The total tells you how much you've put into the machine. When you reach the value you want, press the *Issue New Ticket* button and a new ticket is issued with what you paid stamped right on it. This machine can even take an old ticket, "read" how much value is left on it and credit it towards a new one!

The change machine next to the ticket vender may prove useful if you want to buy a ticket in an exact amount.

Now, with your ticket in hand, go to the entrance gate and insert the ticket in the slot. In 8/10ths of a second, your ticket pops up. Lift it out, and the orange gate slides open. You're in!



You can also pass through the entry gate with coins. There is a coin slot which will take the minimum fare of 30¢. The entry gate issues tickets good for BART's minimum ride as you pass through. This ticket does not have "30 cents" stamped on it, but don't worry, BART's machines will know what it's worth.

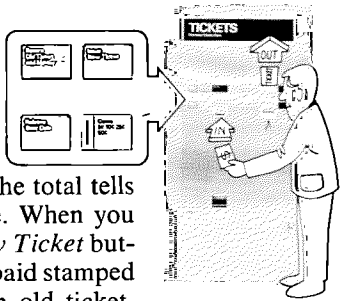
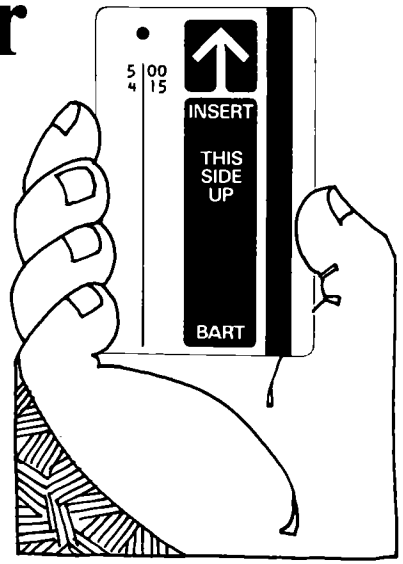
At the end of your ride the procedure is the same. You give the exit gate your ticket. Provided it has enough value on it to cover your trip, the machine will automatically deduct the correct fare and, if value remains on the ticket, return it to you as it opens the gate.

But let's say your ticket has insufficient value: it reads 30¢ and your trip cost 65¢. In this case, the exit gates will not open. Your ticket will be returned, and a little sign on the gate will flash "*Ticket Underpaid—Go to Addfare.*" In this case, you simply pick up the ticket and step over to an "*Addfare*" machine. Insert the ticket and a lighted panel will tell you how much money you need to add to the ticket to get out. (A change machine next door is there to help you make the necessary adjustments.) When the window marked "*Additional Fare Required*" reads zero, the Addfare machine will flash: "*Good for Exit.*" You go back to the exit gate and, this time, the ticket lets you through.

This has taken a lot longer to explain, in words and pictures, than it takes in practice. But, should a passenger—at any time—think the machines have got the better of him, the *Station Agent* in the Information Booth by the machines will sort it out. That's what he's there for.

One thing to remember is that BART's machines "think" with magnetic tape. The ticket's brown stripe is encoded with all the value, entry, exit and timing information. Rough handling or exposure to a magnet could destroy its usefulness. It's just like money, so keep it in a safe place.

People often ask why BART needed all this space-age machinery? The answer is simple. Speed and convenience. From the outset, BART's planners and engineers knew that for people to switch from their cars to rapid transit the whole experience had to be easy and enjoyable. And that definitely includes how easy it is getting into and out of the stations.



# Getting there is

When they set out for their Saturday sailing lesson at Lake Merritt, Nick and Bob Wilson decided it was a good opportunity to take their



The boys follow BART's blue and white 'pathfinder' signs down Decoto Road right up to the Union City station...

... and leave their bikes in the rack by the entrance. (You can't take bikes on BART trains.)



The tickets go in and the orange panels slide back before you can say "Open Sesame." Now for the trains!



A quick look to check they're headed for the right platform,

and they're up the stairs two at a time...



just in time to make the Richmond train.



At the Lake Merritt Station, Bob checks the local map to see if the lake is close enough to walk to. (It is.)



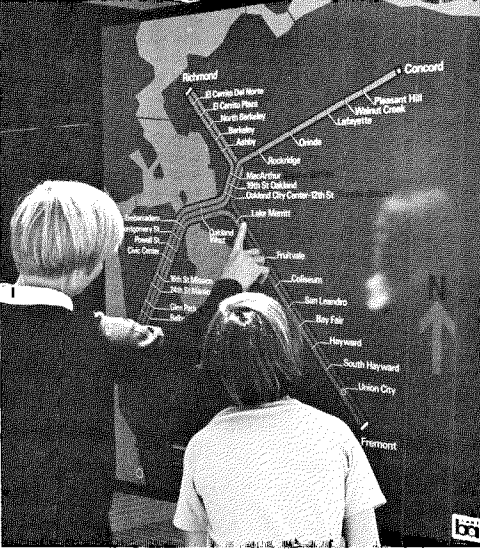
They get out of the station the same way they got in—except that these exit gates deduct the fare for the ride.



A peek through the wall at BART's Lake Merritt computer center which makes the entire system run...

# half the fun.

first ride on BART. We sent a photographer along to snap what happened.

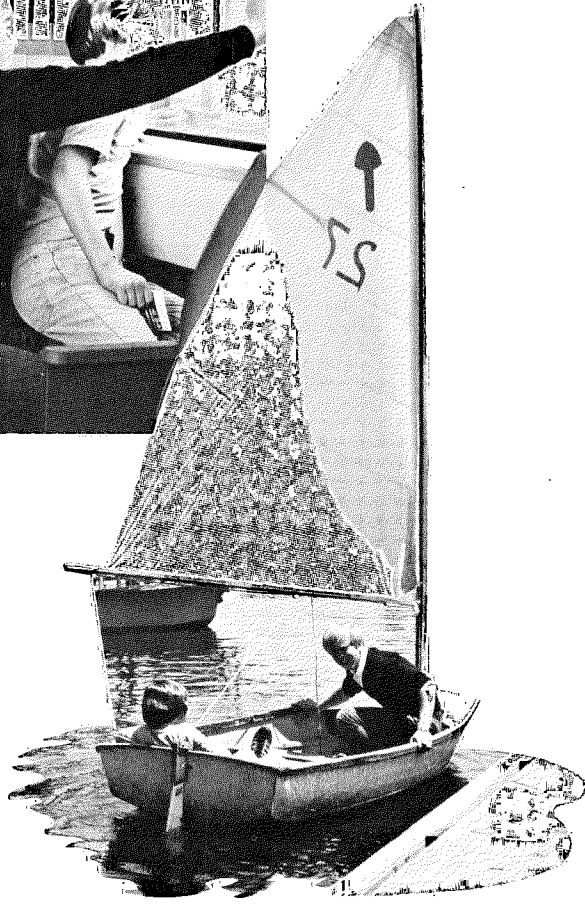
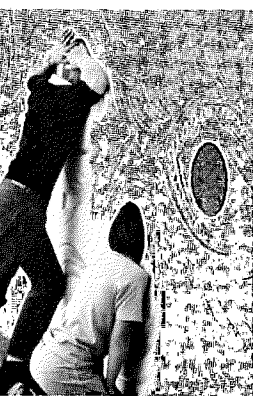


Outside the station they do what everyone does first time out—they figure out where they're going and what station to get off at. Several of these large scale Route maps are displayed at every BART station.

Bob puts a dollar, two quarters and two dimes in the ticket machine, presses the magic button and out pops his round-trip ticket. (Since Nick is not yet 13 his dad has already bought his special red discount ticket at a local bank.)



During their 20 mile, 22 minute trip to Lake Merritt, Bob and Nick get a chance to see several stations.



and they're off... and sailing!

## You'll be seeing a lot of these BART people:

**BART Train Attendants** are up front of every train. Their responsibility is overseeing the operation of the BART cars and making inter-com announcements of train destinations and other information.

**Line Operations Supervisors** are in charge of Train Attendants and Station Agents as well as the trains. It's their responsibility to keep things running smoothly.

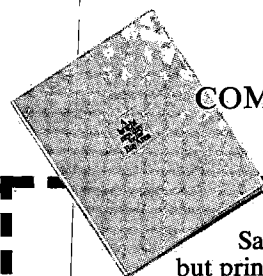
Every BART station will have at least one **Station Agent**. He serves as the 'manager' of that location. He's there to advise, inform and assist, either personally or when you call him on the white courtesy telephones placed throughout each station.

BART has its own **Security** people regularly patrolling stations, trains and parking areas.

Look for our **BART Passenger Representatives**. They are mobile extensions of our Station Agents, acting as special service assistants.



A limited number of this **COMMEMORATIVE PUBLICATION** is available in deluxe edition.



Same size and content as this rotogravure supplement, but printed on high quality glossy paper. Hard bound cover in blue and silver. A collector's item.

Each copy \$7.50. Postage and tax included. Mail to: BART Passenger Services, 800 Madison Street, Oakland, California 94607.

Please send me \_\_\_\_\_ copies of the deluxe edition of BART's Commemorative Publication at \$7.50 each.

I enclose \$\_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zip \_\_\_\_\_

# PRESIDENT'S MESSAGE

by George M. Silliman, President, Board of Directors, Bay Area Rapid Transit District

As one of the two current BART directors with 15 years of service on the Board, I have watched the BART system emerge from the tenuous dreams of its inception to the people-carrying reality of today.

The final product didn't come quickly, cheaply or easily but, as the pages of this publication indicate and a ride will confirm, the BART system is one of the best investments made by the people of the Bay Area.

It is an investment that achieves the immediate goal of providing a most efficient transportation service to millions of people and a giant step towards the achievement of the long range goal of providing an instrument for coordinated urban planning for the entire Bay Area.

The BART system is the nucleus of a transportation system that will eventually serve all 9 Bay Area Counties. With only a 28 mile segment of the 75 mile system in operation, expansion is already on the drawing boards. Under actual study are rail transit links to both San Francisco and Oakland airports; the Antioch-Pittsburg area of eastern Contra Costa County; the Livermore-Pleasanton region of southeastern Alameda County; and the northwest segment of San Francisco.



George M. Silliman, Alameda County

Federal funding is easier to come by today than it was in BART's pioneering days in the 1950's and 1960's, making earlier starts on our extensions much more attainable.

A 300 mile rapid transit system embracing all nine Bay Area Counties will not happen overnight, nor be without its problems, but it is much closer to reality than ever before. It may sound like an optimist's dream, but then, so did a 75 mile system back in 1962. I am convinced that such a dream can be fulfilled and know my conviction is shared by current and former board members, who have given their time and talent in guiding this project.

Those former board members are:

Mr. Frank N. Alioto, Mr. Richard A. Bancroft, Mr. Newell B. Case, Mr. Thomas F. Casey, Jr., Mr. Allen E. Charles, Mr. Felix Chialvo, Mr. H. L. Cummings, Mr. Arthur J. Dolan, Jr., Mr. Adrien J. Falk, Mr. William S. Godfrey, Mr. Garland D. Graves, Mr. Thomas Gray, Mr. Stanley T. Grydyk, Mr. Robert Higgins, Mr. John C. Houlihan, Mr. Wallace J. S. Johnson, Mr. Marvin A. Joseph, Mr. Roger D. Lapham, Jr., Mr. Clair W. MacLeod, Mr. Harry L. Morrison, Jr., Mr. J. Joseph Sullivan and Mr. Sherwood Swan.

## DIRECTORS

### ALAMEDA COUNTY



Arnold C. Anderson  
Past President



Richard O. Clark



H. R. Lange

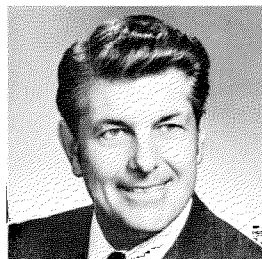
### CONTRA COSTA COUNTY



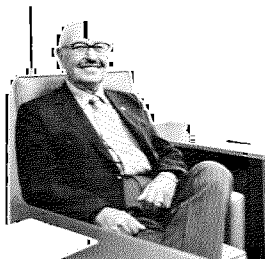
Nello J. Bianco



James P. Doherty  
Past President



Daniel C. Helix



Joseph S. Silva

### SAN FRANCISCO COUNTY



William H. Chester,  
Vice President



William C. Blake



Thomas F. Hayes



William M. Reedy  
Past President

# The corporate team that brought BART into being

The assignment that was handed to BART's engineering consultants some 20 years ago was direct and simple: "Produce the world's best mass transportation system for the people of the San Francisco Bay Area."

To deliver this, no one engineering firm could carry the full load. So three outstanding firms formed the joint venture of Parsons Brinckerhoff-Tudor-Bechtel and undertook the job of designing, engineering and management of the construction of the entire BART system.

PBTB did its job by recruiting the greatest engineering design team that ever has been assembled. BART's requirements over the years occupied a corps of thousands of civil, structural, mechanical and electrical engineers, as well as essential specialists such as supervising architects who coordinated the work of planning 34 community-oriented stations.

Obviously, planning for people has to be done by people, so perhaps you would like to know that PBTB's Board of Control is composed of John P. Buehler, of Bechtel Corporation; Walter S. Douglas of Parsons, Brinckerhoff, Quade & Douglas; and Louis W. Riggs of Tudor Engineering Company. Their project director in charge of the BART job is W. A. Bugge.

Bechtel is one of the world's leading engineering firms, operating in 38 countries from its San Francisco base. Its staff of about 6,000 engineers designs and builds hydroelectric, fossil fuel and nuclear power projects, mining developments, refinery and pipeline projects and mass transportation systems. The company is highly experienced in designing and building service facilities for people. It was Bechtel's expertise in automation and large-scale electric projects that established the criteria for BART's automatic train control and \$55 million electric power system.

Parsons, Brinckerhoff, Quade & Douglas, based in New York, is outstanding in transportation planning. Founded by General William Parsons, the designer and builder of the first New York subways and a consultant on the London subway, the firm was the logical choice to perform the original feasibility study on BART. This led to formation of the joint venture and the assignment to design and supervise the building of the system. The company's record includes such accomplishments as the planning and design of 4,000 miles of highways, 1,300 bridges, and mass transportation systems in ten cities.

San Francisco's Tudor Engineering Company is widely known for transportation planning and engineering, including highways, bridges, port facilities and mass transit. Tudor's engineers also have completed transportation studies in Alaska, Hawaii, Contra Costa and Marin Counties and Seattle in the United States, as well as in Latin America.

These three firms had a reservoir of capability to run a railroad right-of-way through tubes under the bay, to tunnel the Berkeley Hills, to provide BART customers with a new kind of high-speed, quiet, comfortable train, operating over 75 miles of line, stopping at 34 convenient stations, self served by a space-age ticket vending system, and with the innovation of an automatic electronic train control system. All this with the overriding requirements of safety and reliability.

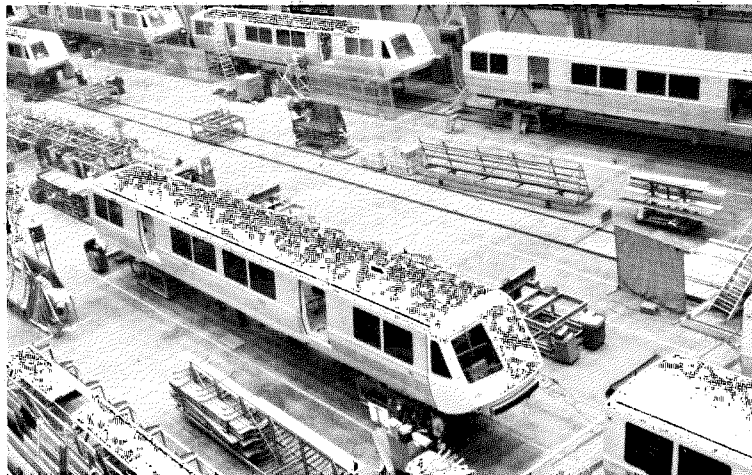
Having delivered on BART, PBTB's people are now in demand in other cities. In Atlanta, they are planning a \$1.3 billion rapid transit system. In St. Louis, they have completed a study for an integrated train and bus system. In Caracas, Venezuela, they have just finished plans for a \$700-million transit network.

But BART is the favorite of PBTB's staff. Some of them have been working on it almost 20 years! They have had a long, close involvement with this people-oriented project that crossed so many new frontiers of technology. In more ways than one, it was the job of a lifetime.



# These firms, working with BART, helped finance the production of this book

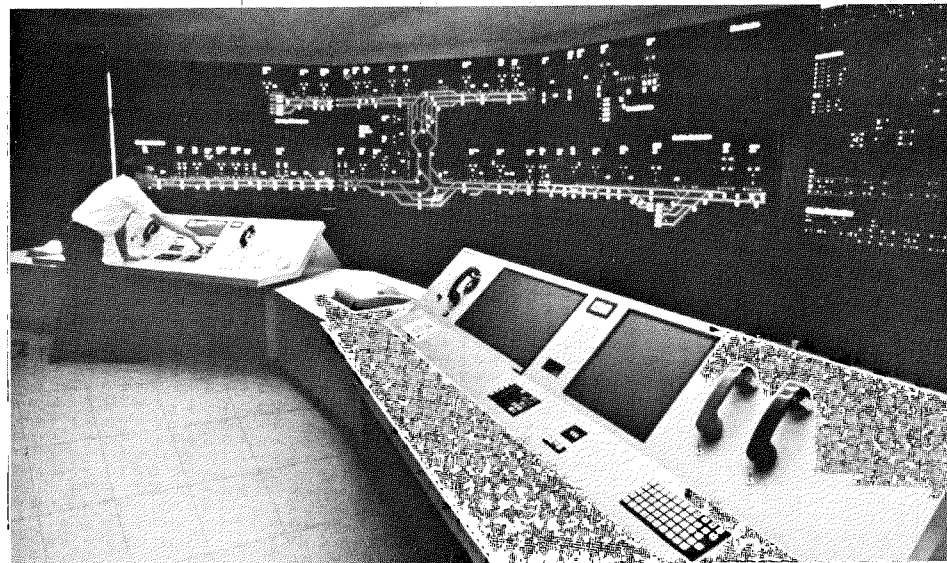
## Rohr Industries builds the BART car.



Rohr Industries also builds rapid transit cars for Washington, D.C.; provides half the nation's city transit buses; builds the Monocab people mover that was the hit of Transpo '72; is developing the Aerotrain air cushion vehicle, the ROMAG magnetic vehicle, and is engaged in a wide range of research projects for transportation of the future.

**ROHR**

— helping engineer a better tomorrow



## Westinghouse equipment and systems are working at BART

Westinghouse Electric played a big part in making BART a reality.

BART is a showcase of modern mass transit. Westinghouse supplied the automatic train control, the advanced propulsion equipment, as well as air conditioning and computers. In addition, we supplied car testing equipment, escalators, elevators, and lighting equipment.

Westinghouse is also playing a key role in other transit systems such as New York City; Washington, D.C.; Sao Paulo, Brazil; and both Seattle-Tacoma and Tampa International Airports.

You can be sure...if it's Westinghouse



## BART and IBM

BART is a major step forward for a progressive American city striving to meet the needs of its people and to improve the quality of urban life — IBM takes pride in its contribution to that achievement through its development of BART's automatic fare collection system.

IBM is working to meet man's needs on many fronts—helping to speed the mail, to fight pollution, to improve the administration of justice, to enhance the safety of travel in our nation's skies.



Gallagher & Burk

Kaiser Industries

McGuire & Hester

Midland Industrial Electric Co.

Morrison-Knudsen Co., Inc.

Newbery Electric Corp.

Perini Corp.

Winston-Drake-Early

**Boss Group Companies** offer complete uniform and career apparel services including designs, manufacture, sales and rental, plus complete system support that includes individual deliveries and a comprehensive control program to assist clients with cost analysis.

Proud to be associated with BART's innovative transportation system, several Boss Group Companies have worked to develop BART's unique career apparel.

**Christensen & Foster**, a Santa Rosa general building contracting firm, is proud to have played a part in the construction of the world's most modern transit system.

In 14 years of incorporation, Christensen & Foster has successfully completed more than 700 individual contracts over the width and breadth of Northern California for all manner of clients, including private corporations, public utilities, city, county, state and federal government jurisdictions, and all branches of the armed forces.

Completed and presently active BART contracts include station finishes at the MacArthur, Berkeley and Civic Center

**Peter Kiewit Sons' Co.** has performed virtually all types of construction in its 88-year history.

Following extensive defense construction during World War II, the company resumed its operation in building and highway work, and also expanded the nature of its heavy engineering construction to include marine, mining and tunneling operations.

Headquartered in Omaha, Nebraska, it is now one of the nation's larger construction organizations with district and area offices located coast to coast (including Alaska) and

**Homer J. Olsen, Inc.** has constructed West Coast projects from Southern California to the State of Washington with expertise in the management and engineered construction of unusual and complicated jobs. These include airports, highways, bridges, environmental protection projects and portions of the Bay Area Rapid Transit system.

The Olsen organization has been involved, either singly or in joint venture with other heavy construction contrac-

**Sundberg-Ferar**, industrial designers of Southfield, Michigan, was responsible for two of the most significant design elements of the BART system—the BART car and BART logo symbol.

Sundberg-Ferar's car design achieves the prime objective of providing the transit passenger with luxurious, comfortable surroundings and its logo design is a strong symbol which will immediately identify station locations, trains and

The Commercial Uniform Division of Los Angeles has created all the BART apparel; the Boss Rental Service Division of San Leandro will provide BART with a complete uniform leasing program.

Designed for quality and comfort, the distinctive BART uniforms will speak "pride and performance" for the men and women who wear them.

Stations, platform finishes at 16 stations on the East Bay Lines, and construction of San Francisco's Hallidie Plaza.

It is Christensen & Foster's policy to undertake quality construction in a timely and efficient manner through the media of aggressive management and the melding of their own personnel with that of subcontractors' and materials suppliers'.

Christensen & Foster looks forward to many more years of aggressive and satisfying endeavor in the building construction field in Northern California.

from Vancouver, British Columbia to Montreal, Canada.

Its work on BART has included heading the joint venture construction of the transbay tube, twin compressed air tunnels beneath San Francisco's Mission Street, the twin-tunnel Diamond Street subway, and the Glen Park, Van Ness and Civic Center Stations. Its Castcon Division has manufactured and/or installed approximately 25 miles of pre-cast, pre-stressed concrete double track girders for the aerial portion of the BART system.

Its work on BART has included heading the joint venture construction of the transbay tube, twin compressed air tunnels beneath San Francisco's Mission Street, the twin-tunnel Diamond Street subway, and the Glen Park, Van Ness and Civic Center Stations. Its Castcon Division has manufactured and/or installed approximately 25 miles of pre-cast, pre-stressed concrete double track girders for the aerial portion of the BART system.

It has been an honor to be part of such a significant project.

all BART literature. Both have become trend setters and goals for other transit agencies to strive for.

Since completion of the BART design, Sundberg-Ferar has designed and built prototypes of fifteen transit vehicles for other major cities in the country including New York, Long Island, Washington, D.C., Chicago, Baltimore, Las Vegas and the Boeing State-of-the-Art Car for the United States Department of Transportation.

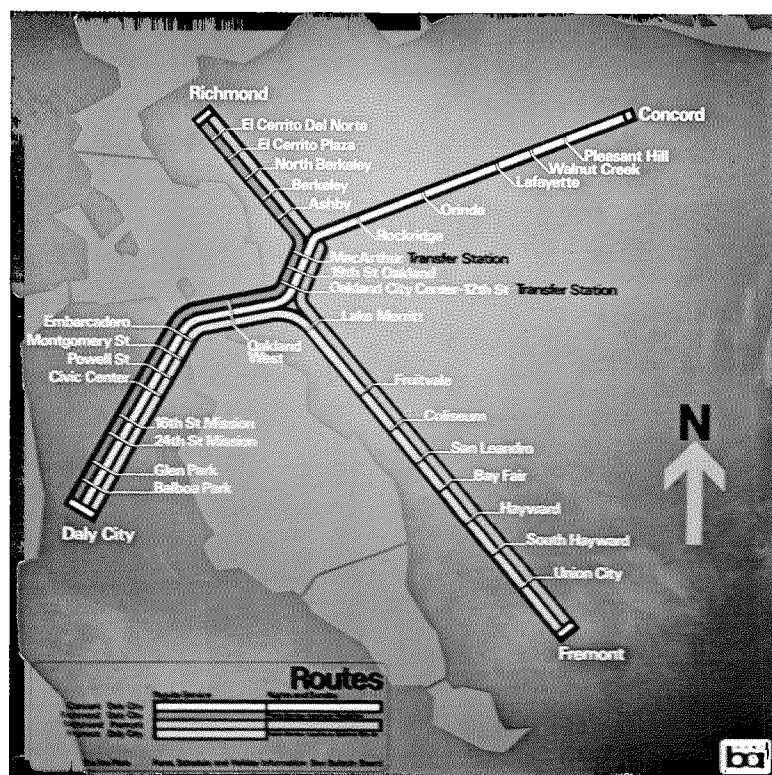
# How to make sure you get on the right train.

As you can see from this station route map there are four BART routes with four destination cities: Richmond, Concord, Fremont and Daly City. Every BART train heads for one of these end-of-route destinations. Look up the station you are going to on the route map (there are several at every station) and remember on which of these routes it's located.

Just check for the right destination on the sign over the stairways or escalators leading to the station platforms. There are electronic signs along the platforms too, which indicate which of the four routes is being served, so it is pretty difficult to go out of your way. But should you find yourself at the wrong destination, one of

BART's Station Agents will be happy to put you back on the right track.

At this time there is weekday service only (6 a.m. to 8 p.m.) from Fremont to MacArthur station. When BART's full 75-mile system is completed, the following schedule will be in operation: during daytime hours, Monday through Saturday, there will be direct service on all routes. Concord travelers going to Richmond or Fremont have to change trains at MacArthur or Oakland City Center-12th Street. At night (after 10 p.m.) and on Sundays, passengers traveling between San Francisco and destinations on the Richmond or Fremont routes will also have to change trains. All transfers are made in the East Bay, at either MacArthur or Oakland City Center-12th Street. The precise times of first trains in the morning and last trains at night will vary slightly according to station, but when everything is running as planned, service will start at 5 a.m. and end at 1 a.m.



# What the ride will cost and how long it will take.

**TIME** (Example: Oakland City Center - 12th St. to Hayward - 18 minutes.)

**FARE** (Example: Oakland City Center - 12th St. to Hayward - 60¢.)

Route	Concord	Pleasant Hill	Walnut Creek	Lafayette	Orinda	Rockridge	Richmond	El Cerrito Del Norte	El Cerrito Plaza	North Berkeley	Berkeley	Ashby	Fremont	Union City	South Hayward	Hayward	Bayfair	San Leandro	Coliseum	Fruitvale	Lake Merritt	MacArthur	18th St Mission	Oakland City Center - 12th St.	Oakland West	Daly City	Balboa Park	Glen Park	24th St Mission	18th St Mission	Civic Center	Powell	Montgomery	Embarcadero				
Concord	30																																					
Pleasant Hill	30	30																																				
Walnut Creek	30	30	30																																			
Lafayette	30	30	30	30																																		
Orinda	30	30	30	30	30																																	
Rockridge	30	30	30	30	30	30																																
Richmond	30	30	30	30	30	30	30																															
El Cerrito Del Norte	30	30	30	30	30	30	30	30																														
El Cerrito Plaza	30	30	30	30	30	30	30	30	30																													
North Berkeley	30	30	30	30	30	30	30	30	30	30																												
Berkeley	30	30	30	30	30	30	30	30	30	30	30																											
Ashby	30	30	30	30	30	30	30	30	30	30	30	30																										
Fremont	30	30	30	30	30	30	30	30	30	30	30	30	30																									
Union City	30	30	30	30	30	30	30	30	30	30	30	30	30	30																								
South Hayward	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30																							
Hayward	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30																						
Bayfair	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30																					
San Leandro	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30																				
Coliseum	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30																			
Fruitvale	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30																		
Lake Merritt	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30																	
MacArthur	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30																
18th St Mission	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30															
Oakland City Center - 12th St.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30														
Oakland West	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30													
Daly City	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30												
Balboa Park	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30											
Glen Park	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30										
24th St Mission	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30									
18th St Mission	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30								
Civic Center	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30								
Powell	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30							
Montgomery	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30						
Embarcadero	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

**SPECIAL FARES**  
Children 12 and under and senior citizens 65 and over may ride BART at one-fourth the full fare on a special red ticket. These red tickets must be purchased at banks participating in BART's neighborhood ticket sales program and are not available from the regular vending machines in BART stations.

The cost of special red tickets is \$2.50 (good for \$10.00 worth of rides). BART's regular fare tickets may also be purchased at local banks in values of \$10 and \$20.

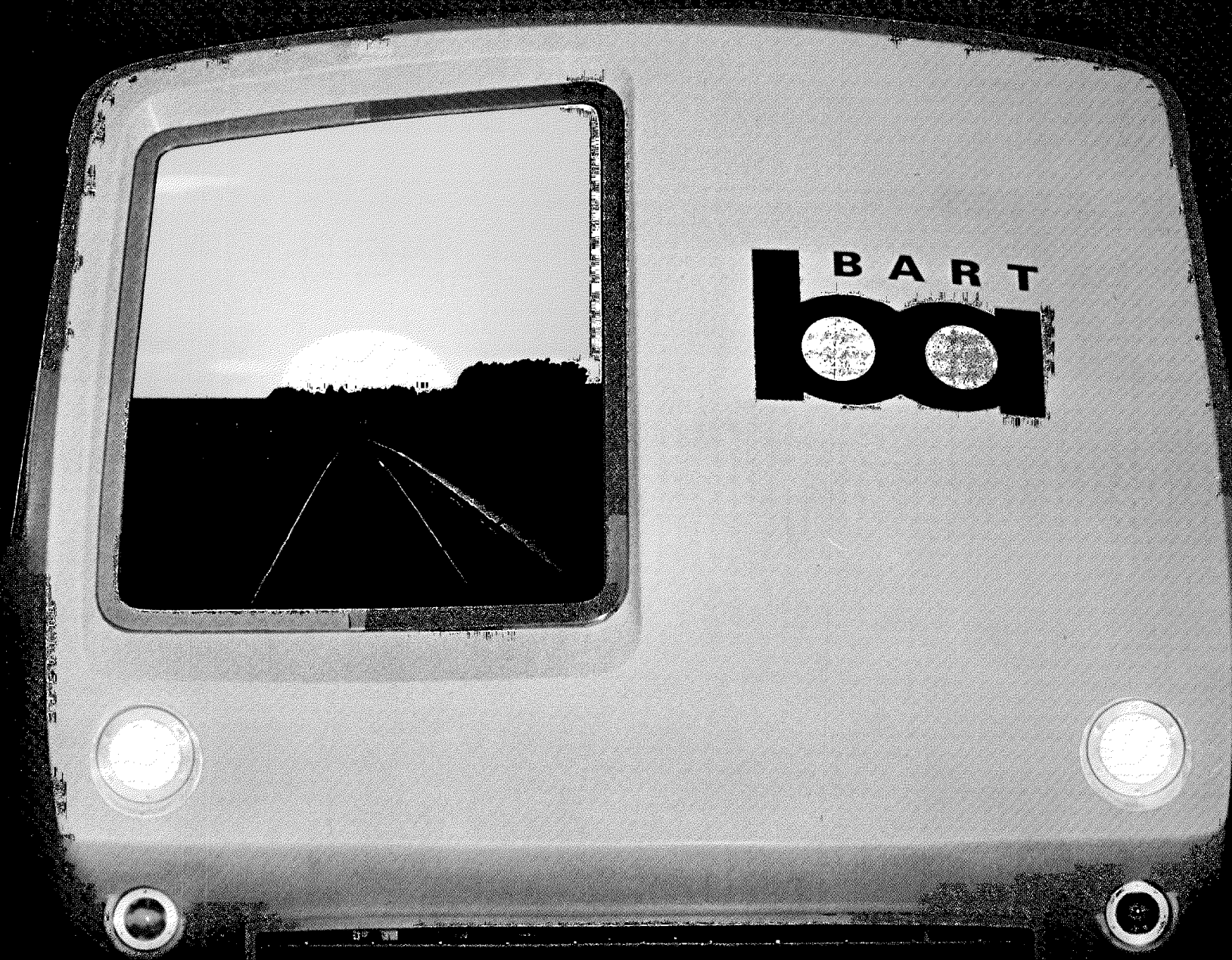
**BUS TRANSFER**  
BART passengers can pick up a free, one-zone bus transfer upon leaving East Bay stations served by AC Transit.

This transfer is dispensed from the white bus transfer machine located in each station's paid area.

**ROUND TRIP RIDES**  
You can take rides of up to 3 hours on BART for 60¢, regardless of the distance you travel. But you must begin and end your trip at the same station.

**A  
bright  
new day  
for the  
Bay Area**

# BART



**A bright new day for the Bay Area**

**Published by Bay Area Rapid Transit District, 800 Madison, Oakland 94607**

An advertising supplement to: San Francisco Examiner & Chronicle, Oakland Tribune, Alameda Times Star, Hayward Daily Review, Fremont-Newark Argus, Livermore Herald News, Concord Transcript, Contra Costa Times, Richmond Independent, Berkeley Daily Gazette.

# We finally made it... Thanks for waiting!

It's been a long time coming, but now BART's off-and-running. It's running because the taxpayers of San Francisco, Alameda and Contra Costa Counties had the foresight to approve a \$792 million bond issue in 1962. It's running because of the individual city and county staff members who worked so hard to make it happen. And it's running because of the city and county, state and federal leaders who helped us overcome so many unforeseen hurdles. All deserve a sincere "thank you".

## Birth and Growth

The last ten years have been a period of well-publicized hurdles and highlights. But BART really began back in 1951 with the formation of the nine county San Francisco Bay Area Rapid Transit Commission. The commission was assigned the task of making a comprehensive study of the Bay Area's transit needs. Parsons-Brinckerhoff—the "PB" of PBTB, our consulting engineers—made the feasibility study. Its recommendations resulted in the state legislature's creation of a five-county rapid transit "District." The District's job was to develop a workable plan for a high speed, rapid transit system and, upon voter approval, construct and operate it. Nicknamed "BART," it burst upon the scene in 1957, full of enthusiasm — and a staff of eleven.

The first order of business was to tell the public what we were planning and what progress we were making. Some of the early hands made as many as five speeches a night to any homeowner's group or service club that would listen. One information officer traveled from San Francisco to Half Moon Bay, and gave his presentation solely to the janitor who opened the school auditorium.



by B. R. Stokes,  
General Manager

## From Five Counties to Three

In the Spring of 1962, Marin and San Mateo Counties withdrew from the proposed district. But Alameda, San Francisco, and finally, Contra Costa stood firm. The measure was placed on the November 6 ballot. We needed 60 percent approval of a measure that asked the voters to build and operate a three-county, 75-mile rapid transit system, and to tax themselves to the tune of \$792 million. On November 7 late returns pushed the "yes" vote over the 60 percent mark. The final margin was 61.2 percent, a paper-thin edge, but then no other local public works project of this magnitude had ever made it on the first ballot.

The ballots had hardly cooled before a taxpayers' suit was filed challenging the legality of the District and its contract with the joint venture engineering firms. Although the District won its case, it was a bittersweet victory for BART: the lengthy trial caused a six-month delay.

In June of 1964, President Lyndon Johnson arrived in Concord with a flotilla of helicopters, blowing dust over some 30,000 people gathered at the site of the Diablo Test Track. The President touched

The Fall of 1965 was not a very bright one for BART. Only two bids came in for the downtown Oakland subway construction. The lowest was \$14 million *over* our engineers' estimates. So PBTB divided the contract into smaller packages, got more bidders, and eventually brought the project within budget. But this cost us almost a year in construction time.

## Money Headaches

BART's reserves were being eroded by an annual inflation rate of close to 7 percent. Several communities asked for changes in the basic plan, so we relocated 15 of our 34 stations and improved their architecture and landscaping. All to the good of the system, but hard on the treasury.

In August 1966 we received our first Federal construction grant. This eventually amounted to nearly \$200 million in Federal aid for everything from landscaping and car purchases to technical studies on extending the network. Construction on both the Oakland and San Francisco subways began at the end of 1967, and in 1968 BART received a \$28 million grant from the U.S. Department of Transportation to help develop and buy its trains.

## The Siege of Sacramento

While all this was going on, our directors and staff beat a path to Sacramento. They urged legislative relief to make up a fund deficit pegged at \$150 million. Construction had taken almost \$700 million and we faced the prospect of giving the Bay Area the world's first ghost system, rather than the rebirth of mass transportation.

Finally, on April 8, 1969, Governor Reagan signed a law temporarily increasing the sales tax in the three BART counties

from 5 to 5½%. It was a banner day for BART. Two days later the final section of the trans-bay tube was lowered into place. And, in July, we awarded a \$67 million contract for 250 streamlined cars.

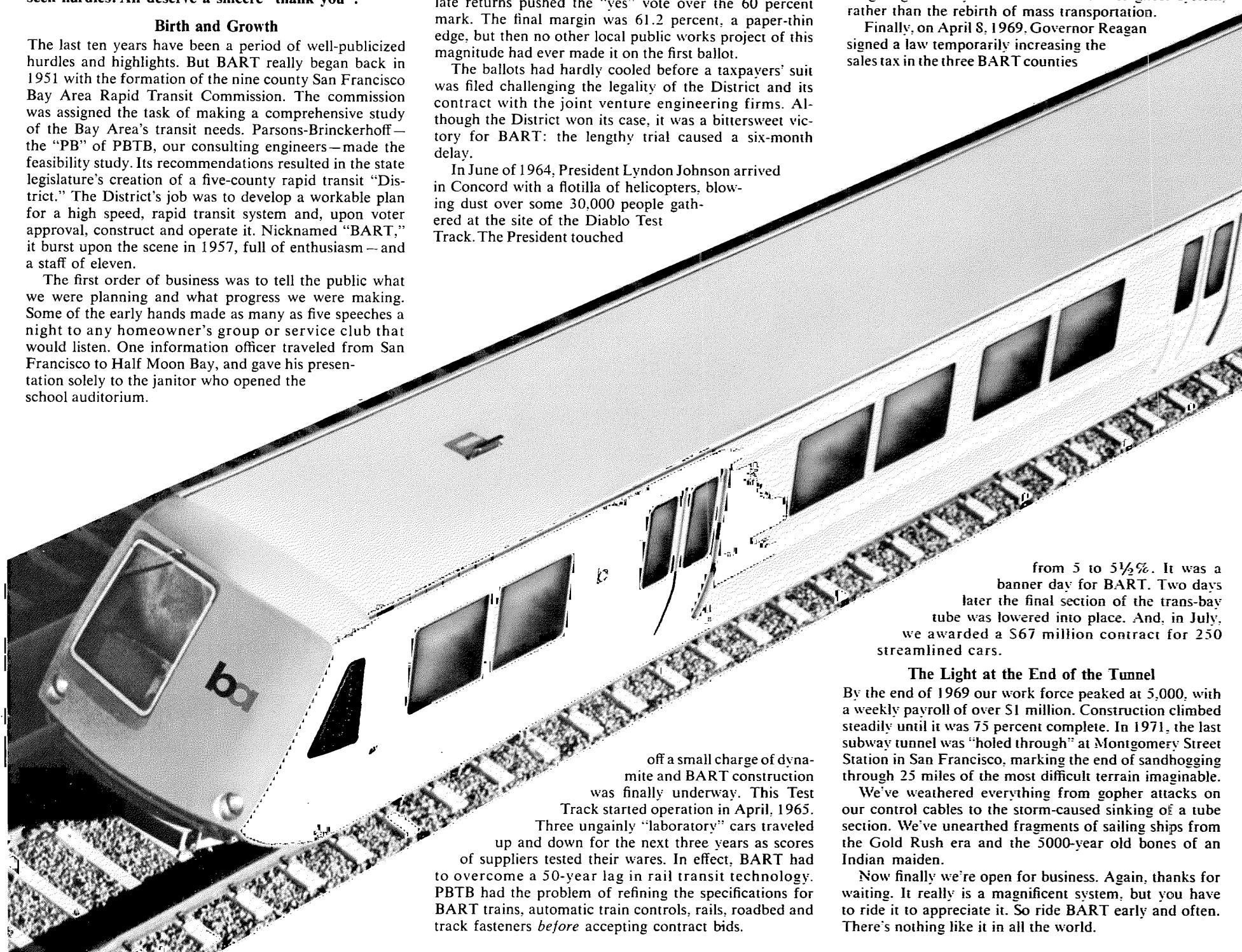
## The Light at the End of the Tunnel

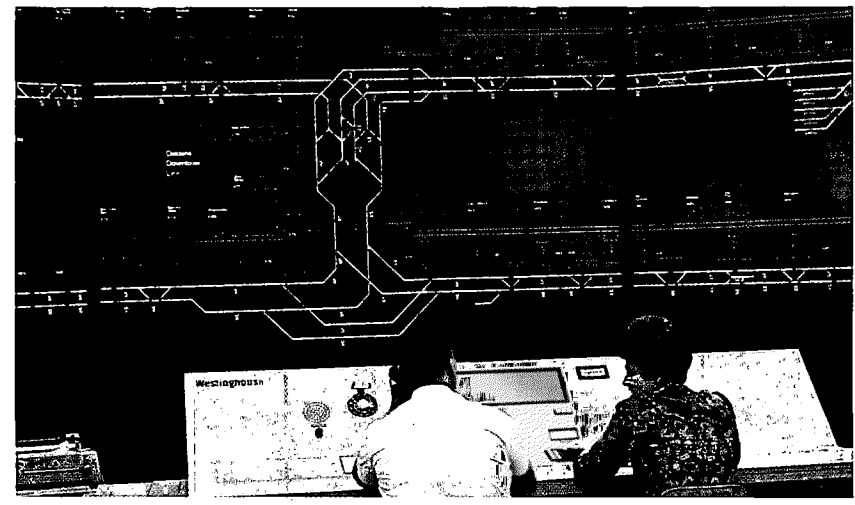
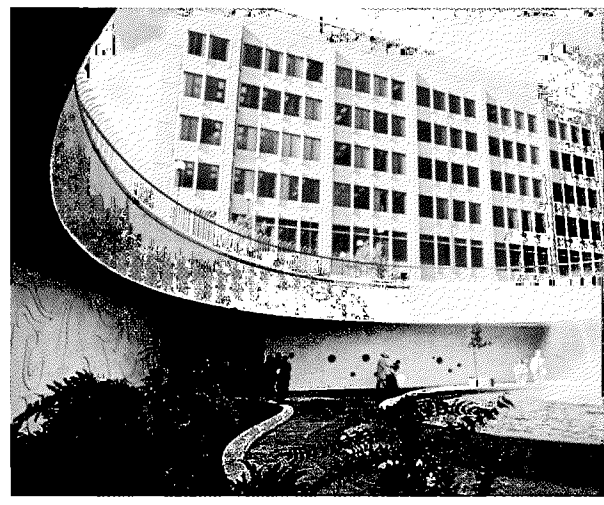
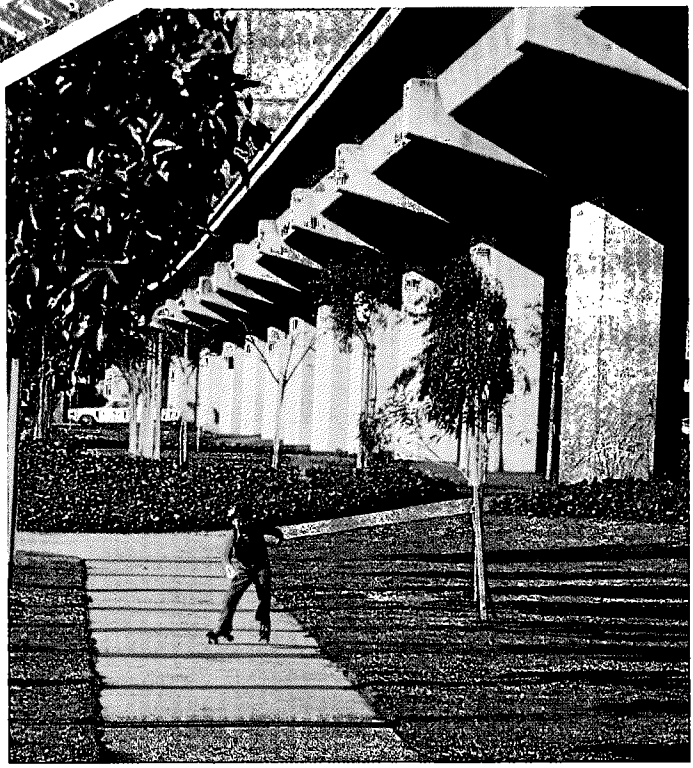
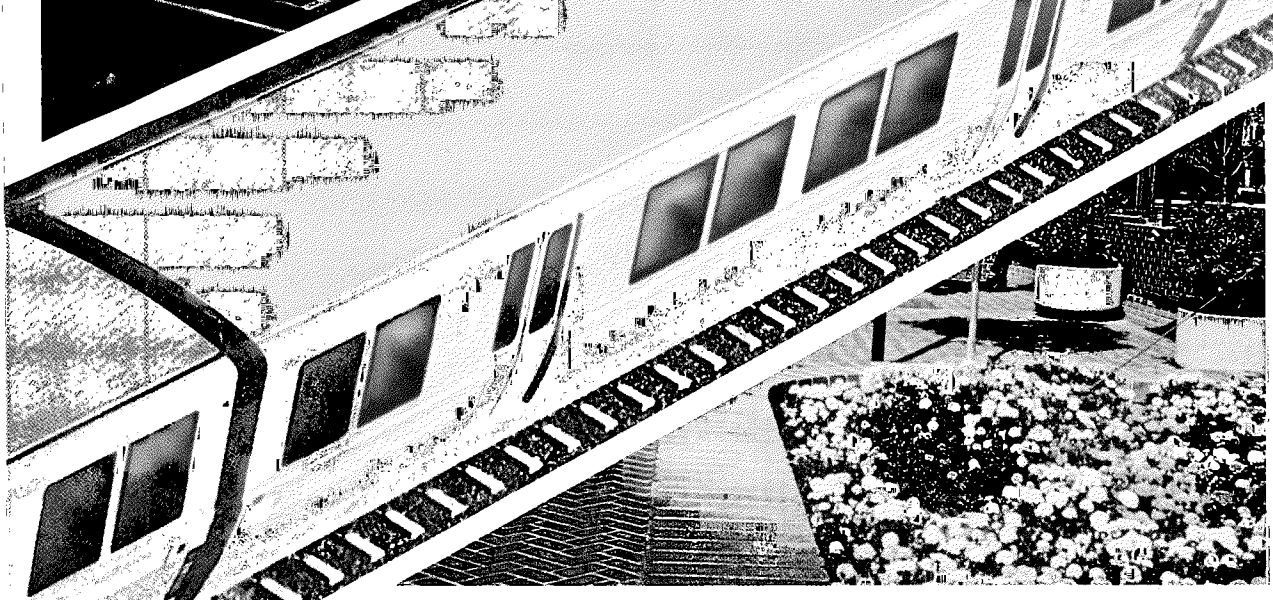
By the end of 1969 our work force peaked at 5,000, with a weekly payroll of over \$1 million. Construction climbed steadily until it was 75 percent complete. In 1971, the last subway tunnel was "holed through" at Montgomery Street Station in San Francisco, marking the end of sandhogging through 25 miles of the most difficult terrain imaginable.

We've weathered everything from gopher attacks on our control cables to the storm-caused sinking of a tube section. We've unearthed fragments of sailing ships from the Gold Rush era and the 5000-year old bones of an Indian maiden.

Now finally we're open for business. Again, thanks for waiting. It really is a magnificent system, but you have to ride it to appreciate it. So ride BART early and often. There's nothing like it in all the world.

off a small charge of dynamite and BART construction was finally underway. This Test Track started operation in April, 1965. Three ungainly "laboratory" cars traveled up and down for the next three years as scores of suppliers tested their wares. In effect, BART had to overcome a 50-year lag in rail transit technology. PBTB had the problem of refining the specifications for BART trains, automatic train controls, rails, roadbed and track fasteners *before* accepting contract bids.





# “The only thing missing is the clickety-clack”

Engineers, planners, architects and financial experts have invested hundreds of thousands of man-hours and 1.4 billion dollars making BART a reality. But, as far as the Bay Area commuter is concerned, all that is so much water over the dam. What they—and everyone else wants to know is “What’s it like to ride BART?” The only real way to find out, of course, is to buy a ticket and see for yourself. But, since BART is now running on only one of its legs, many people have not yet had the opportunity. So here—in words and pictures—is what to expect:

First, we have tried to make our cars every bit as comfortable as yours. You’ll find wall-to-wall carpet underfoot, extra wide foam padded seats and tinted picture windows that take up almost the whole side of the car. There’s year-round air-conditioning and heating too, and special recessed ceiling lights that ‘focus’ on your newspaper—not on your eyes.

Each car comfortably seats 72 people, with a generous aisle down the center. There are no overhead straps or luggage racks (there’s room for packages beneath each seat) and advertising posters are confined to the areas beside the doors and at the end of each car. You can follow your progress or see where a transfer of trains is necessary on any of the car’s four large route maps.

## What about the ride?

It’s smooth, relatively silent and very fast... top speed 80 mph, 42 mph average *including stops!* But missing, along with the clickety-clack, is the swaying and jiggling you expect on fast-moving trains. BART’s engineers developed their own version of a ‘wide track’ stance to stand up to Bay Area westerlies. Rails are spaced 9½” wider than the world-wide standard 4’8½”. And, to see that the satiny ride is maintained, BART’s entire 75 miles of track can be adjusted in ⅛” increments whenever the slightest wobble is detected.

To make sure the trains run on time, their stops, starts and speed are controlled from BART’s computer center, but every train will have a Train Attendant who can take over manual control should it become necessary. Passengers can communicate with him through an intercom system located at the end of each car.

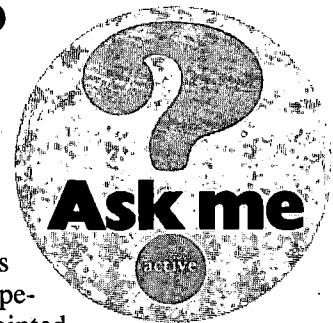
But, the most satisfying part of a BART ride, people tell us, is whisking along next to a bumper-to-bumper Nimitz at 80 miles an hour.

And that, after all, is what BART is all about.





## Got a question?



If you're in a BART station and you want to know which bus goes where—or what time the last train leaves for Fremont—or anything else you think we can help you with, just ask anybody wearing this button. These BART people have been specially trained to help the public get acquainted with the system as smoothly as possible.

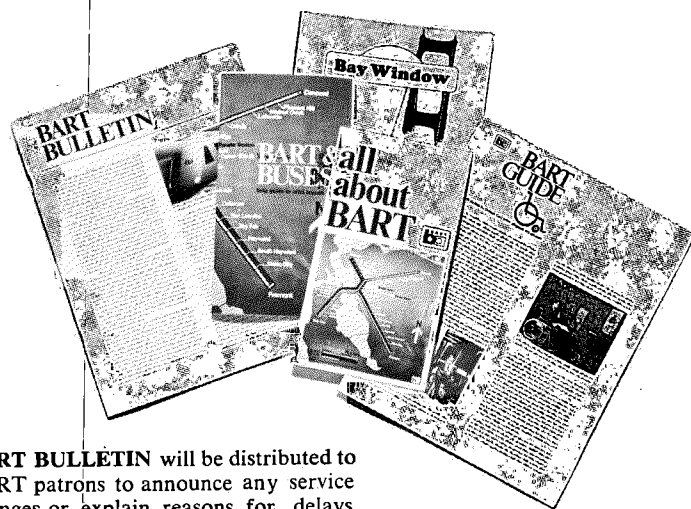
If you are *not* at a station you can get the same kind of help by dialing your area's three number prefix and the four letters B-A-R-T:

Oakland & Berkeley 465-BART Richmond & El Cerrito 236-BART  
 Fremont & Union City 793-BART San Francisco 788-BART  
 Hayward & San Leandro 783-BART & Daly City 933-BART  
 Walnut Creek, Pleasant Hill & Concord

BART's information center operates daily. There are bilingual Spanish and Chinese speaking operators on duty from 8 to 5.

So if you want to get from here to there in the Bay Area and are not sure how to go about it, just ask. We're happy to help.

## BART PUBLICATIONS



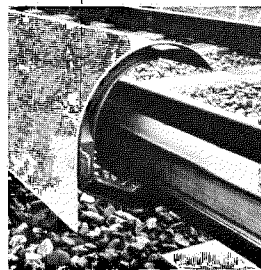
**BART BULLETIN** will be distributed to BART patrons to announce any service changes or explain reasons for delays or other problems.

**BAY WINDOW.** A monthly newsletter for passengers about activities, destinations and events of interest in the Bay Area and how to use BART to enjoy them. To be distributed free in stations.

**BART & BUSES.** A comprehensive map guide to transit travel in the Bay Area. Details coordination of BART routes and bus service; includes schedules of both AC Transit and San Francisco Muni.

**ALL ABOUT BART.** A small folding pamphlet answering most questions about how to use BART. Available in English, Spanish and Chinese editions through BART stations, banks participating in ticket sales, chambers of commerce, hotels, bus depots and the like.

**BART GUIDE.** English and Braille, with information on BART's installations and procedures to aid the handicapped.



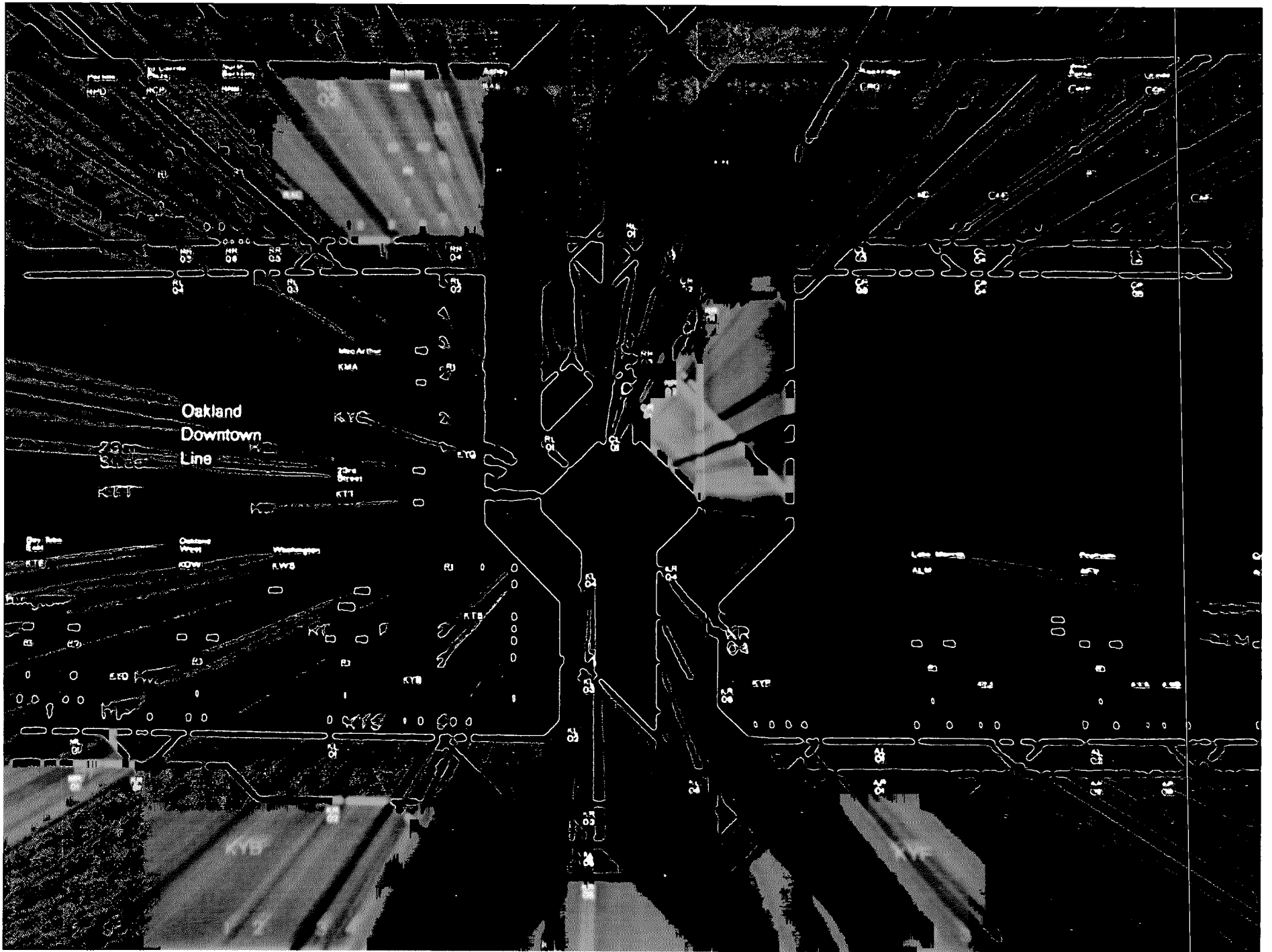
## The 3rd Rail

### A word of caution

BART trains run on two rails, with another rail alongside which carries the electric power. This 3rd rail packs 1,000 volts—enough to drive a 700 foot train at 80 mph!

As you've probably noticed, all BART's surface routes are fenced off from the public. For added safety the 3rd rail is partially covered with a protective shield. But you can help make the system even safer by telling your children to stay well away from BART tracks at all times. The 3rd rail doesn't *look* dangerous but it can inflict serious or fatal injury to anyone who touches it.





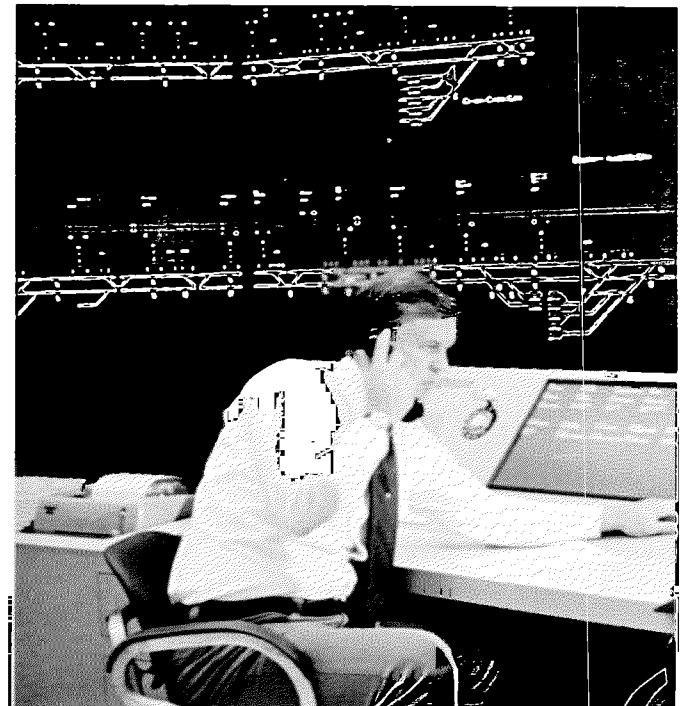
# The Computer and the Commuter

There's one BART first you'll appreciate but probably never see. That's the world's first computer-supervised train control system. Rather than having a lot of trains running on individual schedules, this gets all the BART cars working together. The computer and central supervision constantly adjusts the schedule of each train to maintain an even, efficient spacing.

The system includes a central control complex in BART's Lake Merritt Administration Building, with local control units in the stations, train yards and on the trains themselves, as well as communication links tying them all together. The local units control all the functions relating to safety, such as protective train spacing, speed limitation and locating switches to prevent misroutings.

A giant central computer coordinates the whole system. It cannot override the safety functions of local systems, but can override other decisions, such as the time a train spends in a station, in order to keep everything running at peak efficiency.

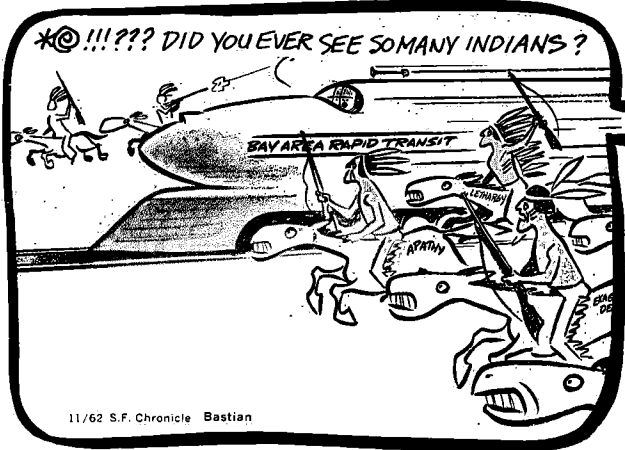
Under this system, train acceleration and braking is smooth, safe and completely automatic. The computer determines departure times from yards and stations, and keeps an eye on routings. It requests train speed adjustments and makes other corrections to maintain the best possible service. In all these ways, our computer helps the commuter. By monitoring and supervising the whole network, it cuts operating costs and keeps trains running on an accurate schedule. You might say our computer has helped to bring back good old-fashioned personal service.



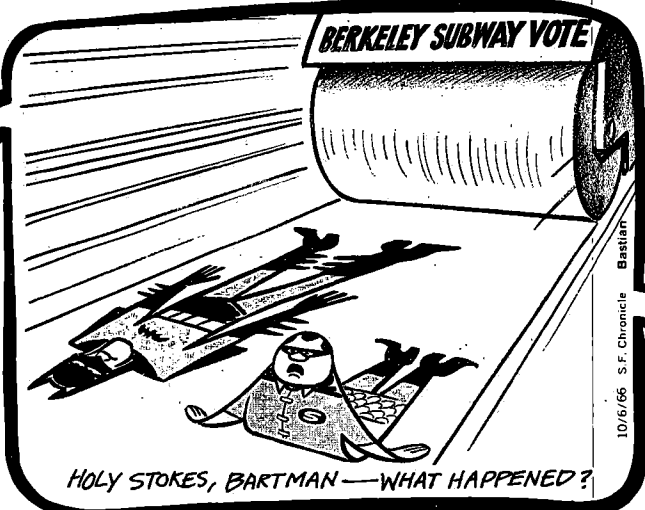
# BART THROUGH THE AGES

**CRACK!**

... AS SEEN BY BAY AREA CARTOONISTS



Slings and arrows were in goodly supply in November 1962, as supporters and detractors of BART battled down to the wire on the Rapid Transit bond issue. The righteous prevailed, with passage of the bond issue by a paper thin 61.2%.



Berkeley dwellers participated in a vote of their own in 1966, and by a whopping 75% agreed to spend upwards of \$20 million to bury another 3 miles of BART line and two stations. At that time, such additional design and construction loomed as an 18-month delay, a steam-roller, indeed.



"Santa Claus is coming to town" San Francisco's Market Street appeared somewhat shell-pocked at Christmas, 1967, at the height of BART subway excavation. Some people must have made it through the barriers and over the boardwalks, however; merchants recorded a 6% increase in sales over the preceding year.



Miniskirts may have been the style in 1967, but thoughts of a mini-BART brought no admiring glances from BART's Board of Directors. Despite the spectre of a \$150 million deficit, the Board rejected trimming the 75-mile system, and agreed not to commence service until all was built as promised in 1962.

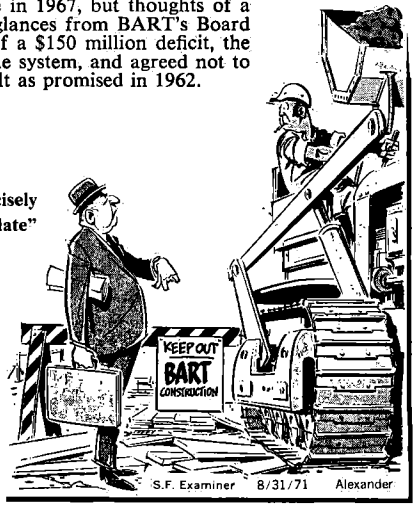


The tattered figure shown above was a familiar sight in Sacramento in 1968—and in 1967 and 1969—as BART struggled to get financial relief. Construction had slowed due to lack of funds, and the night-marish vision of a \$700 million monument to futility was very much with BART.

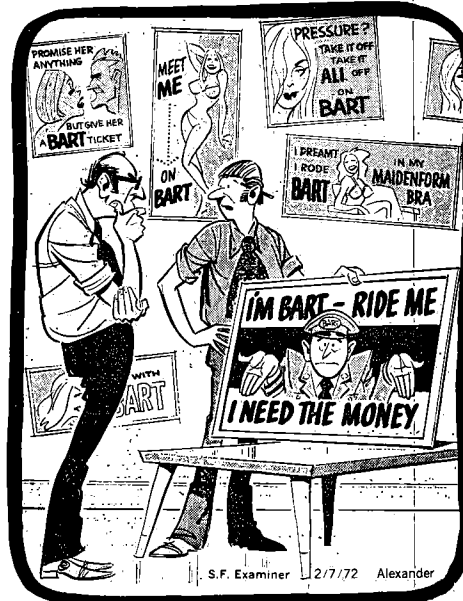


"At last" No mirage this time, cooling fiscal waters poured into the parched BART reservoirs in the form of a half-cent increase in the sales tax of Alameda, Contra Costa and San Francisco Counties. Governor Ronald Reagan signed the measure into law on April 8, 1969, providing BART with the \$150 million needed to complete the project.

"Sir, the 7:37 is precisely three years and six days late"

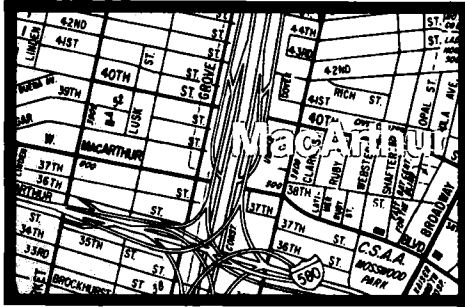


Fund shortages, lawsuits, changes in design, scope and physical amenities of the project—did indeed extend the construction phase of BART, as this Montgomery streeter so frostily points out in 1971. His patience would wear even thinner through the following year, but the end result may tend to thaw him.



BART's obligation to pay its operating costs from the fare box, with no taxing power to share the brunt of such cost, is a departure from the usual public transit practice. Consequently, an aggressive campaign was launched to lufe the traveler out of his car and onto BART's. Beguiling maidens touting rapid transit's message may not be the answer, but the cartoon's "I need the money" approach is right on the money.

# BART's thirty-four stations



**MACARTHUR** 40th St. between Grove St. and Telegraph Ave.  
 • Free parking for 487 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: "C," 57, 15, 40, 41, 43, 14, 17.

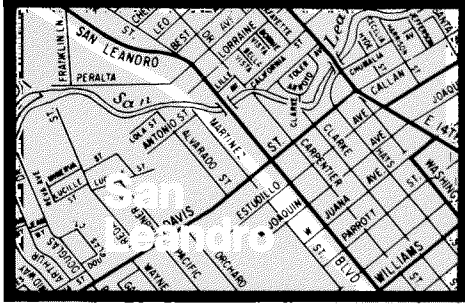


**12TH ST.** Broadway between 11th and 14th Sts.  
 • No parking; no bike racks.  
 • Served by the following AC Transit buses: "A," "T," 11, 12, 14, 15, 18, 31, 32, 33, 34, 36, 38, 40-43, 51/58, 59/76, 72/73, 80, 81, 81A, 82, 83, 88.

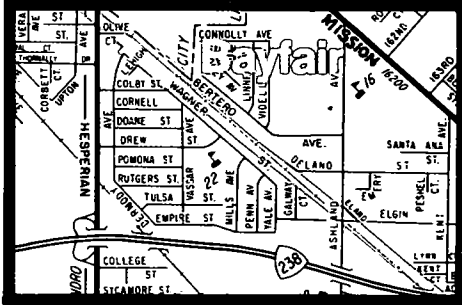


**19TH ST.** Broadway between 18th and 20th Sts.  
 • No parking; no bike racks.  
 • Served by the following AC Transit buses: 11, 12, 18, 31/34, 36, 38, 40, 41, 43, 51/58, 59/76.

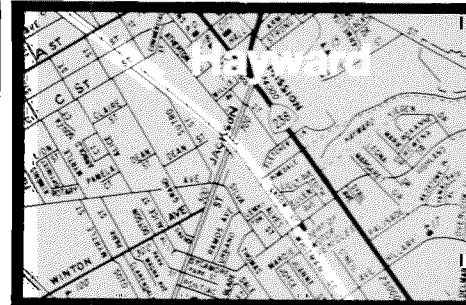
**LAKE/MERRITT** Oakland St. between 18th and 20th Sts., level 10 ft. from Hwy. 17.  
 • BART headquarters and Computer Control Center; close to Laney College and Oakland Museum.  
 • 25¢ parking for 110 automobiles; 40 bike racks available.  
 • Served by the following AC Transit buses: 14, 32, 33, 35.



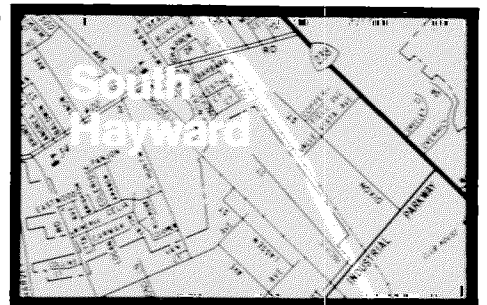
**SAN LEANDRO** San Leandro Blvd. between Davis and Parrott Sts.  
 • Free parking for 923 automobiles; 31 bike racks available.  
 • Served by the following AC Transit buses: N, 55, 60, 66, 81, 81B, 82.



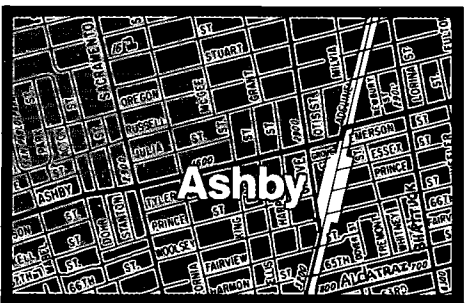
**BAY FAIR** Hesperian Blvd., adjacent to Bay Fair Shopping Center.  
 • Free parking for 1408 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 60, 62, 84, 93, 93A.



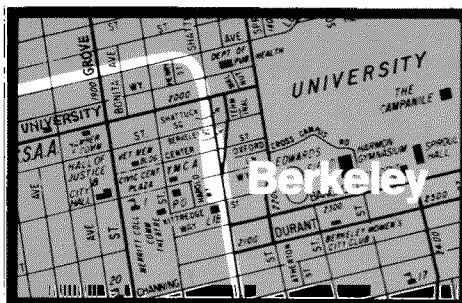
**HAYWARD** Montgomery St. between "B" and "C" Sts.  
 • Free parking for 696 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 60, 80, 81, 81A, 82, 90, 91, 91A, 92, 95.



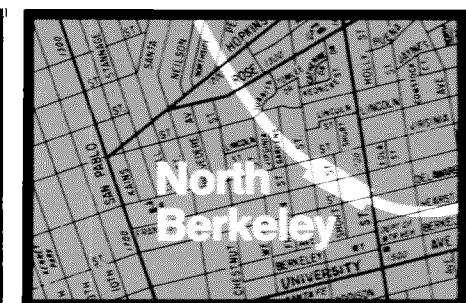
**SOUTH HAYWARD** Tennyson Rd. and East 12th St.  
 • Free parking for 507 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 82, 91.



**ASHBY** Adeline between Ashby Ave. and Woolsey St.  
 • Free parking for 560 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: "P," 15, 17, 65.



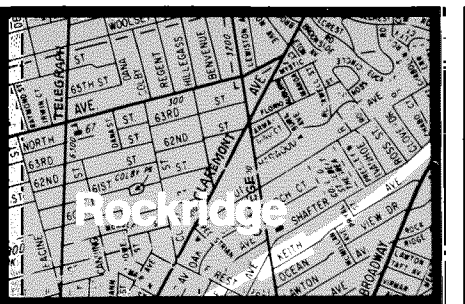
**BERKELEY** Shattuck two blocks south of University Ave. at Center St.  
 • No parking; no bike racks available.  
 • Served by the following AC Transit buses: "F," 7, 15, 40, 43, 43A, 51, 65, 67.



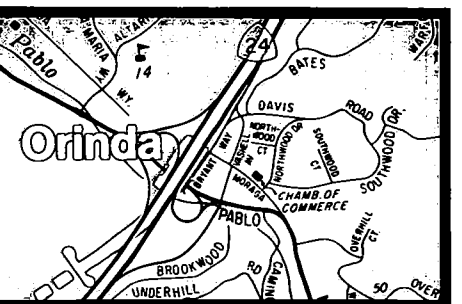
**NORTH BERKELEY** Sacramento and Delaware Sts.  
 • Free parking for 500 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 43, 43A, 51A, 65, 88.



**EL CERRITO PLAZA** Fairmount Ave. adjacent to El Cerrito Plaza Shopping Center.  
 • Free parking for 509 automobiles; 35 bike racks available.  
 • Served by the following AC Transit buses: 51A, 67, 68, 70, 72, 72B, 78.



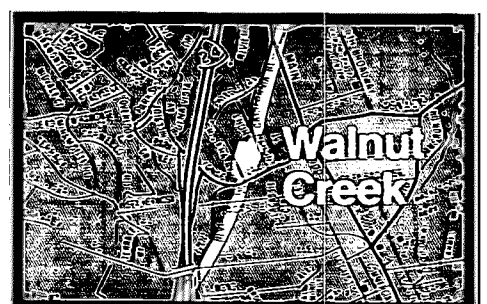
**ROCKRIDGE** College Ave. and the Grove-Shafter Fwy.  
 • Free parking for 776 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 17, 51.



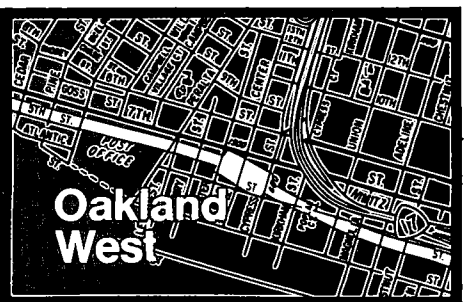
**ORINDA** Camino Pablo and Hwy. 24.  
 • Free parking for 939 automobiles; 18 bike racks available.



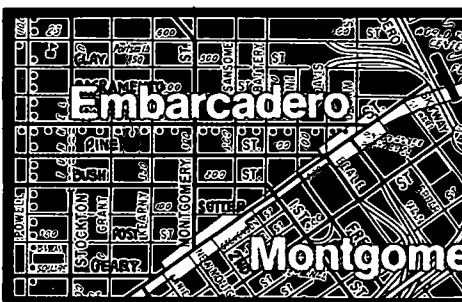
**LAFAYETTE** Deerhill Rd.; Hwy. 24 between Happy Valley and Oak Hill Rds.  
 • Free parking for 682 automobiles; 20 bike racks available.



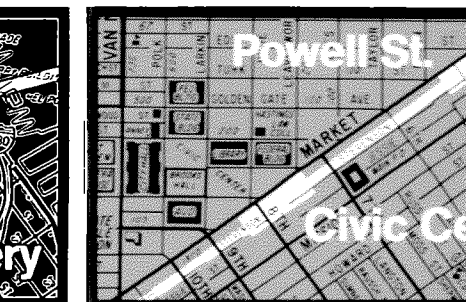
**WALNUT CREEK** Ygnacio Valley Rd. and Northern California Blvd.  
 • Free parking for 1114 automobiles; 18 bike racks available.



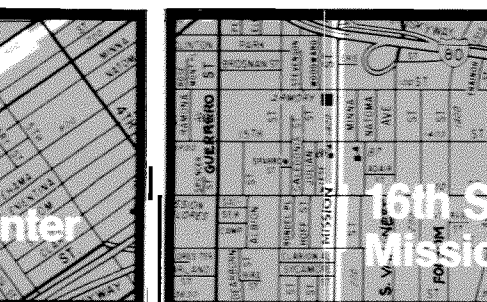
**OAKLAND WEST** Between 5th and 7th Sts., Center and Lewis Sts.  
 • Free parking for 391 automobiles; 20 bike racks available.  
 • AC bus service to be determined.



**EMBARCADERO** Market St. between Spear and Beale Sts. Two blocks from Ferry Building and Marin County Ferry.  
**MONTGOMERY ST.** Market St. between 2nd and New Montgomery Sts. Serves financial district.  
 • Muni bus service to be determined.  
 • No parking; no bike racks.

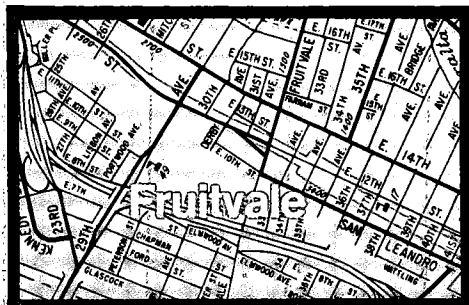


**POWELL ST.** Market between 4th and 5th Sts. Serves Union Sq., shopping and hotel district.  
**CIVIC CENTER** Market between 7th and 8th Sts. Serves City Hall, lower Market St.  
 • Muni bus service to be determined. Cable cars to Nob Hill and Fisherman's Wharf.  
 • No parking or bike racks available.

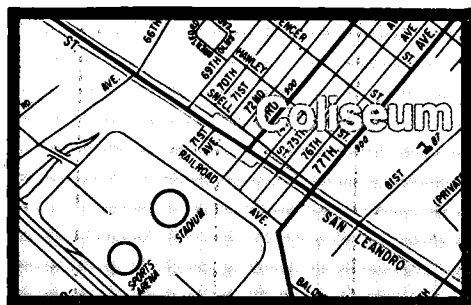


**16th St./MISSION** Mission and 16th Sts.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.

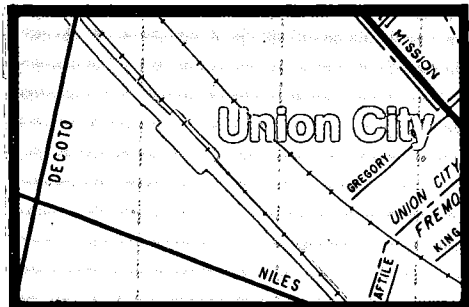
All you need to know about where they are, whether you can park, and which buses serve the station.



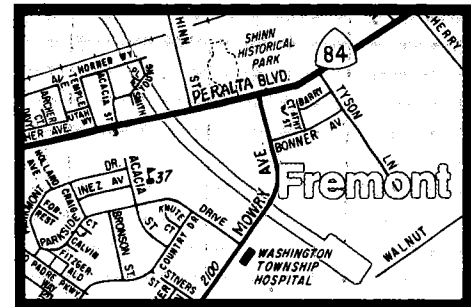
**FRUITVALE** 35th Ave. and East 12th St.  
 • Free parking for 730 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: 53, 54, 64, 79.



**COLISEUM** San Leandro St. between 70th and 73rd Aves.  
 • Free parking for 923 automobiles; 19 bike racks available.  
 • Served by the following AC Transit buses: 56, 57 (to airport).



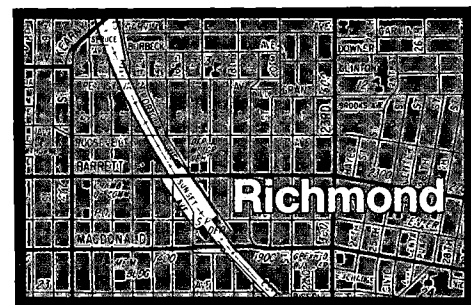
**UNION CITY** Decoto Rd. and Western Pacific R-O-W.  
 • Free parking for 485 automobiles; 18 bike racks available.



**FREMONT** Civic Center Pl.; 2 blks. southeast of Mowry Ave.  
 • Free parking for 700 automobiles; 21 bike racks available.



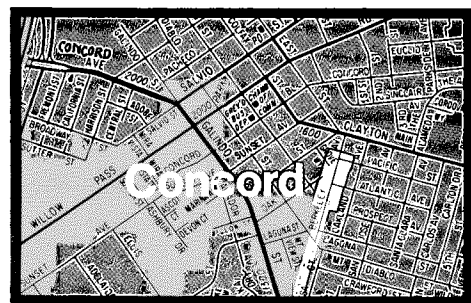
**EL CERRITO DEL NORTE** Cutting Blvd. and Hill St. 2 blks. from Hwy. 80, 1 blk. from San Pablo Ave.  
 • Free parking for 985 automobiles; 36 bike racks available.  
 • Served by the following AC Transit buses: 68, 70, 72B, 72C, 72M, 78.



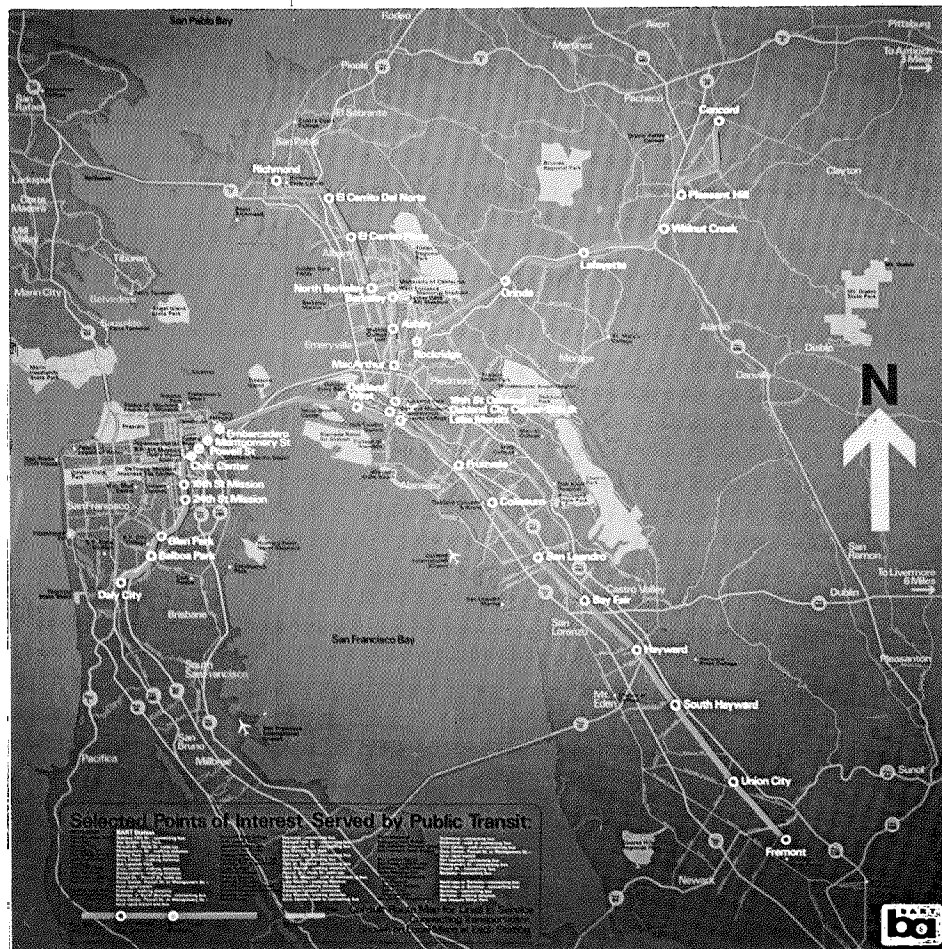
**RICHMOND** Nevin Ave.; between 16th, 18th Sts. and Macdonald Ave.  
 • Free parking for 783 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: 68, 69, 72, 78.



**PLEASANT HILL** Geary Rd. and Del Hombre Ln.  
 • Free parking for 1,337 automobiles; 20 bike racks available.

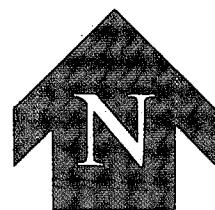


**CONCORD** Atlantic and Oakland Aves.  
 • Free parking for 1,059 automobiles; 20 bike racks available.

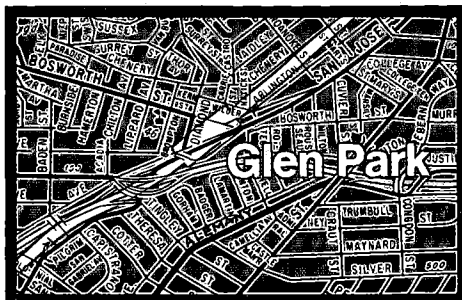


**REFERENCE MAPS**

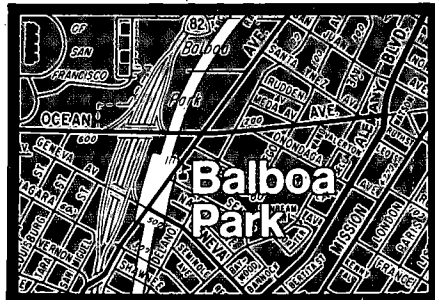
Each BART Station displays several of these large Points-of-Interest maps covering the entire Bay Area. The locations of over 40 of the more popular Bay Area attractions are shown in relation to the BART System. Also prominently displayed are large scale Local Area maps which cover the area around the station.



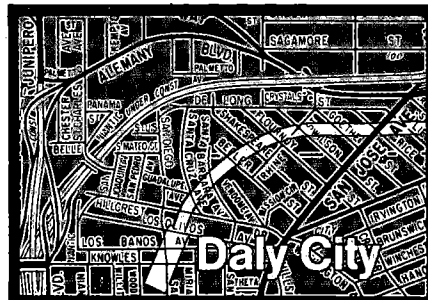
**24th ST. MISSION** Mission and 24th Sts.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



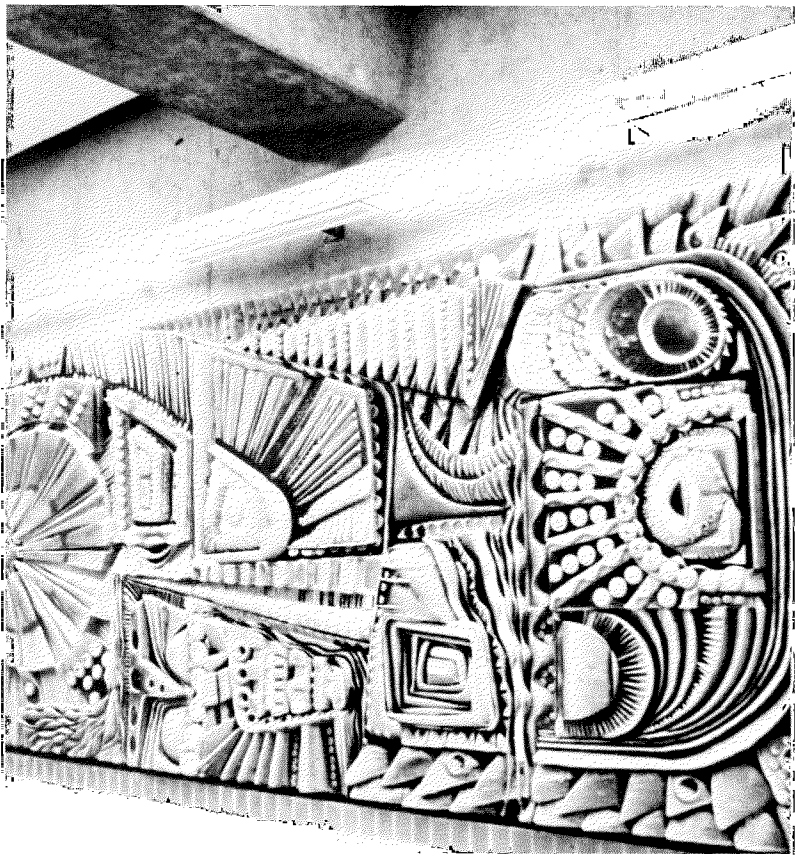
**GLEN PARK** Diamond and Bosworth Sts., near San Jose Ave.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



**BALBOA PARK** Geneva and Ocean Aves. at Tara St. One block from Balboa Park; direct access to Hwy. 280.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



**DALY CITY** Knowles Ave. between Niantic and San Diego Aves.  
 • Free parking for 785 automobiles; 20 bike racks available.



# Look what has

Subways or Rapid Transit have been around for a long time. London opened its first Underground stations in 1863. And New York's first stations on the old IRT line were opened to the public in the summer of '04.

Long years of service (and lack of funds) have taken their toll on what were once efficient, although perhaps austere, stations. As a result, many people have an image of the typical 'subway' station as an ugly place with dingy masses of concrete and narrow, drafty corridors.

But architecture has come a long way in the past hundred years. Today, public building has to be not only functional, but beautiful as well. And, as far as BART's planners were concerned, there was another very important aspect that had to be borne in mind. Each of

BART's 34 stations was, in effect, a Johnny-come-lately to the community. People had established a way of living they felt comfortable with and might, understandably, look upon the arrival of BART as an interruption to the accepted 'pattern' of their community. So BART's 14 subway and 20 aerial stations were specifically designed to fit in with their surroundings.

Variety and a healthy sense of competitiveness were achieved by appointing sixteen different architectural firms, eight landscape architects and several graphic designers and artists.

Wherever possible stations have been kept spacious and open to allow natural light to reach concourse and track levels. The result is a variety of skylights, glass walls, and



# happened to the 'subway' station.

sunken plazas. In Berkeley's Ashby Station, even the parking lot has been lowered so that the sun can light the mezzanine and platforms.

In downtown areas of Oakland and San Francisco, the stations are simple, efficient, and businesslike, brightened by large areas of color. In contrast, stations like North Berkeley, with its domed roof and skylight, or El Cerrito Plaza, with its rich earth coloring, have a more relaxed, residential air.

From the brick plaza at Lake Merritt Station in Oakland, you can look down onto an airy fountain with pool and ferns. This garden-like area is surrounded by a concrete wall sculptured with birds and fish. Behind this 200 foot mural is BART's computer control center—the artist thoughtfully leaving peepholes so passers-by can see what makes the entire system tick.

In all, fifteen stations contain works of art specifically commissioned for them. MacArthur Station's mezzanine is brightened by colored mosaics. Two townscapes decorate Union City Station. In San Francisco, the Mission Street Stations are enhanced by giant concrete bas reliefs in an Aztec motif and brightly colored tile.

Historically, overhead stations and their tracks have often blighted the areas they pass

over. But BART's architects, with the help of a \$400,000 federal grant, found ways to actually improve these areas. Beneath 2.7 miles of track in Albany and El Cerrito, there are now 'linear parks'; green lawns, pine trees and flowering shrubs—even a shuffleboard court and a tot lot.

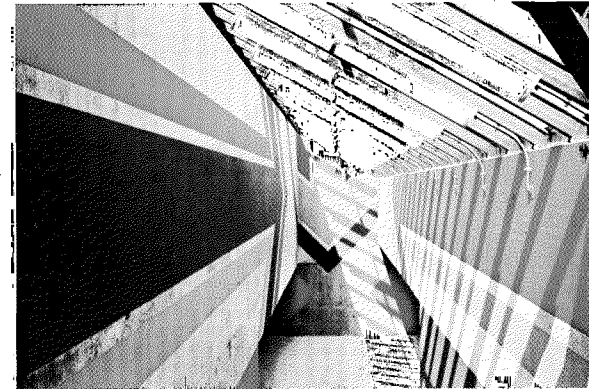
Of course, there's a lot more to BART stations than meets the eye. You can move from one level to another by stairs or escalator and, for the handicapped, there are special elevators set apart from the main rush of passengers. And, for your convenience, there are telephones, vending machines with candy, coffee, soft drinks and cigarettes. Also storage lockers and newspaper stands.

We have tried very hard to make BART stations a lot more than places to get on and off trains. We hope you agree the effort was worth it.

**TOP LEFT:** *Bas relief in Aztec motif at the Richmond Station.*

**LOWER LEFT:** *The plaza at Lake Merritt Station.*  
**RIGHT:** *Sunlight reaches below ground platforms at Berkeley Station.*

**BELOW LEFT:** *Mosaic mural at MacArthur Station.*  
**CENTER:** *Vaulted roofs at 16th-Mission Station.*  
**RIGHT:** *Super-graphics brighten Coliseum Station.*  
**LOWER RIGHT:** *Map display area and ticket machines at Lake Merritt.*



# Buying your first ticket.

To some people, BART's fare collection machinery seems a little complicated at first, but system testing with every kind of passenger—from young children to 80-year-old grandmothers—indicated all caught on pretty well the second time around.

For those who have not had a chance to ride BART...

*Here's your first time around:*

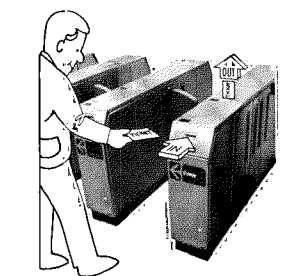
BART fares are graduated: the farther you travel, the more you pay. The procedure is entirely automated, employing a kind of "credit card" ticket that you use to enter and leave the system. You slip your ticket into the entry gate and the machine lets you into the station. As you pass through, the entry gate pops your ticket back to you. It's exactly the same when you leave a station.

That's all there is to the basic idea—but let's start from scratch and imagine you are buying your first BART ticket... As you enter the station you go to a ticket vending machine.

Start giving this machine your money and watch the changing total in the lighted "window" marked *ticket value*. The machine will take anything from a nickel to a five-dollar bill and issue tickets valued anywhere from 30¢ to \$20. The total tells you how much you've put into the machine. When you reach the value you want, press the *Issue New Ticket* button and a new ticket is issued with what you paid stamped right on it. This machine can even take an old ticket, "read" how much value is left on it and credit it towards a new one!

The change machine next to the ticket vender may prove useful if you want to buy a ticket in an exact amount.

Now, with your ticket in hand, go to the entrance gate and insert the ticket in the slot. In 8/10ths of a second, your ticket pops up. Lift it out, and the orange gate slides open. You're in!



You can also pass through the entry gate with coins. There is a coin slot which will take the minimum fare of 30¢. The entry gate issues tickets good for BART's minimum ride as you pass through. This ticket does not have "30 cents" stamped on it, but don't worry, BART's machines will know what it's worth.

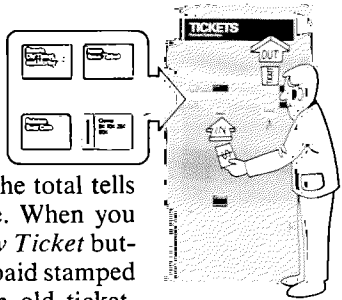
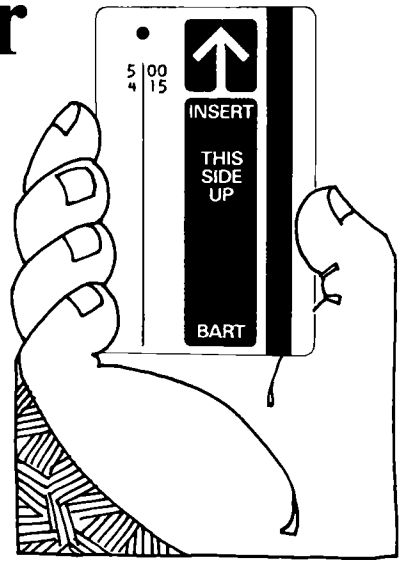
At the end of your ride the procedure is the same. You give the exit gate your ticket. Provided it has enough value on it to cover your trip, the machine will automatically deduct the correct fare and, if value remains on the ticket, return it to you as it opens the gate.

But let's say your ticket has insufficient value: it reads 30¢ and your trip cost 65¢. In this case, the exit gates will not open. Your ticket will be returned, and a little sign on the gate will flash "Ticket Underpaid—Go to Addfare." In this case, you simply pick up the ticket and step over to an "Addfare" machine. Insert the ticket and a lighted panel will tell you how much money you need to add to the ticket to get out. (A change machine next door is there to help you make the necessary adjustments.) When the window marked "Additional Fare Required" reads zero, the Addfare machine will flash: "Good for Exit." You go back to the exit gate and, this time, the ticket lets you through.

This has taken a lot longer to explain, in words and pictures, than it takes in practice. But, should a passenger—at any time—think the machines have got the better of him, the *Station Agent* in the Information Booth by the machines will sort it out. That's what he's there for.

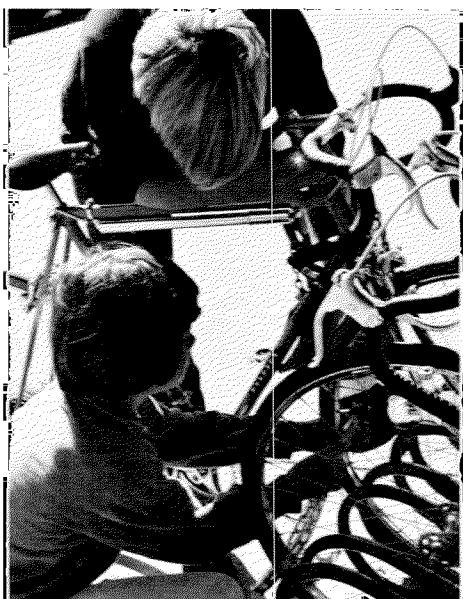
One thing to remember is that BART's machines "think" with magnetic tape. The ticket's brown stripe is encoded with all the value, entry, exit and timing information. Rough handling or exposure to a magnet could destroy its usefulness. It's just like money, so keep it in a safe place.

People often ask why BART needed all this space-age machinery? The answer is simple. Speed and convenience. From the outset, BART's planners and engineers knew that for people to switch from their cars to rapid transit the whole experience had to be easy and enjoyable. And that definitely includes how easy it is getting into and out of the stations.



# Getting there is

When they set out for their Saturday sailing lesson at Lake Merritt, Nick and Bob Wilson decided it was a good opportunity to take their



The boys follow BART's blue and white 'pathfinder' signs down Decoto Road right up to the Union City station...

... and leave their bikes in the rack by the entrance. (You can't take bikes on BART trains.)



The tickets go in and the orange panels slide back before you can say "Open Sesame." Now for the trains!



A quick look to check they're headed for the right platform,



and they're up the stairs two at a time...



just in time to make the Richmond train.



At the Lake Merritt Station, Bob checks the local map to see if the lake is close enough to walk to. (It is.)



They get out of the station the same way they got in—except that these exit gates deduct the fare for the ride.



A peek through the wall at BART's Lake Merritt computer center which makes the entire system run....

# half the fun.

first ride on BART. We sent a photographer along to snap what happened.

## You'll be seeing a lot of these BART people:

**BART Train Attendants** are up front of every train. Their responsibility is overseeing the operation of the BART cars and making intercom announcements of train destinations and other information.

**Line Operations Supervisors** are in charge of Train Attendants and Station Agents as well as the trains. It's their responsibility to keep things running smoothly.

Every BART station will have at least one **Station Agent**. He serves as the 'manager' of that location. He's there to advise, inform and assist, either personally or when you call him on the white courtesy telephones placed throughout each station.

BART has its own **Security** people regularly patrolling stations, trains and parking areas.

Look for our **BART Passenger Representatives**. They are mobile extensions of our Station Agents, acting as special service assistants.



A limited number of this **COMMEMORATIVE PUBLICATION** is available in deluxe edition.

Same size and content as this rotogravure supplement, but printed on high quality glossy paper. Hard bound cover in blue and silver. A collector's item.

Each copy \$7.50. Postage and tax included. Mail to: BART Passenger Services, 800 Madison Street, Oakland, California 94607.

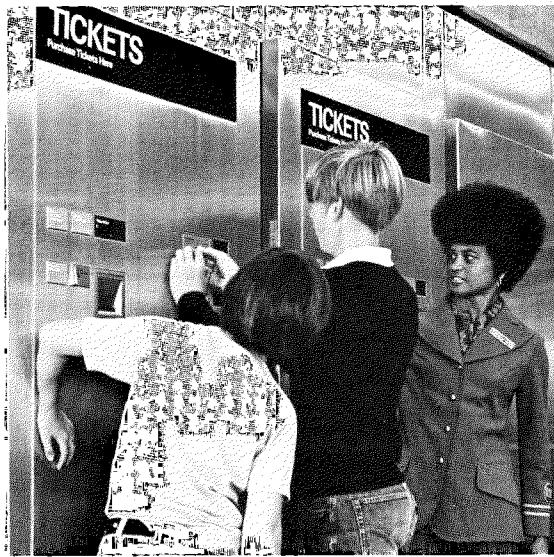
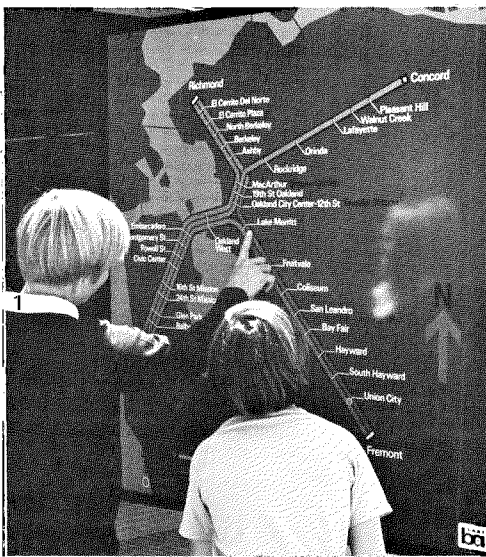
Please send me \_\_\_\_\_ copies of the deluxe edition of BART's Commemorative Publication at \$7.50 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

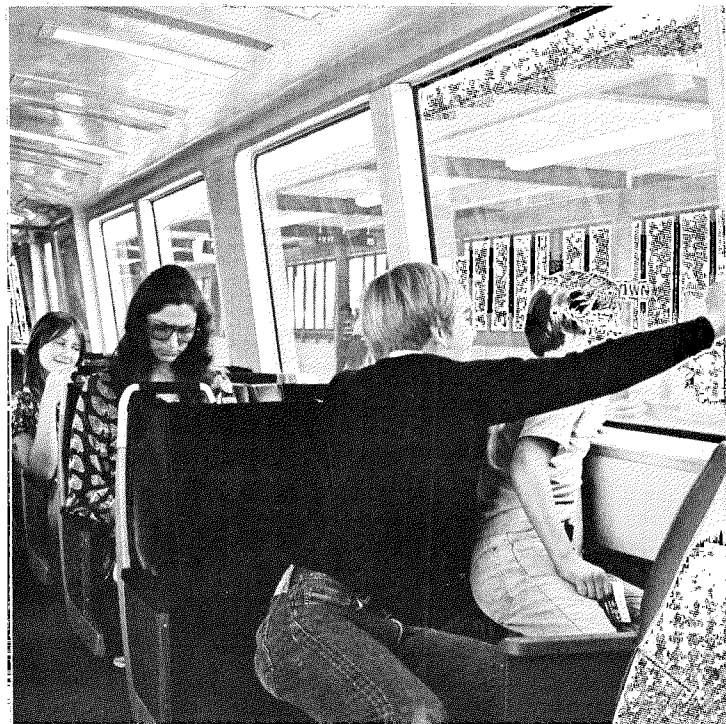
I enclose \$ \_\_\_\_\_

City \_\_\_\_\_ Zip \_\_\_\_\_

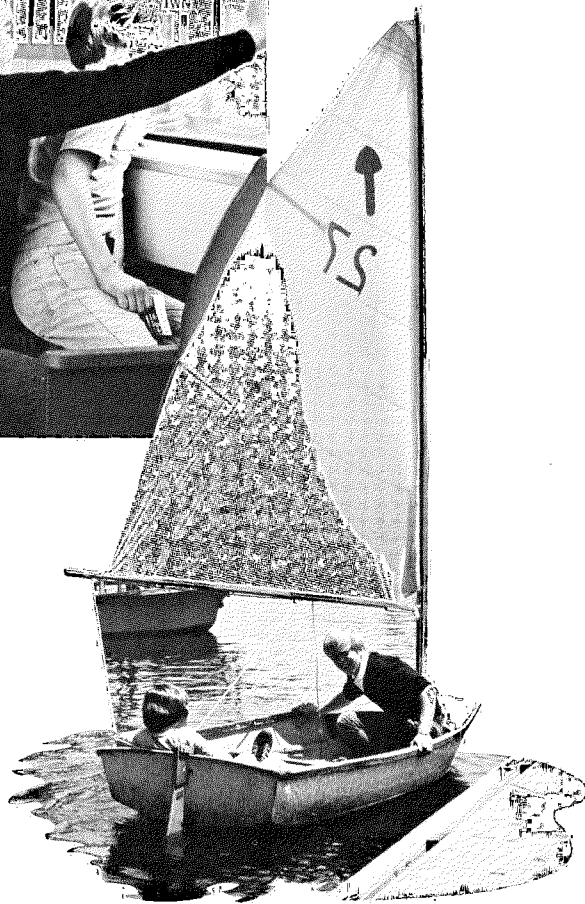


Outside the station they do what everyone does first time out—they figure out where they're going and what station to get off at. Several of these large scale Route maps are displayed at every BART station.

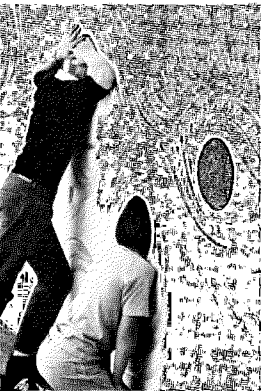
Bob puts a dollar, two quarters and two dimes in the ticket machine, presses the magic button and out pops his round-trip ticket. (Since Nick is not yet 13 his dad has already bought his special red discount ticket at a local bank.)



During their 20 mile, 22 minute trip to Lake Merritt, Bob and Nick get a chance to see several stations.



and they're off... and sailing!





# PRESIDENT'S MESSAGE

by George M. Silliman, President, Board of Directors, Bay Area Rapid Transit District

As one of the two current BART directors with 15 years of service on the Board, I have watched the BART system emerge from the tenuous dreams of its inception to the people-carrying reality of today.

The final product didn't come quickly, cheaply or easily but, as the pages of this publication indicate and a ride will confirm, the BART system is one of the best investments made by the people of the Bay Area.

It is an investment that achieves the immediate goal of providing a most efficient transportation service to millions of people and a giant step towards the achievement of the long range goal of providing an instrument for coordinated urban planning for the entire Bay Area.

The BART system is the nucleus of a transportation system that will eventually serve all 9 Bay Area Counties. With only a 28 mile segment of the 75 mile system in operation, expansion is already on the drawing boards. Under actual study are rail transit links to both San Francisco and Oakland airports; the Antioch-Pittsburg area of eastern Contra Costa County; the Livermore-Pleasanton region of southeastern Alameda County; and the northwest segment of San Francisco.



George M. Silliman, Alameda County

Federal funding is easier to come by today than it was in BART's pioneering days in the 1950's and 1960's, making earlier starts on our extensions much more attainable.

A 300 mile rapid transit system embracing all nine Bay Area Counties will not happen overnight, nor be without its problems, but it is much closer to reality than ever before. It may sound like an optimist's dream, but then, so did a 75 mile system back in 1962. I am convinced that such a dream can be fulfilled and know my conviction is shared by current and former board members, who have given their time and talent in guiding this project.

Those former board members are:

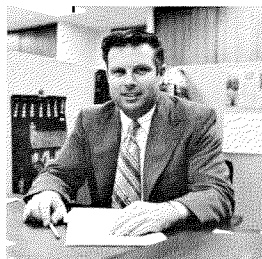
Mr. Frank N. Alioto, Mr. Richard A. Bancroft, Mr. Newell B. Case, Mr. Thomas F. Casey, Jr., Mr. Allen E. Charles, Mr. Felix Chialvo, Mr. H. L. Cummings, Mr. Arthur J. Dolan, Jr., Mr. Adrien J. Falk, Mr. William S. Godfrey, Mr. Garland D. Graves, Mr. Thomas Gray, Mr. Stanley T. Grydyk, Mr. Robert Higgins, Mr. John C. Houlihan, Mr. Wallace J. S. Johnson, Mr. Marvin A. Joseph, Mr. Roger D. Lapham, Jr., Mr. Clair W. MacLeod, Mr. Harry L. Morrison, Jr., Mr. J. Joseph Sullivan and Mr. Sherwood Swan.

## DIRECTORS

### ALAMEDA COUNTY



Arnold C. Anderson  
Past President



Richard O. Clark



H. R. Lange

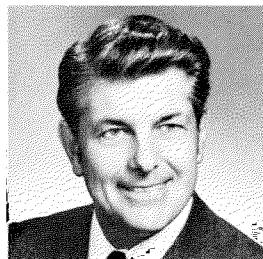
### CONTRA COSTA COUNTY



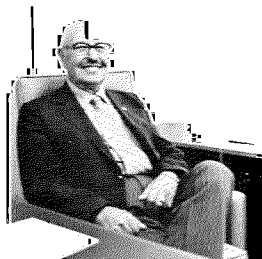
Nello J. Bianco



James P. Doherty  
Past President



Daniel C. Helix



Joseph S. Silva

### SAN FRANCISCO COUNTY



William H. Chester,  
Vice President



William C. Blake



Thomas F. Hayes



William M. Reedy  
Past President

# The corporate team that brought BART into being

The assignment that was handed to BART's engineering consultants some 20 years ago was direct and simple: "Produce the world's best mass transportation system for the people of the San Francisco Bay Area."

To deliver this, no one engineering firm could carry the full load. So three outstanding firms formed the joint venture of Parsons Brinckerhoff-Tudor-Bechtel and undertook the job of designing, engineering and management of the construction of the entire BART system.

PBTB did its job by recruiting the greatest engineering design team that ever has been assembled. BART's requirements over the years occupied a corps of thousands of civil, structural, mechanical and electrical engineers, as well as essential specialists such as supervising architects who coordinated the work of planning 34 community-oriented stations.

Obviously, planning for people has to be done by people, so perhaps you would like to know that PBTB's Board of Control is composed of John P. Buehler, of Bechtel Corporation; Walter S. Douglas of Parsons, Brinckerhoff, Quade & Douglas; and Louis W. Riggs of Tudor Engineering Company. Their project director in charge of the BART job is W. A. Bugge.

Bechtel is one of the world's leading engineering firms, operating in 38 countries from its San Francisco base. Its staff of about 6,000 engineers designs and builds hydroelectric, fossil fuel and nuclear power projects, mining developments, refinery and pipeline projects and mass transportation systems. The company is highly experienced in designing and building service facilities for people. It was Bechtel's expertise in automation and large-scale electric projects that established the criteria for BART's automatic train control and \$55 million electric power system.

Parsons, Brinckerhoff, Quade & Douglas, based in New York, is outstanding in transportation planning. Founded by General William Parsons, the designer and builder of the first New York subways and a consultant on the London subway, the firm was the logical choice to perform the original feasibility study on BART. This led to formation of the joint venture and the assignment to design and supervise the building of the system. The company's record includes such accomplishments as the planning and design of 4,000 miles of highways, 1,300 bridges, and mass transportation systems in ten cities.

San Francisco's Tudor Engineering Company is widely known for transportation planning and engineering, including highways, bridges, port facilities and mass transit. Tudor's engineers also have completed transportation studies in Alaska, Hawaii, Contra Costa and Marin Counties and Seattle in the United States, as well as in Latin America.

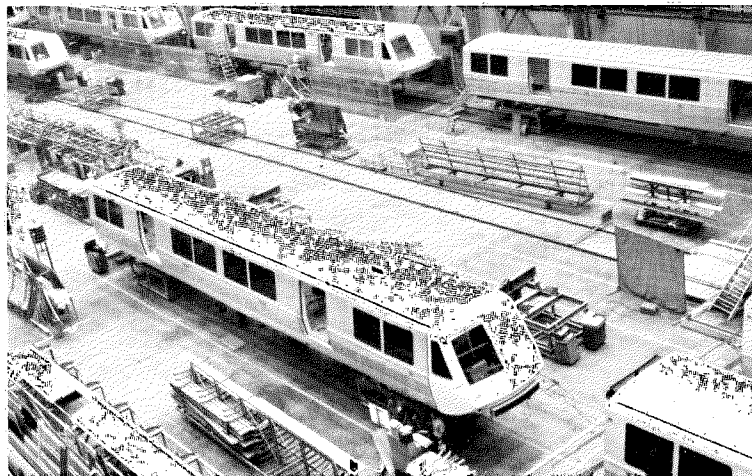
These three firms had a reservoir of capability to run a railroad right-of-way through tubes under the bay, to tunnel the Berkeley Hills, to provide BART customers with a new kind of high-speed, quiet, comfortable train, operating over 75 miles of line, stopping at 34 convenient stations, self served by a space-age ticket vending system, and with the innovation of an automatic electronic train control system. All this with the overriding requirements of safety and reliability.

Having delivered on BART, PBTB's people are now in demand in other cities. In Atlanta, they are planning a \$1.3 billion rapid transit system. In St. Louis, they have completed a study for an integrated train and bus system. In Caracas, Venezuela, they have just finished plans for a \$700-million transit network.

But BART is the favorite of PBTB's staff. Some of them have been working on it almost 20 years! They have had a long, close involvement with this people-oriented project that crossed so many new frontiers of technology. In more ways than one, it was the job of a lifetime.

# These firms, working with BART, helped finance the production of this book

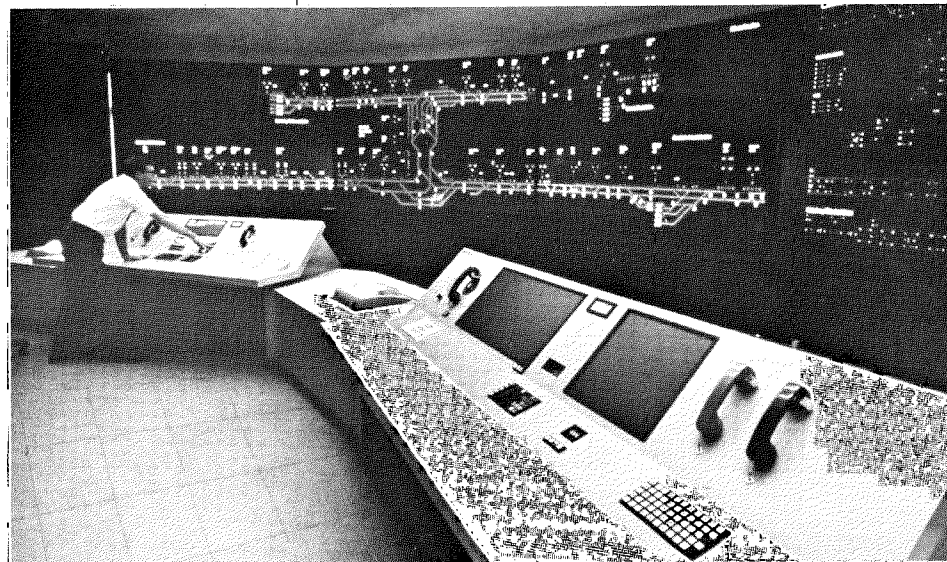
## Rohr Industries builds the BART car.



Rohr Industries also builds rapid transit cars for Washington, D.C.; provides half the nation's city transit buses; builds the Monocab people mover that was the hit of Transpo '72; is developing the Aerotrain air cushion vehicle, the ROMAG magnetic vehicle, and is engaged in a wide range of research projects for transportation of the future.

**ROHR**

— helping engineer a better tomorrow



## Westinghouse equipment and systems are working at BART

Westinghouse Electric played a big part in making BART a reality.

BART is a showcase of modern mass transit. Westinghouse supplied the automatic train control, the advanced propulsion equipment, as well as air conditioning and computers. In addition, we supplied car testing equipment, escalators, elevators, and lighting equipment.

Westinghouse is also playing a key role in other transit systems such as New York City; Washington, D.C.; Sao Paulo, Brazil; and both Seattle-Tacoma and Tampa International Airports.

You can be sure...if it's Westinghouse



## BART and IBM

BART is a major step forward for a progressive American city striving to meet the needs of its people and to improve the quality of urban life — IBM takes pride in its contribution to that achievement through its development of BART's automatic fare collection system.

IBM is working to meet man's needs on many fronts—helping to speed the mail, to fight pollution, to improve the administration of justice, to enhance the safety of travel in our nation's skies.

**IBM**

**Boss Group Companies** offer complete uniform and career apparel services including designs, manufacture, sales and rental, plus complete system support that includes individual deliveries and a comprehensive control program to assist clients with cost analysis.

Proud to be associated with BART's innovative transportation system, several Boss Group Companies have worked to develop BART's unique career apparel.

The Commercial Uniform Division of Los Angeles has created all the BART apparel; the Boss Rental Service Division of San Leandro will provide BART with a complete uniform leasing program.

Designed for quality and comfort, the distinctive BART uniforms will speak "pride and performance" for the men and women who wear them.

**Christensen & Foster**, a Santa Rosa general building contracting firm, is proud to have played a part in the construction of the world's most modern transit system.

In 14 years of incorporation, Christensen & Foster has successfully completed more than 700 individual contracts over the width and breadth of Northern California for all manner of clients, including private corporations, public utilities, city, county, state and federal government jurisdictions, and all branches of the armed forces.

Completed and presently active BART contracts include station finishes at the MacArthur, Berkeley and Civic Center

Stations, platform finishes at 16 stations on the East Bay Lines, and construction of San Francisco's Hallidie Plaza.

It is Christensen & Foster's policy to undertake quality construction in a timely and efficient manner through the media of aggressive management and the melding of their own personnel with that of subcontractors' and materials suppliers.

Christensen & Foster looks forward to many more years of aggressive and satisfying endeavor in the building construction field in Northern California.

**Peter Kiewit Sons' Co.** has performed virtually all types of construction in its 88-year history.

Following extensive defense construction during World War II, the company resumed its operation in building and highway work, and also expanded the nature of its heavy engineering construction to include marine, mining and tunneling operations.

Headquartered in Omaha, Nebraska, it is now one of the nation's larger construction organizations with district and area offices located coast to coast (including Alaska) and

from Vancouver, British Columbia to Montreal, Canada.

Its work on BART has included heading the joint venture construction of the transbay tube, twin compressed air tunnels beneath San Francisco's Mission Street, the twin-tunnel Diamond Street subway, and the Glen Park, Van Ness and Civic Center Stations. Its Castcon Division has manufactured and/or installed approximately 25 miles of pre-cast, pre-stressed concrete double track girders for the aerial portion of the BART system.

**Homer J. Olsen, Inc.** has constructed West Coast projects from Southern California to the State of Washington with expertise in the management and engineered construction of unusual and complicated jobs. These include airports, highways, bridges, environmental protection projects and portions of the Bay Area Rapid Transit system.

The Olsen organization has been involved, either singly or in joint venture with other heavy construction contrac-

tors, in nine BART contracts located on both sides of the Bay, with a total construction cost of \$62 million. These contracts include: Powell Street Station and tunnels, Balboa Park Station, Oakland Subway tunnels and structures and Powell & Montgomery Street Stations' mezzanine extensions.

It has been an honor to be part of such a significant project.

**Sundberg-Ferar**, industrial designers of Southfield, Michigan, was responsible for two of the most significant design elements of the BART system—the BART car and BART logo symbol.

Sundberg-Ferar's car design achieves the prime objective of providing the transit passenger with luxurious, comfortable surroundings and its logo design is a strong symbol which will immediately identify station locations, trains and

all BART literature. Both have become trend setters and goals for other transit agencies to strive for.

Since completion of the BART design, Sundberg-Ferar has designed and built prototypes of fifteen transit vehicles for other major cities in the country including New York, Long Island, Washington, D.C., Chicago, Baltimore, Las Vegas and the Boeing State-of-the-Art Car for the United States Department of Transportation.

Gallagher & Burk

Kaiser Industries

McGuire & Hester

Midland Industrial Electric Co.

Morrison-Knudsen Co., Inc.

Newbery Electric Corp.

Perini Corp.

Winston-Drake-Early

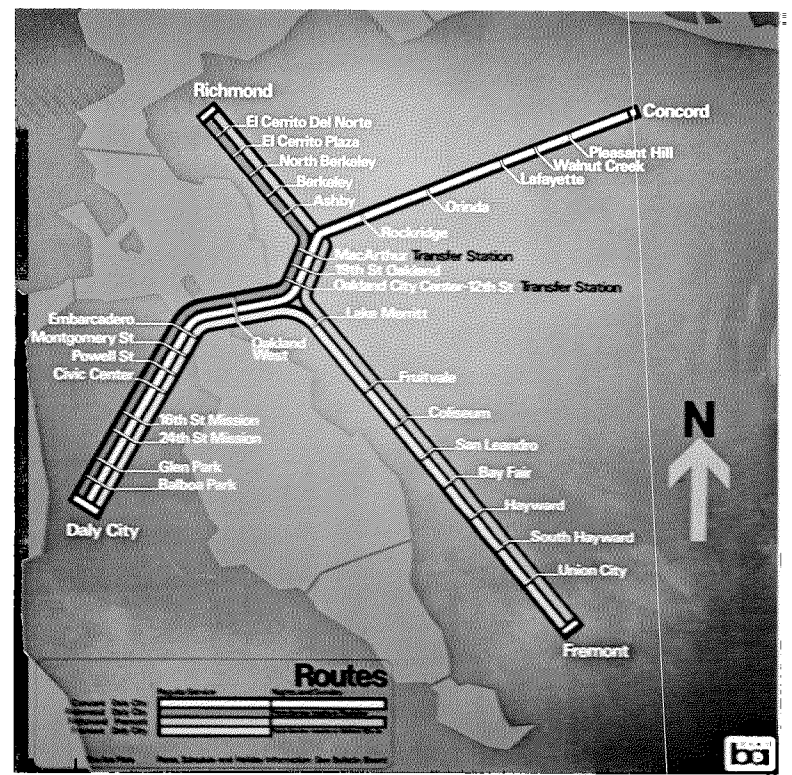
# How to make sure you get on the right train.

As you can see from this station route map there are four BART routes with four destination cities: Richmond, Concord, Fremont and Daly City. Every BART train heads for one of these end-of-route destinations. Look up the station you are going to on the route map (there are several at every station) and remember on which of these routes it's located.

Just check for the right destination on the sign over the stairways or escalators leading to the station platforms. There are electronic signs along the platforms too, which indicate which of the four routes is being served, so it is pretty difficult to go out of your way. But should you find yourself at the wrong destination, one of

BART's Station Agents will be happy to put you back on the right track.

At this time there is weekday service only (6 a.m. to 8 p.m.) from Fremont to MacArthur station. When BART's full 75-mile system is completed, the following schedule will be in operation: during daytime hours, Monday through Saturday, there will be direct service on all routes. Concord travelers going to Richmond or Fremont have to change trains at MacArthur or Oakland City Center-12th Street. The precise times of first trains in the morning and last trains at night will vary slightly according to station, but when everything is running as planned, service will start at 5 a.m. and end at 1 a.m.



# What the ride will cost and how long it will take.

## TIME

(Example: Oakland City Center-12th St. to Hayward-18 minutes.)

FARE (Example: Oakland City Center-12th St. to Hayward-60¢.)

Concord	5	7	11	16	21	41	33	36	33	31	29	60	56	52	48	45	42	38	36	32	28	26	27	30	50	47	45	43	41	39	33	37	36
Pleasant Hill	2	6	11	16	36	33	31	28	26	24	55	51	47	43	40	37	33	31	27	18	21	22	25	45	42	40	38	36	34	33	32	31	
Walnut Creek	4	9	14	34	31	29	26	24	22	53	49	45	41	38	35	31	29	25	16	19	20	23	43	40	38	36	34	32	31	30	29		
Lafayette		5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25		
Orinda			5	25	22	20	17	15	13	44	40	36	32	29	26	22	20	16	7	10	11	14	34	31	29	27	25	23	22	21	20		
Rockridge				5	20	17	15	12	10	8	39	35	31	27	24	21	17	15	11	2	5	6	9	29	26	24	22	20	18	17	16	15	
Richmond					3	5	8	10	12	49	45	41	37	34	31	27	25	21	15	18	19	22	42	39	37	35	33	31	30	29	28		
El Cerrito Del Norte						2	5	7	9	46	42	38	34	31	28	24	22	18	12	15	16	19	39	36	34	32	30	28	27	26	25		
El Cerrito Plaza							2	4	41	37	33	29	26	23	19	17	13	7	10	11	14	34	31	29	27	25	23	22	21	20			
North Berkeley								2	39	35	31	27	24	21	17	15	11	5	8	9	12	32	29	27	25	23	21	20	19	18			
Berkeley									37	33	29	25	22	19	15	13	9	3	6	7	10	30	27	25	23	21	19	18	17	16			
Ashby										4	8	12	15	18	22	24	23	34	31	30	33	53	50	48	43	44	42	41	40	39			
Fremont											4	8	11	14	18	20	24	30	27	26	29	49	46	44	42	40	38	37	36	35			
Union City												4	7	10	14	16	20	26	23	22	25	45	42	40	38	36	34	33	32	31			
South Hayward													3	6	10	12	16	22	19	18	21	41	38	36	34	32	30	29	28	27			
Hayward														3	7	9	13	19	16	15	18	38	35	33	31	29	27	26	25	24			
Bayfair															4	6	10	16	13	12	15	35	32	30	28	26	24	23	22	21			
San Leandro																2	6	12	9	8	11	31	28	26	24	22	20	19	18	17			
Coliseum																	4	10	7	6	9	29	26	24	22	20	18	17	16	15			
Fruitvale																		6	3	2	5	25	22	20	18	16	14	13	12	11			
Lake Merritt																			3	4	7	27	24	22	20	18	16	15	14	13			
MacArthur																				1	4	24	21	19	17	15	13	12	11	10			
19th St. Oakland																					3	23	20	18	16	14	12	11	10	9			
Oakland City Center-12th St.																						20	17	15	13	11	9	8	7	6			
Oakland West																						3	5	7	9	11	12	13	14				
Daly City																						2	4	6	8	9	10	11					
Balboa Park																							2	4	6	7	8	9					
Glen Park																							2	4	5	6	7						
24th St. Mission																							2	3	4	5							
18th St. Mission																								2	3								
Civic Center																									1	2							
Powell																										1							
Montgomery																																	
Embarcadero																																	

### SPECIAL FARES

Children 12 and under and senior citizens 65 and over may ride BART at one-fourth the full fare on a special red ticket. These red tickets must be purchased at banks participating in BART's neighborhood ticket sales program and are not available from the regular vending machines in BART stations.

The cost of special red tickets is \$2.50 (good for \$10.00 worth of rides). BART's regular fare tickets may also be purchased at local banks in values of \$10 and \$20.

### BUS TRANSFER

BART passengers can pick up a free, one-zone bus transfer upon leaving East Bay stations served by AC Transit.

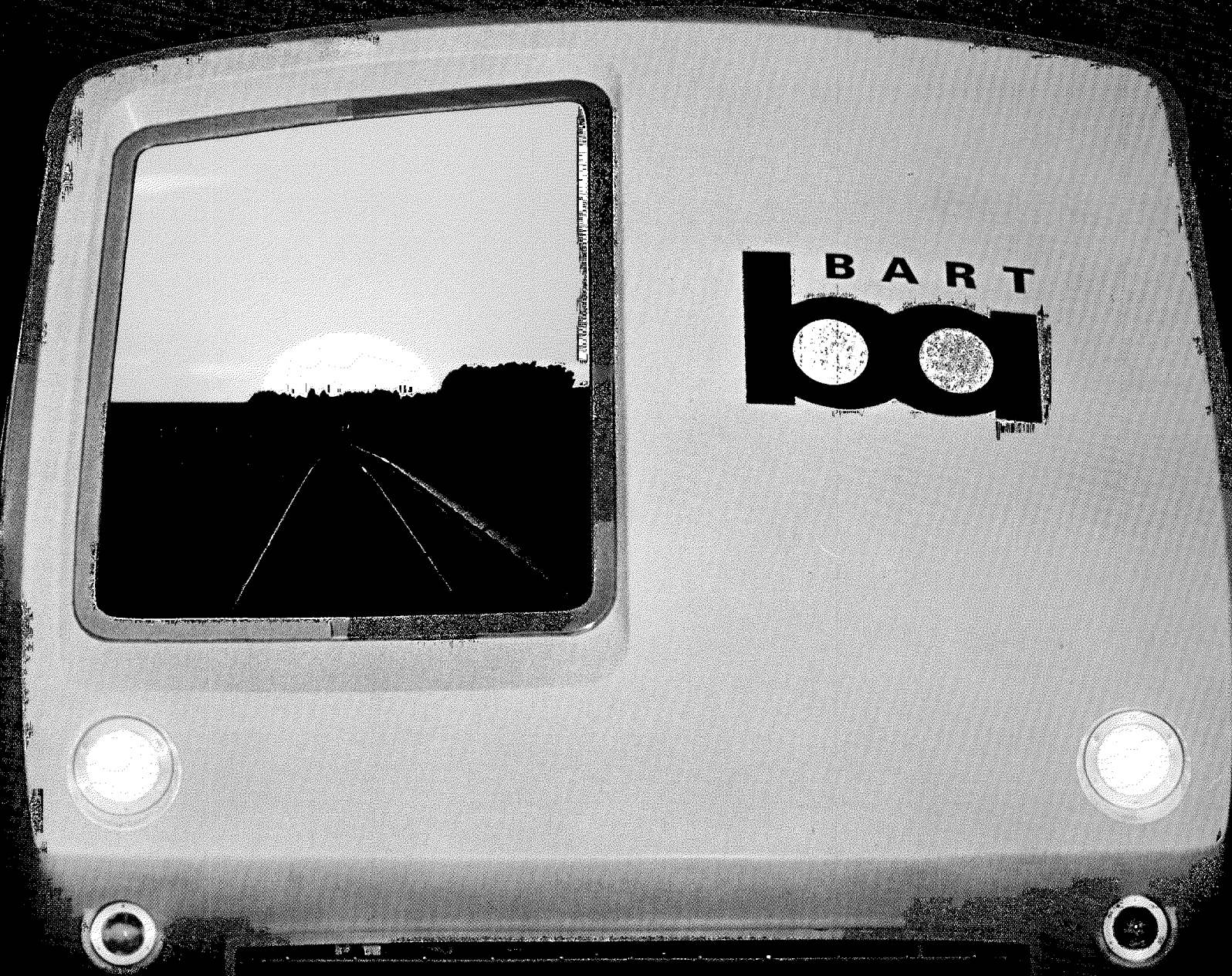
This transfer is dispensed from the white bus transfer machine located in each station's paid area.

### ROUND TRIP RIDES

You can take rides of up to 3 hours on BART for 60¢, regardless of the distance you travel. But you must begin and end your trip at the same station.

**A  
bright  
new day  
for the  
Bay Area**

# BART



**A bright new day for the Bay Area**

**Published by Bay Area Rapid Transit District, 800 Madison, Oakland 94607**

An advertising supplement to: San Francisco Examiner & Chronicle, Oakland Tribune, Alameda Times Star, Hayward Daily Review, Fremont-Newark Argus, Livermore Herald News, Concord Transcript, Contra Costa Times, Richmond Independent, Berkeley Daily Gazette.

# We finally made it... Thanks for waiting!

It's been a long time coming, but now BART's off-and-running. It's running because the taxpayers of San Francisco, Alameda and Contra Costa Counties had the foresight to approve a \$792 million bond issue in 1962. It's running because of the individual city and county staff members who worked so hard to make it happen. And it's running because of the city and county, state and federal leaders who helped us overcome so many unforeseen hurdles. All deserve a sincere "thank you".

## Birth and Growth

The last ten years have been a period of well-publicized hurdles and highlights. But BART really began back in 1951 with the formation of the nine county San Francisco Bay Area Rapid Transit Commission. The commission was assigned the task of making a comprehensive study of the Bay Area's transit needs. Parsons-Brinckerhoff—the "PB" of PBTB, our consulting engineers—made the feasibility study. Its recommendations resulted in the state legislature's creation of a five-county rapid transit "District." The District's job was to develop a workable plan for a high speed, rapid transit system and, upon voter approval, construct and operate it. Nicknamed "BART," it burst upon the scene in 1957, full of enthusiasm — and a staff of eleven.

The first order of business was to tell the public what we were planning and what progress we were making. Some of the early hands made as many as five speeches a night to any homeowner's group or service club that would listen. One information officer traveled from San Francisco to Half Moon Bay, and gave his presentation solely to the janitor who opened the school auditorium.



by B. R. Stokes,  
General Manager

## From Five Counties to Three

In the Spring of 1962, Marin and San Mateo Counties withdrew from the proposed district. But Alameda, San Francisco, and finally, Contra Costa stood firm. The measure was placed on the November 6 ballot. We needed 60 percent approval of a measure that asked the voters to build and operate a three-county, 75-mile rapid transit system, and to tax themselves to the tune of \$792 million. On November 7 late returns pushed the "yes" vote over the 60 percent mark. The final margin was 61.2 percent, a paper-thin edge, but then no other local public works project of this magnitude had ever made it on the first ballot.

The ballots had hardly cooled before a taxpayers' suit was filed challenging the legality of the District and its contract with the joint venture engineering firms. Although the District won its case, it was a bittersweet victory for BART: the lengthy trial caused a six-month delay.

In June of 1964, President Lyndon Johnson arrived in Concord with a flotilla of helicopters, blowing dust over some 30,000 people gathered at the site of the Diablo Test Track. The President touched

The Fall of 1965 was not a very bright one for BART. Only two bids came in for the downtown Oakland subway construction. The lowest was \$14 million *over* our engineers' estimates. So PBTB divided the contract into smaller packages, got more bidders, and eventually brought the project within budget. But this cost us almost a year in construction time.

## Money Headaches

BART's reserves were being eroded by an annual inflation rate of close to 7 percent. Several communities asked for changes in the basic plan, so we relocated 15 of our 34 stations and improved their architecture and landscaping. All to the good of the system, but hard on the treasury.

In August 1966 we received our first Federal construction grant. This eventually amounted to nearly \$200 million in Federal aid for everything from landscaping and car purchases to technical studies on extending the network. Construction on both the Oakland and San Francisco subways began at the end of 1967, and in 1968 BART received a \$28 million grant from the U.S. Department of Transportation to help develop and buy its trains.

## The Siege of Sacramento

While all this was going on, our directors and staff beat a path to Sacramento. They urged legislative relief to make up a fund deficit pegged at \$150 million. Construction had taken almost \$700 million and we faced the prospect of giving the Bay Area the world's first ghost system, rather than the rebirth of mass transportation.

Finally, on April 8, 1969, Governor Reagan signed a law temporarily increasing the sales tax in the three BART counties

from 5 to 5½%. It was a banner day for BART. Two days later the final section of the trans-bay tube was lowered into place. And, in July, we awarded a \$67 million contract for 250 streamlined cars.

## The Light at the End of the Tunnel

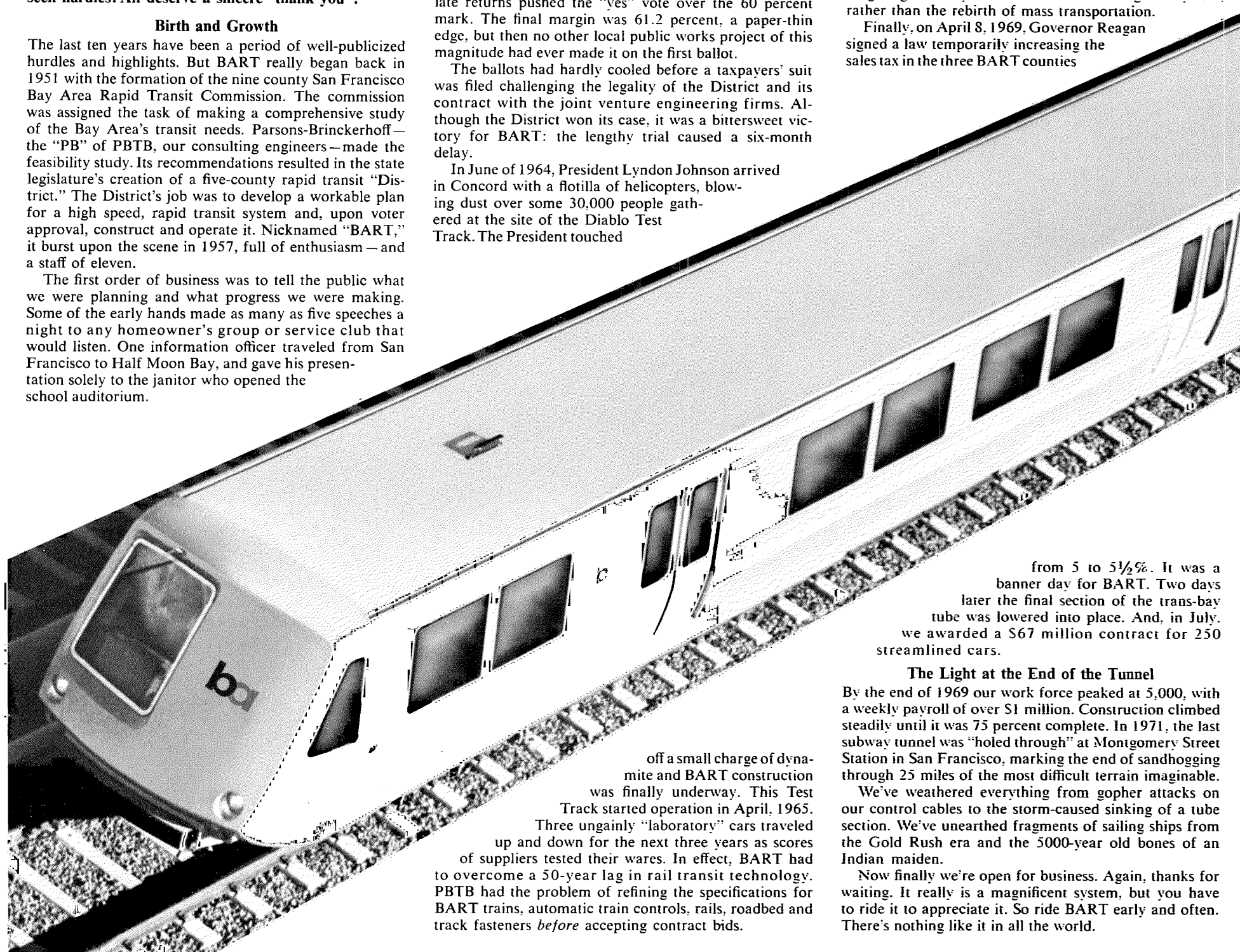
By the end of 1969 our work force peaked at 5,000, with a weekly payroll of over \$1 million. Construction climbed steadily until it was 75 percent complete. In 1971, the last subway tunnel was "holed through" at Montgomery Street Station in San Francisco, marking the end of sandhogging through 25 miles of the most difficult terrain imaginable.

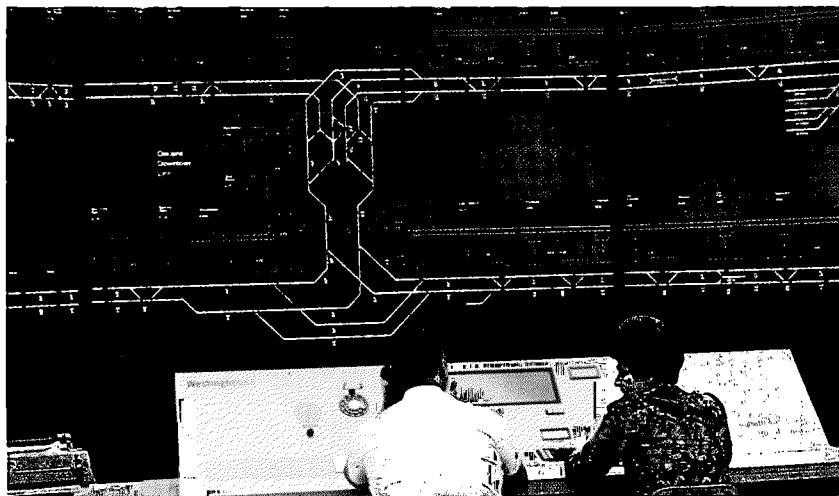
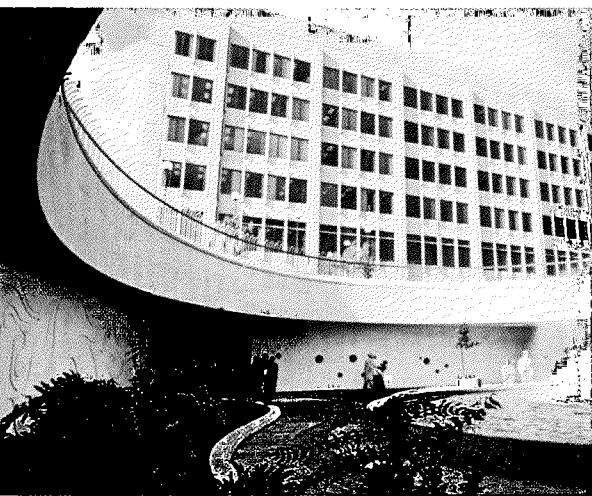
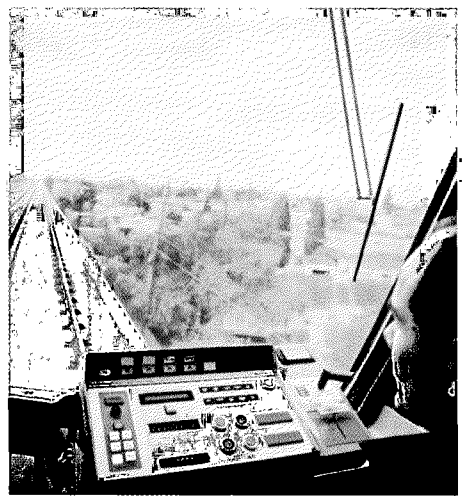
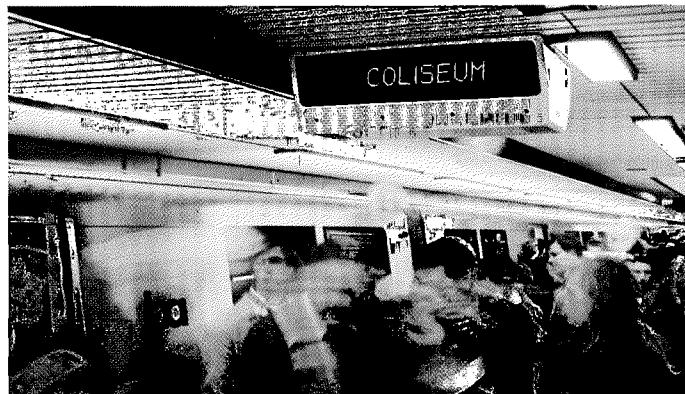
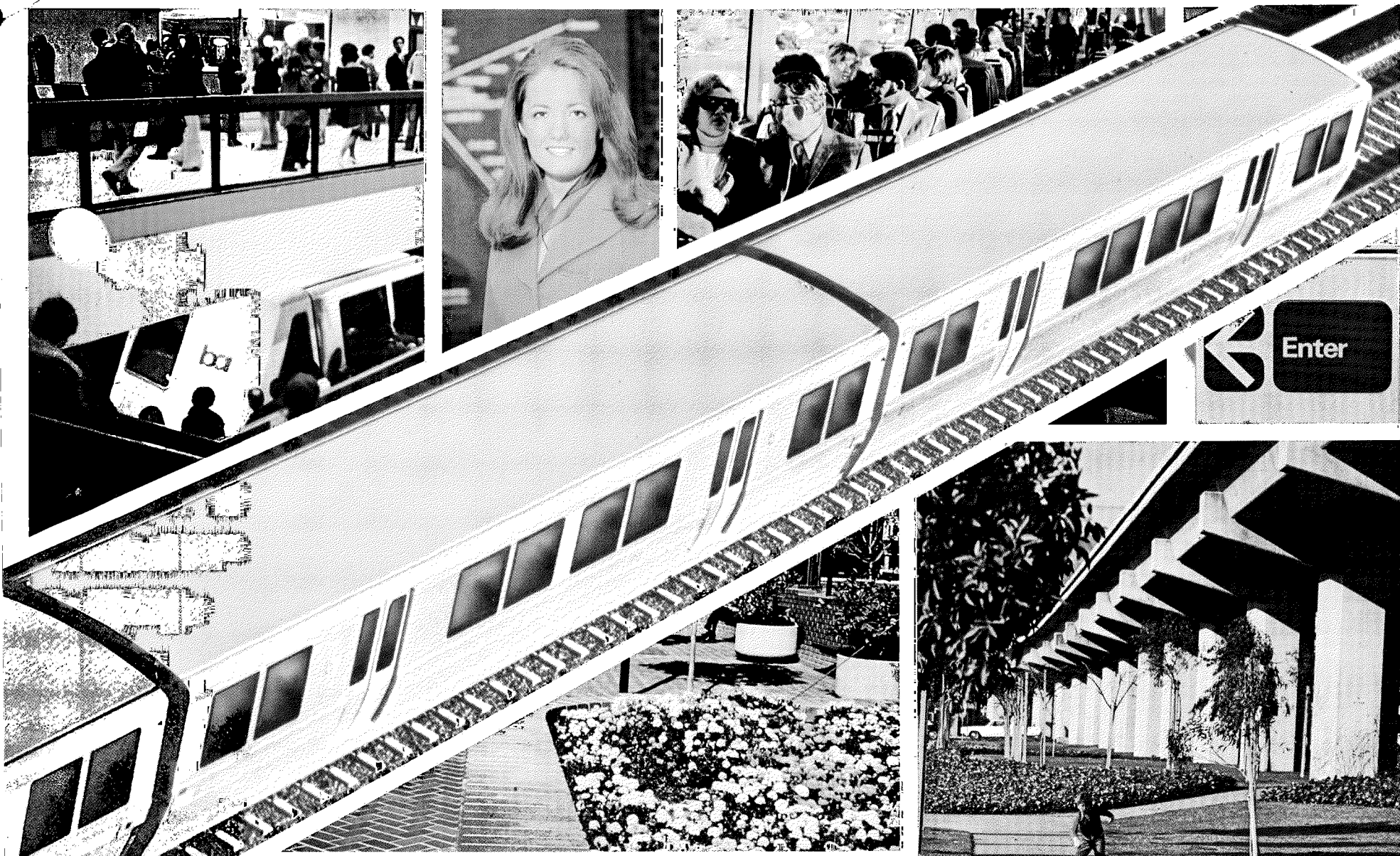
We've weathered everything from gopher attacks on our control cables to the storm-caused sinking of a tube section. We've unearthed fragments of sailing ships from the Gold Rush era and the 5000-year old bones of an Indian maiden.

Now finally we're open for business. Again, thanks for waiting. It really is a magnificent system, but you have to ride it to appreciate it. So ride BART early and often. There's nothing like it in all the world.

off a small charge of dynamite and BART construction was finally underway. This Test Track started operation in April, 1965.

Three ungainly "laboratory" cars traveled up and down for the next three years as scores of suppliers tested their wares. In effect, BART had to overcome a 50-year lag in rail transit technology. PBTB had the problem of refining the specifications for BART trains, automatic train controls, rails, roadbed and track fasteners *before* accepting contract bids.





# “The only thing missing is the clickety-clack”

Engineers, planners, architects and financial experts have invested hundreds of thousands of man-hours and 1.4 billion dollars making BART a reality. But, as far as the Bay Area commuter is concerned, all that is so much water over the dam. What they—and everyone else wants to know is “What’s it like to ride BART?” The only real way to find out, of course, is to buy a ticket and see for yourself. But, since BART is now running on only one of its legs, many people have not yet had the opportunity. So here—in words and pictures—is what to expect:

First, we have tried to make our cars every bit as comfortable as yours. You’ll find wall-to-wall carpet underfoot, extra wide foam padded seats and tinted picture windows that take up almost the whole side of the car. There’s year-round air-conditioning and heating too, and special recessed ceiling lights that ‘focus’ on your newspaper—not on your eyes.

Each car comfortably seats 72 people, with a generous aisle down the center. There are no overhead straps or luggage racks (there’s room for packages beneath each seat) and advertising posters are confined to the areas beside the doors and at the end of each car. You can follow your progress or see where a transfer of trains is necessary on any of the car’s four large route maps.

## What about the ride?

It’s smooth, relatively silent and very fast... top speed 80 mph, 42 mph average *including stops!* But missing, along with the clickety-clack, is the swaying and jiggling you expect on fast-moving trains. BART’s engineers developed their own version of a ‘wide track’ stance to stand up to Bay Area westerlies. Rails are spaced 9½” wider than the world-wide standard 4’8½”. And, to see that the satiny ride is maintained, BART’s entire 75 miles of track can be adjusted in ⅛” increments whenever the slightest wobble is detected.

To make sure the trains run on time, their stops, starts and speed are controlled from BART’s computer center, but every train will have a Train Attendant who can take over manual control should it become necessary. Passengers can communicate with him through an intercom system located at the end of each car.

But, the most satisfying part of a BART ride, people tell us, is whisking along next to a bumper-to-bumper Nimitz at 80 miles an hour.

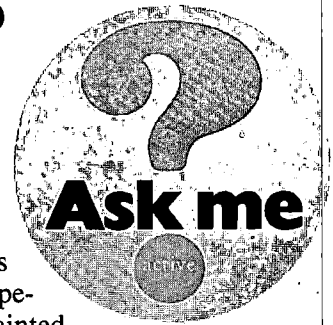
And that, after all, is what BART is all about.







## Got a question?



If you're in a BART station and you want to know which bus goes where—or what time the last train leaves for Fremont—or anything else you think we can help you with, just ask anybody wearing this button. These BART people have been specially trained to help the public get acquainted with the system as smoothly as possible.

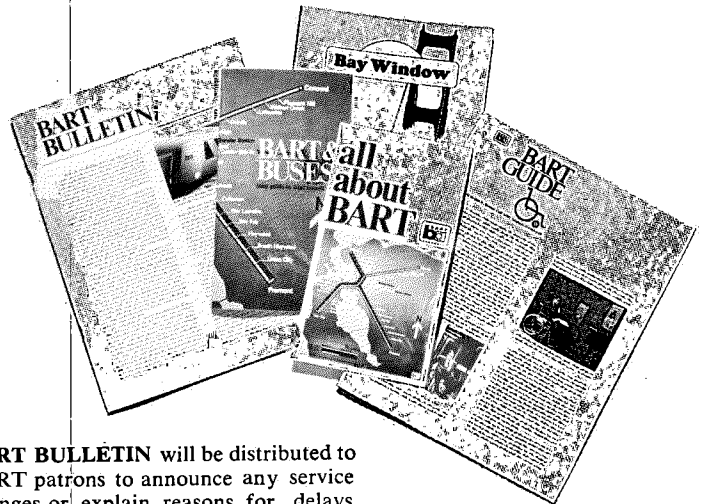
If you are *not* at a station you can get the same kind of help by dialing your area's three number prefix and the four letters B-A-R-T:

Oakland & Berkeley 465-BART Richmond & El Cerrito 236-BART  
 Fremont & Union City 793-BART San Francisco  
 Hayward & San Leandro 783-BART & Daly City 788-BART  
 Walnut Creek, Pleasant Hill & Concord 933-BART

BART's information center operates daily. There are bilingual Spanish and Chinese speaking operators on duty from 8 to 5.

So if you want to get from here to there in the Bay Area and are not sure how to go about it, just ask. We're happy to help.

## BART PUBLICATIONS



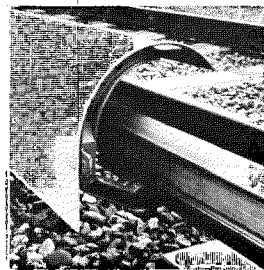
**BART BULLETIN** will be distributed to BART patrons to announce any service changes or explain reasons for delays or other problems.

**BAY WINDOW.** A monthly newsletter for passengers about activities, destinations and events of interest in the Bay Area and how to use BART to enjoy them. To be distributed free in stations.

**BART & BUSES.** A comprehensive map guide to transit travel in the Bay Area. Details coordination of BART routes and bus service, includes schedules of both AC Transit and San Francisco Muni.

**ALL ABOUT BART.** A small folding pamphlet answering most questions about how to use BART. Available in English, Spanish and Chinese editions through BART stations, banks participating in ticket sales, chambers of commerce, hotels, bus depots and the like.

**BART GUIDE.** English and Braille, with information on BART's installations and procedures to aid the handicapped.

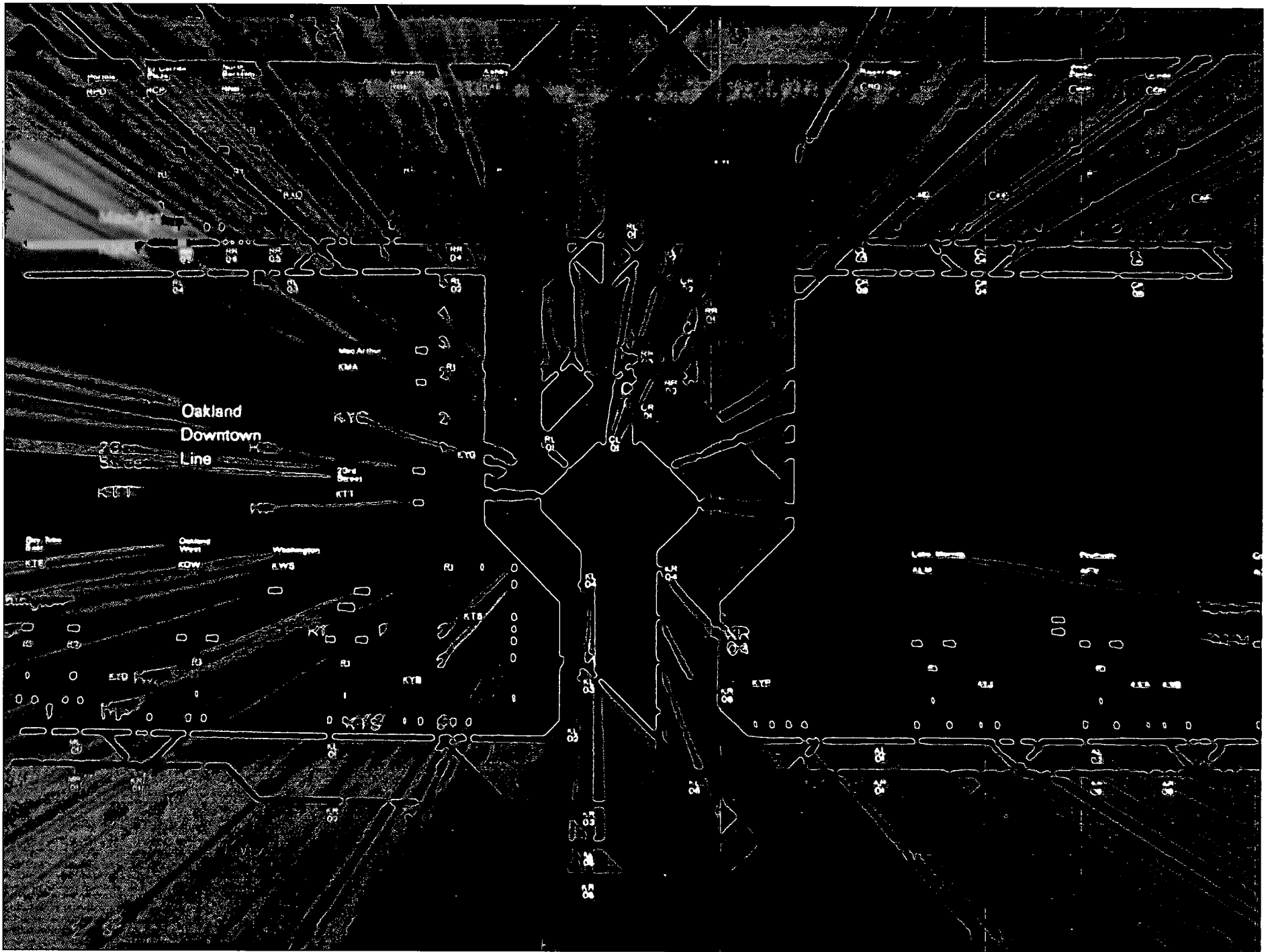


## The 3rd Rail

### A word of caution

BART trains run on two rails, with another rail alongside which carries the electric power. This 3rd rail packs 1,000 volts—enough to drive a 700 foot train at 80 mph!

As you've probably noticed, all BART's surface routes are fenced off from the public. For added safety the 3rd rail is partially covered with a protective shield. But you can help make the system even safer by telling your children to stay well away from BART tracks at all times. The 3rd rail doesn't *look* dangerous but it can inflict serious or fatal injury to anyone who touches it.



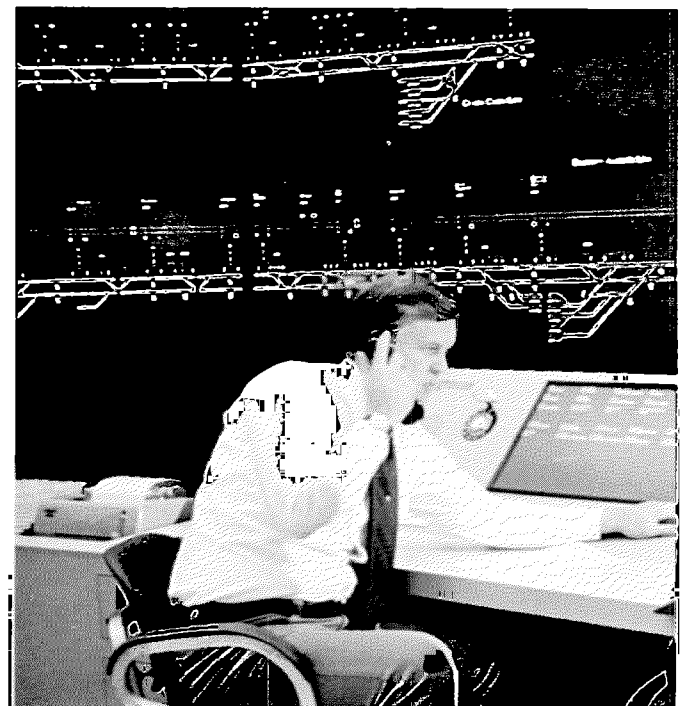
# The Computer and the Commuter

There's one BART first you'll appreciate but probably never see. That's the world's first computer-supervised train control system. Rather than having a lot of trains running on individual schedules, this gets all the BART cars working together. The computer and central supervision constantly adjusts the schedule of each train to maintain an even, efficient spacing.

The system includes a central control complex in BART's Lake Merritt Administration Building, with local control units in the stations, train yards and on the trains themselves, as well as communication links tying them all together. The local units control all the functions relating to safety, such as protective train spacing, speed limitation and locating switches to prevent misroutings.

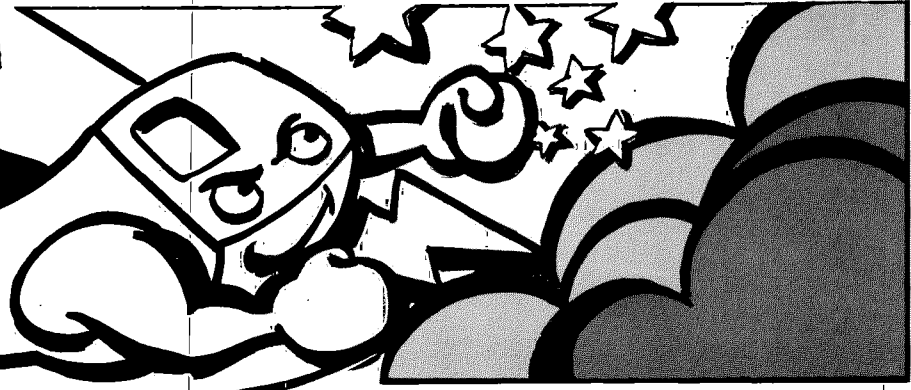
A giant central computer coordinates the whole system. It cannot override the safety functions of local systems, but can override other decisions, such as the time a train spends in a station, in order to keep everything running at peak efficiency.

Under this system, train acceleration and braking is smooth, safe and completely automatic. The computer determines departure times from yards and stations, and keeps an eye on routings. It requests train speed adjustments and makes other corrections to maintain the best possible service. In all these ways, our computer helps the commuter. By monitoring and supervising the whole network, it cuts operating costs and keeps trains running on an accurate schedule. You might say our computer has helped to bring back good old-fashioned personal service.

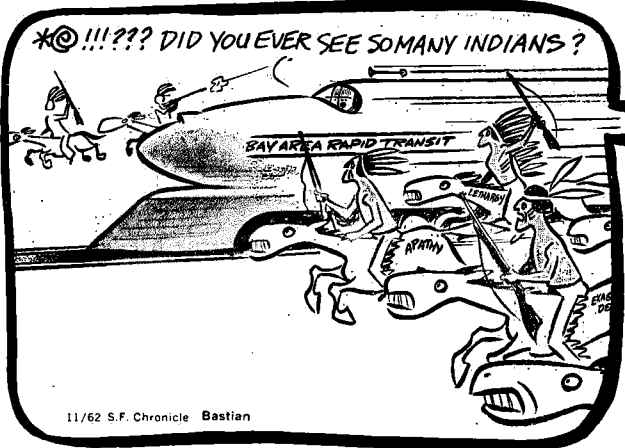


# BART THROUGH THE AGES

**CRACK!**

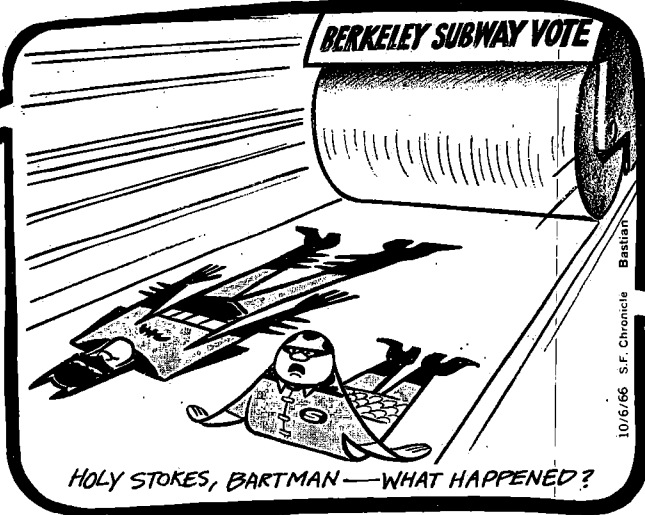


... AS SEEN BY BAY AREA CARTOONISTS



11/62 S.F. Chronicle Bastian

Slings and arrows were in goodly supply in November 1962, as supporters and detractors of BART battled down to the wire on the Rapid Transit bond issue. The righteous prevailed, with passage of the bond issue by a paper thin 61.2%.



10/6/66 S.F. Chronicle Bastian

HOLY STOKES, BARTMAN—WHAT HAPPENED?

Berkeley dwellers participated in a vote of their own in 1966, and by a whopping 75% agreed to spend upwards of \$20 million to bury another 3 miles of BART line and two stations. At that time, such additional design and construction loomed as an 18-month delay, a steam-roller, indeed.



11/24/67 S.F. Chronicle Bastian

"Santa Claus is coming to town"

San Francisco's Market Street appeared somewhat shell-pocked at Christmas, 1967, at the height of BART subway excavation. Some people must have made it through the barriers and over the boardwalks, however; merchants recorded a 6% increase in sales over the preceding year.



8/17/67 S.F. Examiner Schmidt

Miniskirts may have been the style in 1967, but thoughts of a mini-BART brought no admiring glances from BART's Board of Directors. Despite the spectre of a \$150 million deficit, the Board rejected trimming the 75-mile system, and agreed not to commence service until all was built as promised in 1962.



9/24/68 Smith S.F. Examiner

The tattered figure shown above was a familiar sight in Sacramento in 1968—and in 1967 and 1969—as BART struggled to get financial relief. Construction had slowed due to lack of funds, and the nightmarish vision of a \$700 million monument to futility was very much with BART.

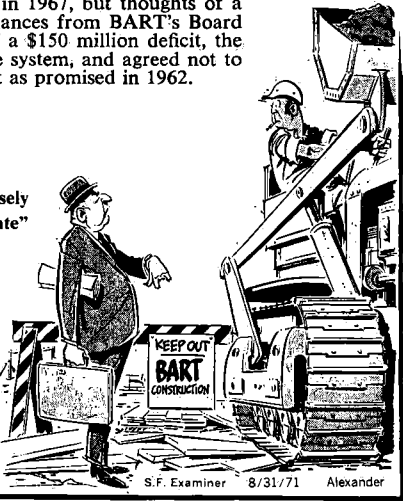


3/28/69 S.F. Examiner Alexander

"At last"

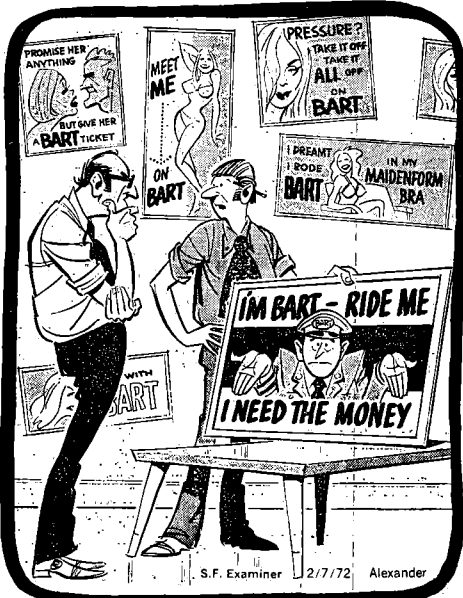
No mirage this time, cooling fiscal waters poured into the parched BART reservoirs in the form of a half-cent increase in the sales tax of Alameda, Contra Costa and San Francisco Counties. Governor Ronald Reagan signed the measure into law on April 8, 1969, providing BART with the \$150 million needed to complete the project.

"Sir, the 7:37 is precisely three years and six days late"



8/31/71 S.F. Examiner Alexander

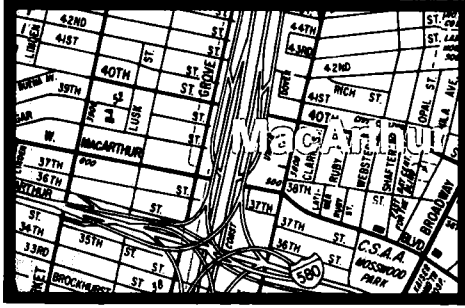
Fund shortages, lawsuits, changes in design, scope and physical amenities of the project—did indeed extend the construction phase of BART, as this Montgomery streeteer so frostily points out in 1971. His patience would wear even thinner through the following year, but the end result may tend to thaw him.



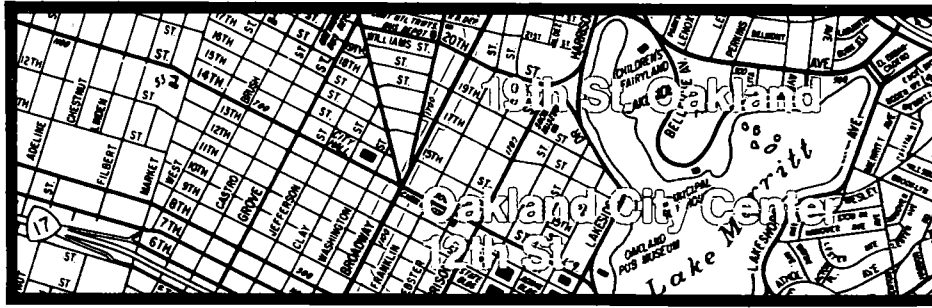
2/7/72 S.F. Examiner Alexander

BART's obligation to pay its operating costs from the fare box, with no taxing power to share the brunt of such cost, is a departure from the usual public transit practice. Consequently, an aggressive campaign was launched to lufe the traveler out of his car and onto BART's. Beguiling maidens touting rapid transit's message may not be the answer, but the cartoon's "I need the money" approach is right on the money.

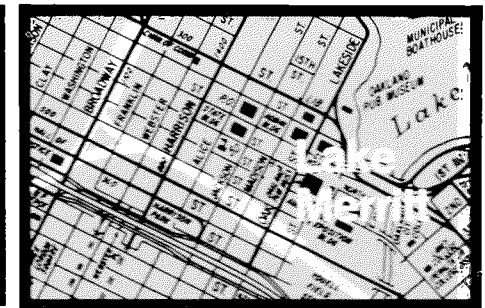
# BART's thirty-four stations



**MACARTHUR** 40th St. between Grove St. and Telegraph Ave.  
 • Free parking for 487 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: "C," 57, 15, 40, 41, 43, 14, 17.



**12th ST.** Broadway between 11th and 14th Sts.  
 • No parking; no bike racks.  
 • Served by the following AC Transit buses: "A," "T," 11, 12, 14, 15, 18, 31, 32, 33, 34, 36, 38, 40-43, 51/58, 59/76, 72/73, 80, 81, 81A, 82, 83, 88.

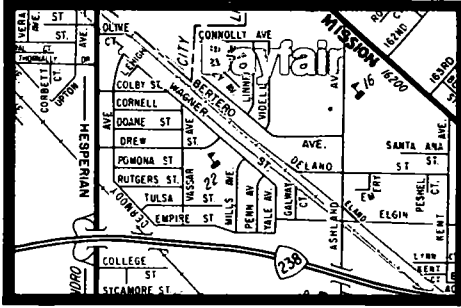


**19th ST.** Broadway between 18th and 20th Sts.  
 • No parking; no bike racks.  
 • Served by the following AC Transit buses: 11, 12, 18, 31/34, 36, 38, 40, 41, 43, 51/58, 59/76.

**LAKE MERRITT** Oakland between Broadway and 17th Sts. from Hwy. 17.  
 • BART headquarters and Computer Control Center; close to Laney College and Oakland Museum.  
 • 250 parking for 110 automobiles; 40 bike racks available.  
 • Served by the following AC Transit buses: 14, 32, 33, 35.



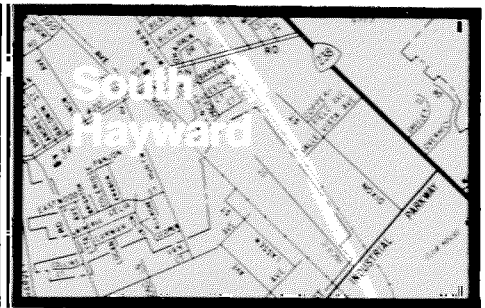
**SAN LEANDRO** San Leandro Blvd. between Davis and Parrott Sts.  
 • Free parking for 923 automobiles; 31 bike racks available.  
 • Served by the following AC Transit buses: N, 55, 60, 66, 81, 81B, 82.



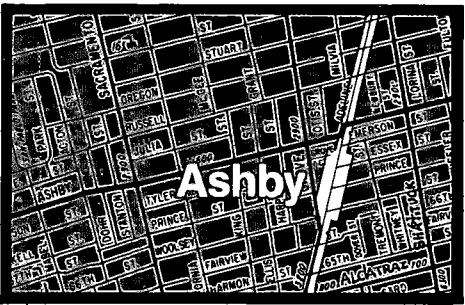
**BAY FAIR** Hesperian Blvd., adjacent to Bay Fair Shopping Center.  
 • Free parking for 1408 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 60, 62, 84, 93, 93A.



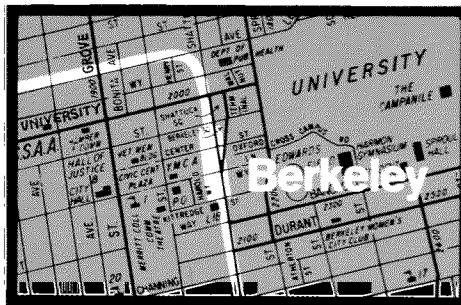
**HAYWARD** Montgomery St. between "B" and "C" Sts.  
 • Free parking for 696 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 60, 80, 81, 81A, 82, 90, 91, 91A, 92, 95.



**SOUTH HAYWARD** Tennyson Rd. and East 12th St.  
 • Free parking for 507 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 82, 91.



**ASHBY** Adeline between Ashby Ave. and Woolsey St.  
 • Free parking for 560 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: "P," 15, 17, 65.



**BERKELEY** Shattuck two blocks south of University Ave. at Center St.  
 • No parking; no bike racks available.  
 • Served by the following AC Transit buses: "F," 7, 15, 40, 43, 43A, 51, 65, 67.



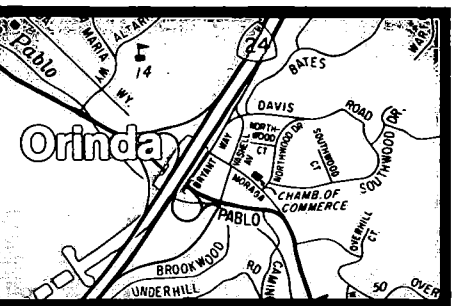
**NORTH BERKELEY** Sacramento and Delaware Sts.  
 • Free parking for 500 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 43, 43A, 51A, 65, 88.



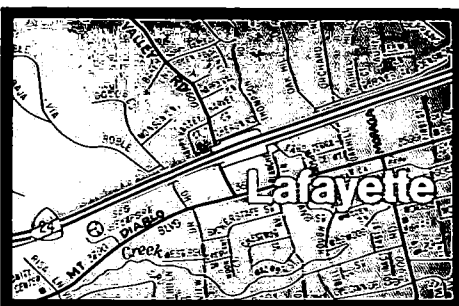
**EL CERRITO PLAZA** Fairmount Ave. adjacent to El Cerrito Plaza Shopping Center.  
 • Free parking for 509 automobiles; 35 bike racks available.  
 • Served by the following AC Transit buses: 51A, 67, 68, 70, 72, 72B, 78.



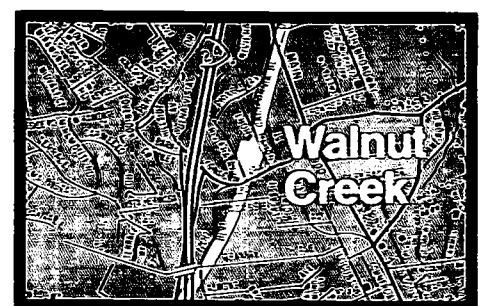
**ROCKRIDGE** College Ave. and the Grove-Shafter Fwy.  
 • Free parking for 776 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 17, 51.



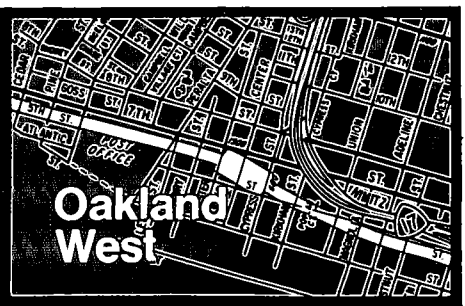
**ORINDA** Camino Pablo and Hwy. 24.  
 • Free parking for 939 automobiles; 18 bike racks available.



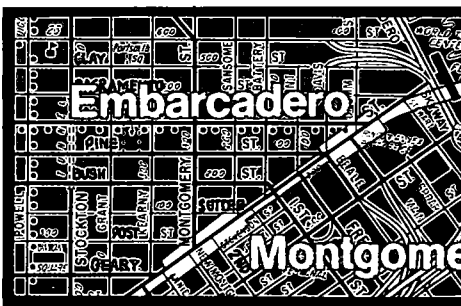
**LAFAYETTE** Deerhill Rd.; Hwy. 24 between Happy Valley and Oak Hill Rds.  
 • Free parking for 682 automobiles; 20 bike racks available.



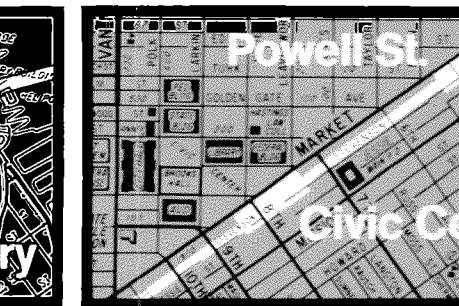
**WALNUT CREEK** Ygnacio Valley Rd. and Northern California Blvd.  
 • Free parking for 1114 automobiles; 18 bike racks available.



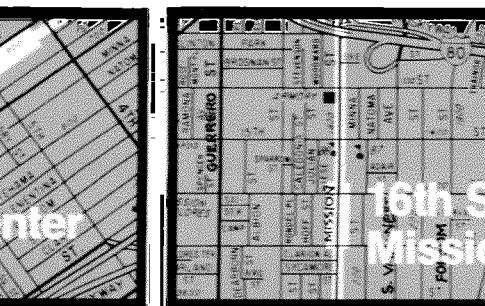
**OAKLAND WEST** Between 5th and 7th Sts., Center and Lewis Sts.  
 • Free parking for 391 automobiles; 20 bike racks available.  
 • AC bus service to be determined.



**EMBARCADERO** Market St. between Spear and Beale Sts. Two blocks from Ferry Building and Marin County Ferry.  
**MONTGOMERY ST.** Market St. between 2nd and New Montgomery Sts. Serves financial district.  
 • Muni bus service to be determined.  
 • No parking; no bike racks.

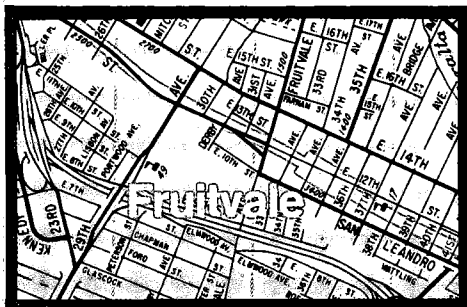


**POWELL ST.** Market between 4th and 5th Sts. Serves Union Sq., shopping and hotel district.  
**CIVIC CENTER** Market between 7th and 8th Sts. Serves City Hall, lower Market St.  
 • Muni bus service to be determined. Cable cars to Nob Hill and Fisherman's Wharf.  
 • No parking or bike racks available.



**16th ST. MISSION** Mission and 16th Sts.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.

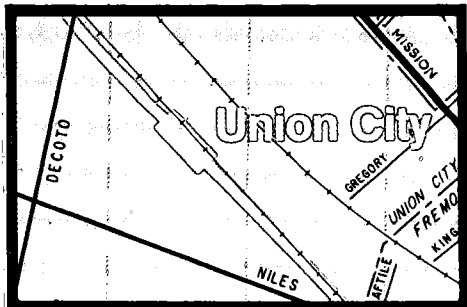
All you need to know about where they are, whether you can park, and which buses serve the station.



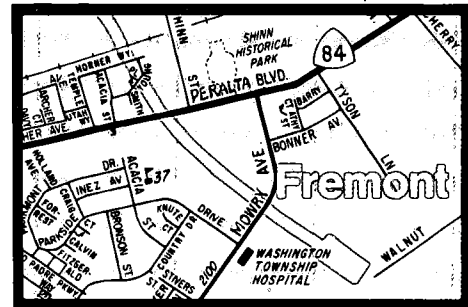
**FRUITVALE** 35th Ave. and East 12th St.  
 • Free parking for 730 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: 53, 54, 64, 79.



**COLISEUM** San Leandro St. between 70th and 73rd Aves.  
 • Free parking for 923 automobiles; 19 bike racks available.  
 • Served by the following AC Transit buses: 56, 57 (to airport).



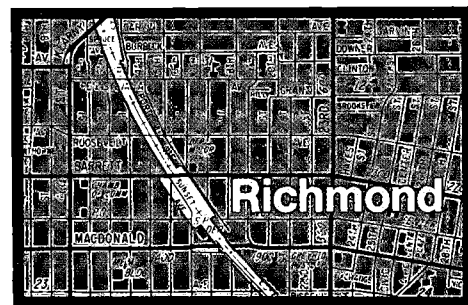
**UNION CITY** Decoto Rd. and Western Pacific R-O-W.  
 • Free parking for 485 automobiles; 18 bike racks available.



**FREMONT** Civic Center Pl.; 2 bks. southeast of Mowry Ave.  
 • Free parking for 700 automobiles; 21 bike racks available.



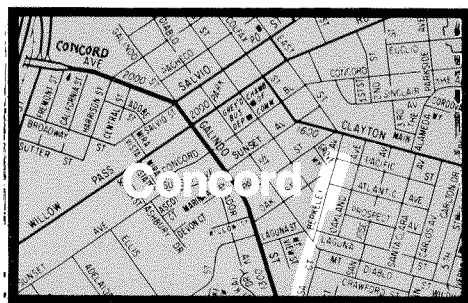
**EL CERRITO DEL NORTE** Cutting Blvd. and Hill St. 2 bks. from Hwy. 80, 1 blk. from San Pablo Ave.  
 • Free parking for 985 automobiles; 36 bike racks available.  
 • Served by the following AC Transit buses: 68, 70, 72B, 72C, 72M, 78.



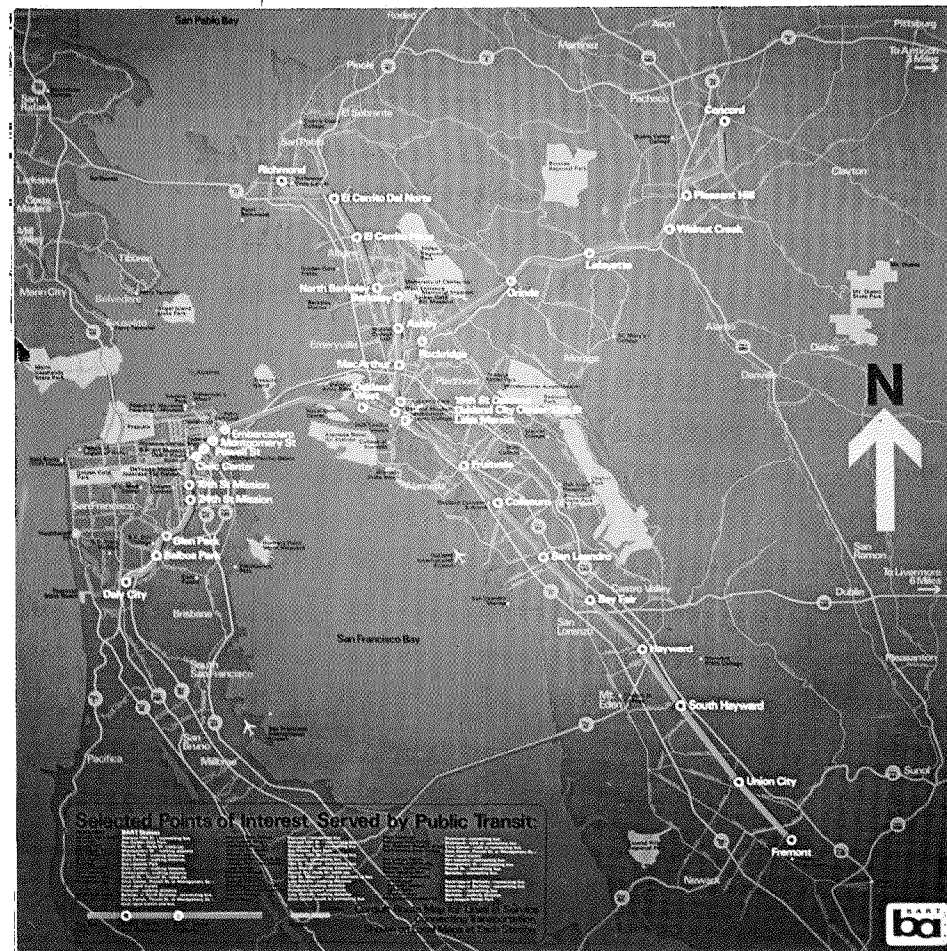
**RICHMOND** Nevin Ave.; between 16th, 18th Sts. and Macdonald Ave.  
 • Free parking for 783 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: 68, 69, 72, 78.



**PLEASANT HILL** Geary Rd. and Del Hombre Ln.  
 • Free parking for 1,337 automobiles; 20 bike racks available.

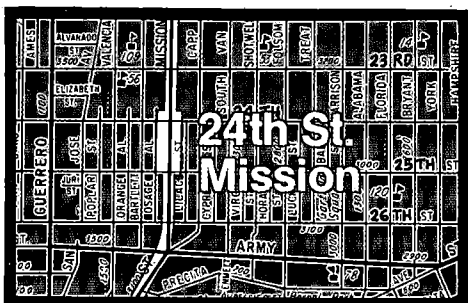
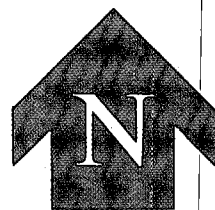
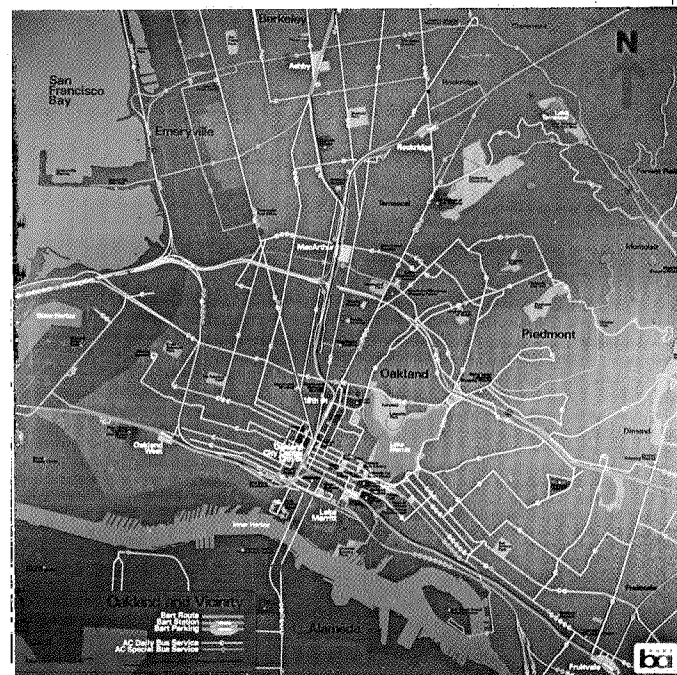


**CONCORD** Atlantic and Oakland Aves.  
 • Free parking for 1,059 automobiles; 20 bike racks available.

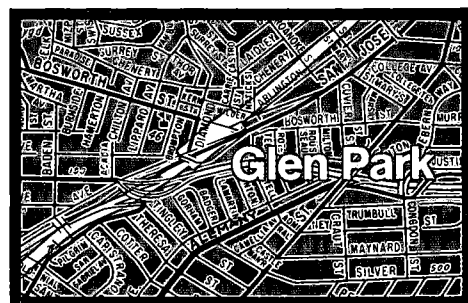


**REFERENCE MAPS**

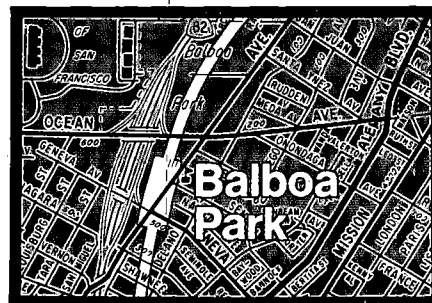
Each BART Station displays several of these large Points-of-Interest maps covering the entire Bay Area. The locations of over 40 of the more popular Bay Area attractions are shown in relation to the BART System. Also prominently displayed are large scale Local Area maps which cover the area around the station.



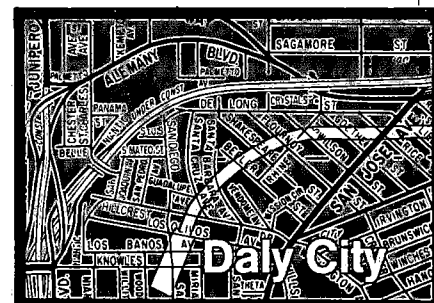
**24TH ST. MISSION** Mission and 24th Sts.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



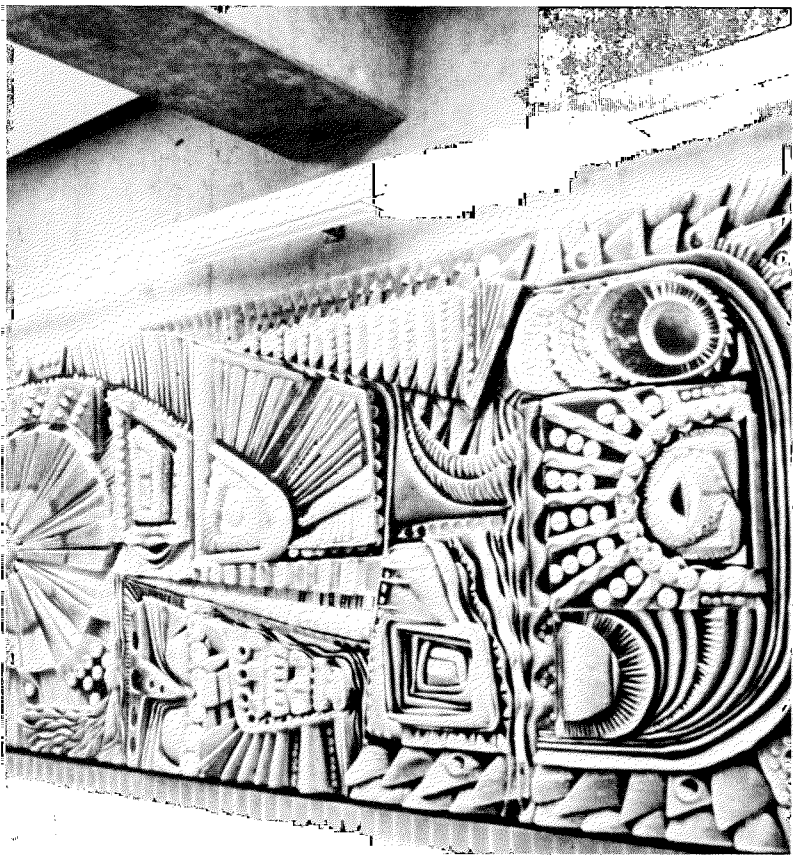
**GLEN PARK** Diamond and Bosworth Sts., near San Jose Ave.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



**BALBOA PARK** Geneva and Ocean Aves. at Tara St. One block from Balboa Park; direct access to Hwy. 280.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



**DALY CITY** Knowles Ave. between Niantic and San Diego Aves.  
 • Free parking for 785 automobiles; 20 bike racks available.



# Look what has

Subways or Rapid Transit have been around for a long time. London opened its first Underground stations in 1863. And New York's first stations on the old IRT line were opened to the public in the summer of '04.

Long years of service (and lack of funds) have taken their toll on what were once efficient, although perhaps austere, stations. As a result, many people have an image of the typical 'subway' station as an ugly place with dingy masses of concrete and narrow, drafty corridors.

But architecture has come a long way in the past hundred years. Today, public building has to be not only functional, but beautiful as well. And, as far as BART's planners were concerned, there was another very important aspect that had to be borne in mind. Each of

BART's 34 stations was, in effect, a Johnny-come-lately to the community. People had established a way of living they felt comfortable with and might, understandably, look upon the arrival of BART as an interruption to the accepted 'pattern' of their community. So BART's 14 subway and 20 aerial stations were specifically designed to fit in with their surroundings.

Variety and a healthy sense of competitiveness were achieved by appointing sixteen different architectural firms, eight landscape architects and several graphic designers and artists.

Wherever possible stations have been kept spacious and open to allow natural light to reach concourse and track levels. The result is a variety of skylights, glass walls, and



# happened to the 'subway' station.

sunken plazas. In Berkeley's Ashby Station, even the parking lot has been lowered so that the sun can light the mezzanine and platforms.

In downtown areas of Oakland and San Francisco, the stations are simple, efficient, and businesslike, brightened by large areas of color. In contrast, stations like North Berkeley, with its domed roof and skylight, or El Cerrito Plaza, with its rich earth coloring, have a more relaxed, residential air.

From the brick plaza at Lake Merritt Station in Oakland, you can look down onto an airy fountain with pool and ferns. This garden-like area is surrounded by a concrete wall sculptured with birds and fish. Behind this 200 foot mural is BART's computer control center—the artist thoughtfully leaving peepholes so passers-by can see what makes the entire system tick.

In all, fifteen stations contain works of art specifically commissioned for them. MacArthur Station's mezzanine is brightened by colored mosaics. Two townscapes decorate Union City Station. In San Francisco, the Mission Street Stations are enhanced by giant concrete bas reliefs in an Aztec motif and brightly colored tile.

Historically, overhead stations and their tracks have often blighted the areas they pass

over. But BART's architects, with the help of a \$400,000 federal grant, found ways to actually improve these areas. Beneath 2.7 miles of track in Albany and El Cerrito, there are now 'linear parks'; green lawns, pine trees and flowering shrubs—even a shuffleboard court and a tot lot.

Of course, there's a lot more to BART stations than meets the eye. You can move from one level to another by stairs or escalator and, for the handicapped, there are special elevators set apart from the main rush of passengers. And, for your convenience, there are telephones, vending machines with candy, coffee, soft drinks and cigarettes. Also storage lockers and newspaper stands.

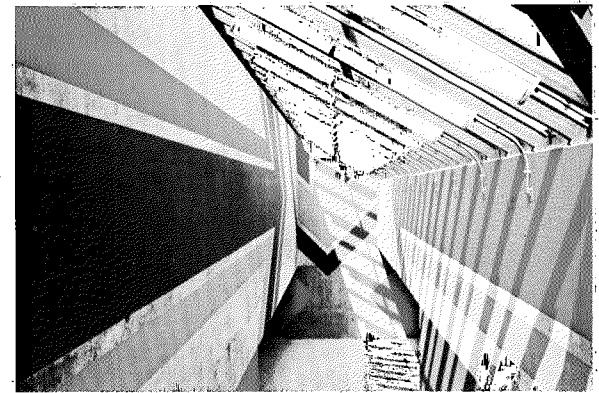
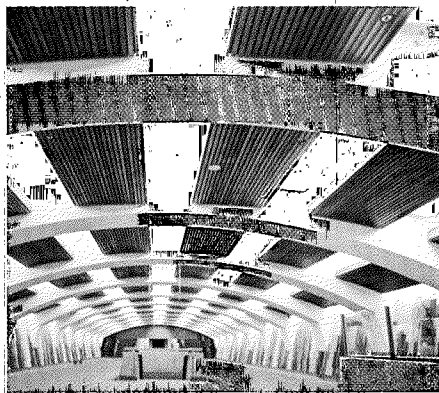
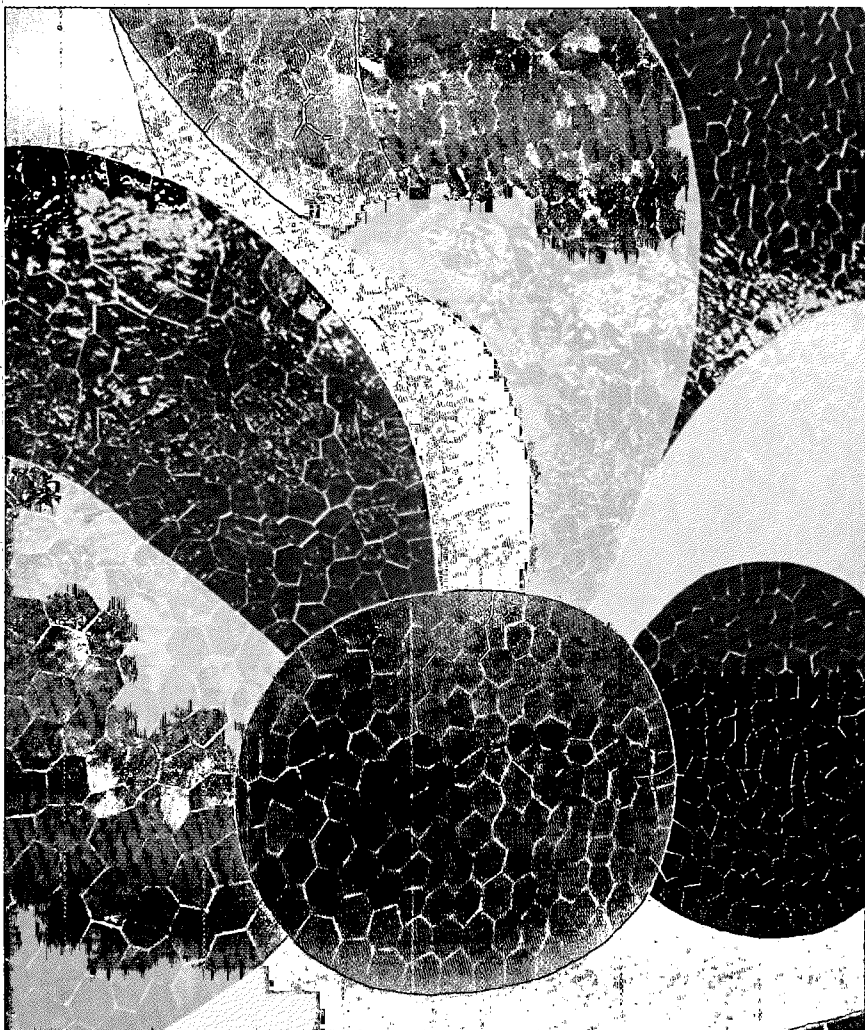
We have tried very hard to make BART stations a lot more than places to get on and off trains. We hope you agree the effort was worth it.



**TOP LEFT:** *Bas relief in Aztec motif at the Richmond Station.*

**LOWER LEFT:** *The plaza at Lake Merritt Station.*  
**RIGHT:** *Sunlight reaches below ground platforms at Berkeley Station.*

**BELOW LEFT:** *Mosaic mural at MacArthur Station.*  
**CENTER:** *Vaulted roofs at 16th-Mission Station.*  
**RIGHT:** *Super-graphics brighten Coliseum Station.*  
**LOWER RIGHT:** *Map display area and ticket machines at Lake Merritt.*



# Buying your first ticket.

To some people, BART's fare collection machinery seems a little complicated at first, but system testing with every kind of passenger—from young children to 80-year-old grandmothers—indicated all caught on pretty well the second time around.

For those who have not had a chance to ride BART...

*Here's your first time around:*

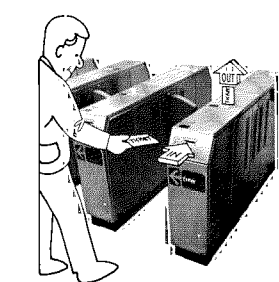
BART fares are graduated: the farther you travel, the more you pay. The procedure is entirely automated, employing a kind of "credit card" ticket that you use to enter and leave the system. You slip your ticket into the entry gate and the machine lets you into the station. As you pass through, the entry gate pops your ticket back to you. It's exactly the same when you leave a station.

That's all there is to the basic idea—but let's start from scratch and imagine you are buying your first BART ticket... As you enter the station you go to a ticket vending machine.

Start giving this machine your money and watch the changing total in the lighted "window" marked *ticket value*. The machine will take anything from a nickel to a five-dollar bill and issue tickets valued anywhere from 30¢ to \$20. The total tells you how much you've put into the machine. When you reach the value you want, press the *Issue New Ticket* button and a new ticket is issued with what you paid stamped right on it. This machine can even take an old ticket, "read" how much value is left on it and credit it towards a new one!

The change machine next to the ticket vender may prove useful if you want to buy a ticket in an exact amount.

Now, with your ticket in hand, go to the entrance gate and insert the ticket in the slot. In 8/10ths of a second, your ticket pops up. Lift it out, and the orange gate slides open. You're in!



You can also pass through the entry gate with coins. There is a coin slot which will take the minimum fare of 30¢. The entry gate issues tickets good for BART's minimum ride as you pass through. This ticket does not have "30 cents" stamped on it, but don't worry, BART's machines will know what it's worth.

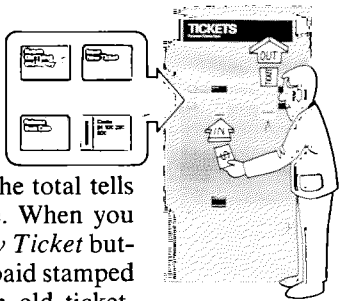
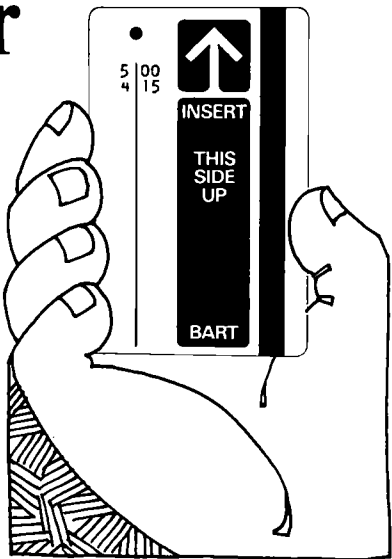
At the end of your ride the procedure is the same. You give the exit gate your ticket. Provided it has enough value on it to cover your trip, the machine will automatically deduct the correct fare and, if value remains on the ticket, return it to you as it opens the gate.

But let's say your ticket has insufficient value: it reads 30¢ and your trip cost 65¢. In this case, the exit gates will not open. Your ticket will be returned, and a little sign on the gate will flash "Ticket Underpaid—Go to Addfare." In this case, you simply pick up the ticket and step over to an "Addfare" machine. Insert the ticket and a lighted panel will tell you how much money you need to add to the ticket to get out. (A change machine next door is there to help you make the necessary adjustments.) When the window marked "Additional Fare Required" reads zero, the Addfare machine will flash: "Good for Exit." You go back to the exit gate and, this time, the ticket lets you through.

This has taken a lot longer to explain, in words and pictures, than it takes in practice. But, should a passenger—at any time—think the machines have got the better of him, the *Station Agent* in the Information Booth by the machines will sort it out. That's what he's there for.

One thing to remember is that BART's machines "think" with magnetic tape. The ticket's brown stripe is encoded with all the value, entry, exit and timing information. Rough handling or exposure to a magnet could destroy its usefulness. It's just like money, so keep it in a safe place.

People often ask why BART needed all this space-age machinery? The answer is simple. Speed and convenience. From the outset, BART's planners and engineers knew that for people to switch from their cars to rapid transit the whole experience had to be easy and enjoyable. And that definitely includes how easy it is getting into and out of the stations.



# Getting there is

When they set out for their Saturday sailing lesson at Lake Merritt, Nick and Bob Wilson decided it was a good opportunity to take their



The boys follow BART's blue and white 'pathfinder' signs down Decoto Road right up to the Union City station...



...and leave their bikes in the rack by the entrance. (You can't take bikes on BART trains.)



The tickets go in and the orange panels slide back before you can say "Open Sesame." Now for the trains!



A quick look to check they're headed for the right platform,



and they're up the stairs two at a time...



just in time to make the Richmond train.



At the Lake Merritt Station, Bob checks the local map to see if the lake is close enough to walk to. (It is.)



They get out of the station the same way they got in—except that these exit gates deduct the fare for the ride.

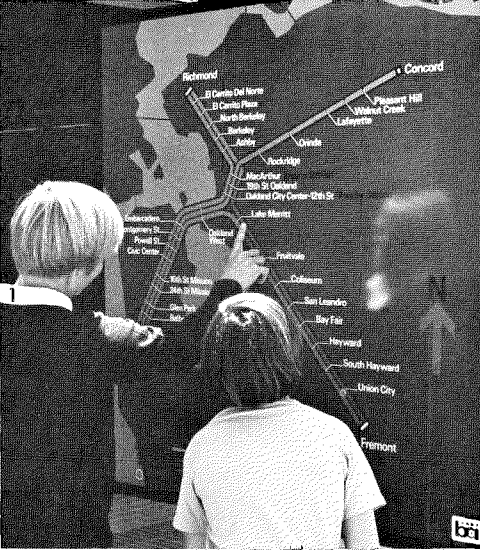


A peek through the wall at BART's Lake Merritt computer center which makes the entire system run....



# half the fun.

first ride on BART. We sent a photographer along to snap what happened.

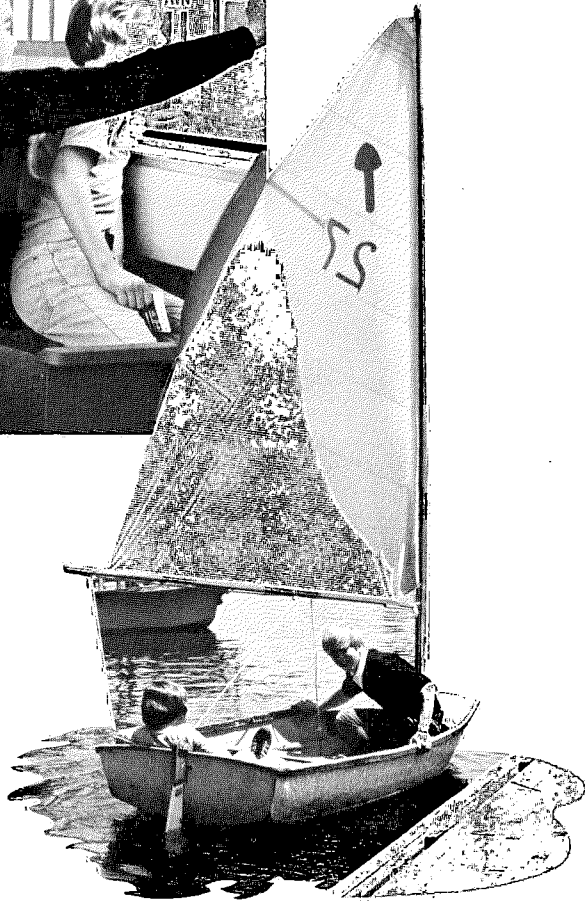


Outside the station they do what everyone does first time out—they figure out where they're going and what station to get off at. Several of these large scale Route maps are displayed at every BART station.

Bob puts a dollar, two quarters and two dimes in the ticket machine, presses the magic button and out pops his round-trip ticket. (Since Nick is not yet 13 his dad has already bought his special red discount ticket at a local bank.)



During their 20 mile, 22 minute trip to Lake Merritt, Bob and Nick get a chance to see several stations.



and they're off... and sailing!

## You'll be seeing a lot of these BART people:

**BART Train Attendants** are up front of every train. Their responsibility is overseeing the operation of the BART cars and making inter-com announcements of train destinations and other information.

**Line Operations Supervisors** are in charge of Train Attendants and Station Agents as well as the trains. It's their responsibility to keep things running smoothly.

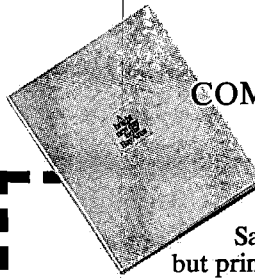
Every BART station will have at least one **Station Agent**. He serves as the 'manager' of that location. He's there to advise, inform and assist, either personally or when you call him on the white courtesy telephones placed throughout each station.

BART has its own **Security** people regularly patrolling stations, trains and parking areas.

Look for our **BART Passenger Representatives**. They are mobile extensions of our Station Agents, acting as special service assistants.



A limited number of this **COMMEMORATIVE PUBLICATION** is available in deluxe edition.



Same size and content as this rotogravure supplement, but printed on high quality glossy paper. Hard bound cover in blue and silver. A collector's item.

Each copy \$7.50. Postage and tax included. Mail to: BART Passenger Services, 800 Madison Street, Oakland, California 94607.

Please send me \_\_\_\_\_ copies of the deluxe edition of BART's Commemorative Publication at \$7.50 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

I enclose \$ \_\_\_\_\_

City \_\_\_\_\_ Zip \_\_\_\_\_

# PRESIDENT'S MESSAGE

by George M. Silliman, President, Board of Directors, Bay Area Rapid Transit District

As one of the two current BART directors with 15 years of service on the Board, I have watched the BART system emerge from the tenuous dreams of its inception to the people-carrying reality of today.

The final product didn't come quickly, cheaply or easily but, as the pages of this publication indicate and a ride will confirm, the BART system is one of the best investments made by the people of the Bay Area.

It is an investment that achieves the immediate goal of providing a most efficient transportation service to millions of people and a giant step towards the achievement of the long range goal of providing an instrument for coordinated urban planning for the entire Bay Area.

The BART system is the nucleus of a transportation system that will eventually serve all 9 Bay Area Counties. With only a 28 mile segment of the 75 mile system in operation, expansion is already on the drawing boards. Under actual study are rail transit links to both San Francisco and Oakland airports; the Antioch-Pittsburg area of eastern Contra Costa County; the Livermore-Pleasanton region of southeastern Alameda County; and the northwest segment of San Francisco.



George M. Silliman, Alameda County

Federal funding is easier to come by today than it was in BART's pioneering days in the 1950's and 1960's, making earlier starts on our extensions much more attainable.

A 300 mile rapid transit system embracing all nine Bay Area Counties will not happen overnight, nor be without its problems, but it is much closer to reality than ever before. It may sound like an optimist's dream, but then, so did a 75 mile system back in 1962. I am convinced that such a dream can be fulfilled and know my conviction is shared by current and former board members, who have given their time and talent in guiding this project.

Those former board members are:

Mr. Frank N. Alioto, Mr. Richard A. Bancroft, Mr. Newell B. Case, Mr. Thomas F. Casey, Jr., Mr. Allen E. Charles, Mr. Felix Chialvo, Mr. H. L. Cummings, Mr. Arthur J. Dolan, Jr., Mr. Adrien J. Falk, Mr. William S. Godfrey, Mr. Garland D. Graves, Mr. Thomas Gray, Mr. Stanley T. Grydyk, Mr. Robert Higgins, Mr. John C. Houlihan, Mr. Wallace J. S. Johnson, Mr. Marvin A. Joseph, Mr. Roger D. Lapham, Jr., Mr. Clair W. MacLeod, Mr. Harry L. Morrison, Jr., Mr. J. Joseph Sullivan and Mr. Sherwood Swan.

## DIRECTORS

### ALAMEDA COUNTY



Arnold C. Anderson  
Past President



Richard O. Clark

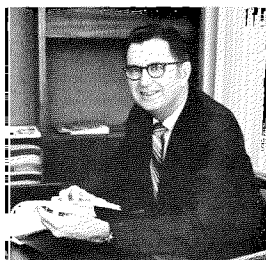


H. R. Lange

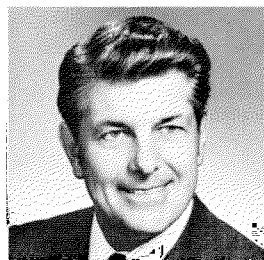
### CONTRA COSTA COUNTY



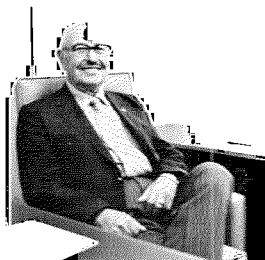
Nello J. Bianco



James P. Doherty  
Past President



Daniel C. Helix



Joseph S. Silva

### SAN FRANCISCO COUNTY



William H. Chester,  
Vice President



William C. Blake



Thomas F. Hayes



William M. Reedy  
Past President

# The corporate team that brought BART into being

The assignment that was handed to BART's engineering consultants some 20 years ago was direct and simple: "Produce the world's best mass transportation system for the people of the San Francisco Bay Area."

To deliver this, no one engineering firm could carry the full load. So three outstanding firms formed the joint venture of Parsons Brinckerhoff-Tudor-Bechtel and undertook the job of designing, engineering and management of the construction of the entire BART system.

PBTB did its job by recruiting the greatest engineering design team that ever has been assembled. BART's requirements over the years occupied a corps of thousands of civil, structural, mechanical and electrical engineers, as well as essential specialists such as supervising architects who coordinated the work of planning 34 community-oriented stations.

Obviously, planning for people has to be done by people, so perhaps you would like to know that PBTB's Board of Control is composed of John P. Buehler, of Bechtel Corporation; Walter S. Douglas of Parsons, Brinckerhoff, Quade & Douglas; and Louis W. Riggs of Tudor Engineering Company. Their project director in charge of the BART job is W. A. Bugge.

Bechtel is one of the world's leading engineering firms, operating in 38 countries from its San Francisco base. Its staff of about 6,000 engineers designs and builds hydroelectric, fossil fuel and nuclear power projects, mining developments, refinery and pipeline projects and mass transportation systems. The company is highly experienced in designing and building service facilities for people. It was Bechtel's expertise in automation and large-scale electric projects that established the criteria for BART's automatic train control and \$55 million electric power system.

Parsons, Brinckerhoff, Quade & Douglas, based in New York, is outstanding in transportation planning. Founded by General William Parsons, the designer and builder of the first New York subways and a consultant on the London subway, the firm was the logical choice to perform the original feasibility study on BART. This led to formation of the joint venture and the assignment to design and supervise the building of the system. The company's record includes such accomplishments as the planning and design of 4,000 miles of highways, 1,300 bridges, and mass transportation systems in ten cities.

San Francisco's Tudor Engineering Company is widely known for transportation planning and engineering, including highways, bridges, port facilities and mass transit. Tudor's engineers also have completed transportation studies in Alaska, Hawaii, Contra Costa and Marin Counties and Seattle in the United States, as well as in Latin America.

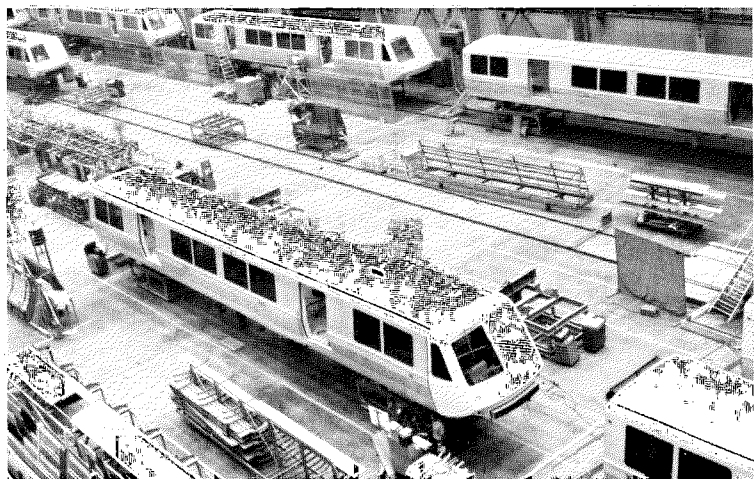
These three firms had a reservoir of capability to run a railroad right-of-way through tubes under the bay, to tunnel the Berkeley Hills, to provide BART customers with a new kind of high-speed, quiet, comfortable train, operating over 75 miles of line, stopping at 34 convenient stations, self served by a space-age ticket vending system, and with the innovation of an automatic electronic train control system. All this with the overriding requirements of safety and reliability.

Having delivered on BART, PBTB's people are now in demand in other cities. In Atlanta, they are planning a \$1.3 billion rapid transit system. In St. Louis, they have completed a study for an integrated train and bus system. In Caracas, Venezuela, they have just finished plans for a \$700-million transit network.

But BART is the favorite of PBTB's staff. Some of them have been working on it almost 20 years! They have had a long, close involvement with this people-oriented project that crossed so many new frontiers of technology. In more ways than one, it was the job of a lifetime.

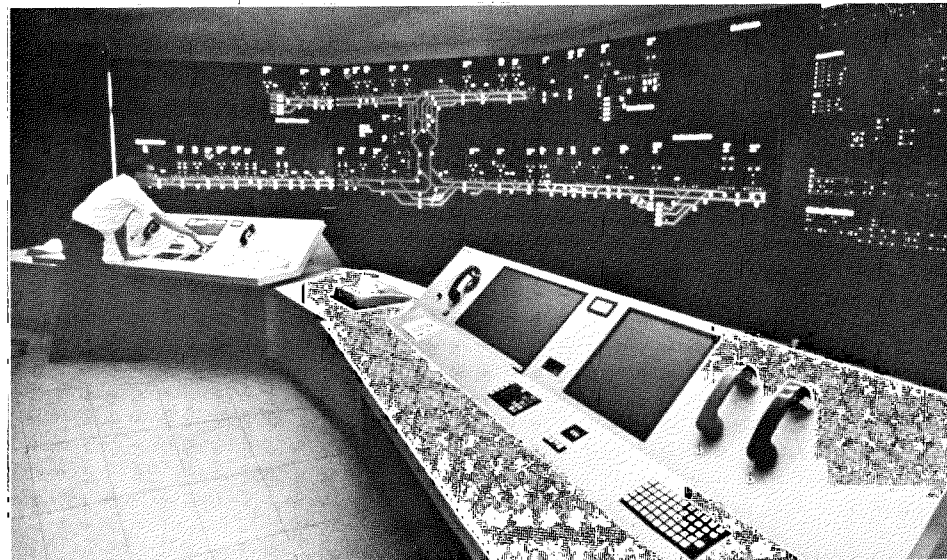
# These firms, working with BART, helped finance the production of this book

## Rohr Industries builds the BART car.



Rohr Industries also builds rapid transit cars for Washington, D.C.; provides half the nation's city transit buses; builds the Monocab people mover that was the hit of Transpo '72; is developing the Aerotrain air cushion vehicle, the ROMAG magnetic vehicle, and is engaged in a wide range of research projects for transportation of the future.

**ROHR** — helping engineer a better tomorrow



## Westinghouse equipment and systems are working at BART

Westinghouse Electric played a big part in making BART a reality.

BART is a showcase of modern mass transit. Westinghouse supplied the automatic train control, the advanced propulsion equipment, as well as air conditioning and computers. In addition, we supplied car testing equipment, escalators, elevators, and lighting equipment.

Westinghouse is also playing a key role in other transit systems such as New York City; Washington, D.C.; Sao Paulo, Brazil; and both Seattle-Tacoma and Tampa International Airports.

You can be sure...if it's Westinghouse



## BART and IBM

BART is a major step forward for a progressive American city striving to meet the needs of its people and to improve the quality of urban life — IBM takes pride in its contribution to that achievement through its development of BART's automatic fare collection system.

IBM is working to meet man's needs on many fronts — helping to speed the mail, to fight pollution, to improve the administration of justice, to enhance the safety of travel in our nation's skies.



Gallagher & Burk

Kaiser Industries

McGuire & Hester

Midland Industrial Electric Co.

Morrison-Knudsen Co., Inc.

Newbery Electric Corp.

Perini Corp.

Winston-Drake-Early

**Boss Group Companies** offer complete uniform and career apparel services including designs, manufacture, sales and rental, plus complete system support that includes individual deliveries and a comprehensive control program to assist clients with cost analysis.

Proud to be associated with BART's innovative transportation system, several Boss Group Companies have worked to develop BART's unique career apparel.

**Christensen & Foster**, a Santa Rosa general building contracting firm, is proud to have played a part in the construction of the world's most modern transit system.

In 14 years of incorporation, Christensen & Foster has successfully completed more than 700 individual contracts over the width and breadth of Northern California for all manner of clients, including private corporations, public utilities, city, county, state and federal government jurisdictions, and all branches of the armed forces.

Completed and presently active BART contracts include station finishes at the MacArthur, Berkeley and Civic Center

**Peter Kiewit Sons' Co.** has performed virtually all types of construction in its 88-year history.

Following extensive defense construction during World War II, the company resumed its operation in building and highway work, and also expanded the nature of its heavy engineering construction to include marine, mining and tunneling operations.

Headquartered in Omaha, Nebraska, it is now one of the nation's larger construction organizations with district and area offices located coast to coast (including Alaska) and

**Homer J. Olsen, Inc.** has constructed West Coast projects from Southern California to the State of Washington with expertise in the management and engineered construction of unusual and complicated jobs. These include airports, highways, bridges, environmental protection projects and portions of the Bay Area Rapid Transit system.

The Olsen organization has been involved, either singly or in joint venture with other heavy construction contrac-

**Sundberg-Ferar**, industrial designers of Southfield, Michigan, was responsible for two of the most significant design elements of the BART system — the BART car and BART logo symbol.

Sundberg-Ferar's car design achieves the prime objective of providing the transit passenger with luxurious, comfortable surroundings and its logo design is a strong symbol which will immediately identify station locations, trains and

The Commercial Uniform Division of Los Angeles has created all the BART apparel; the Boss Rental Service Division of San Leandro will provide BART with a complete uniform leasing program.

Designed for quality and comfort, the distinctive BART uniforms will speak "pride and performance" for the men and women who wear them.

Stations, platform finishes at 16 stations on the East Bay Lines, and construction of San Francisco's Hallidie Plaza.

It is Christensen & Foster's policy to undertake quality construction in a timely and efficient manner through the media of aggressive management and the melding of their own personnel with that of subcontractors' and materials suppliers'.

Christensen & Foster looks forward to many more years of aggressive and satisfying endeavor in the building construction field in Northern California.

from Vancouver, British Columbia to Montreal, Canada.

Its work on BART has included heading the joint venture construction of the transbay tube, twin compressed air tunnels beneath San Francisco's Mission Street, the twin-tunnel Diamond Street subway, and the Glen Park, Van Ness and Civic Center Stations. Its Castcon Division has manufactured and/or installed approximately 25 miles of pre-cast, pre-stressed concrete double track girders for the aerial portion of the BART system.

Its work on BART has included heading the joint venture construction of the transbay tube, twin compressed air tunnels beneath San Francisco's Mission Street, the twin-tunnel Diamond Street subway, and the Glen Park, Van Ness and Civic Center Stations. Its Castcon Division has manufactured and/or installed approximately 25 miles of pre-cast, pre-stressed concrete double track girders for the aerial portion of the BART system.

It has been an honor to be part of such a significant project.

all BART literature. Both have become trend setters and goals for other transit agencies to strive for.

Since completion of the BART design, Sundberg-Ferar has designed and built prototypes of fifteen transit vehicles for other major cities in the country including New York, Long Island, Washington, D.C., Chicago, Baltimore, Las Vegas and the Boeing State-of-the-Art Car for the United States Department of Transportation.

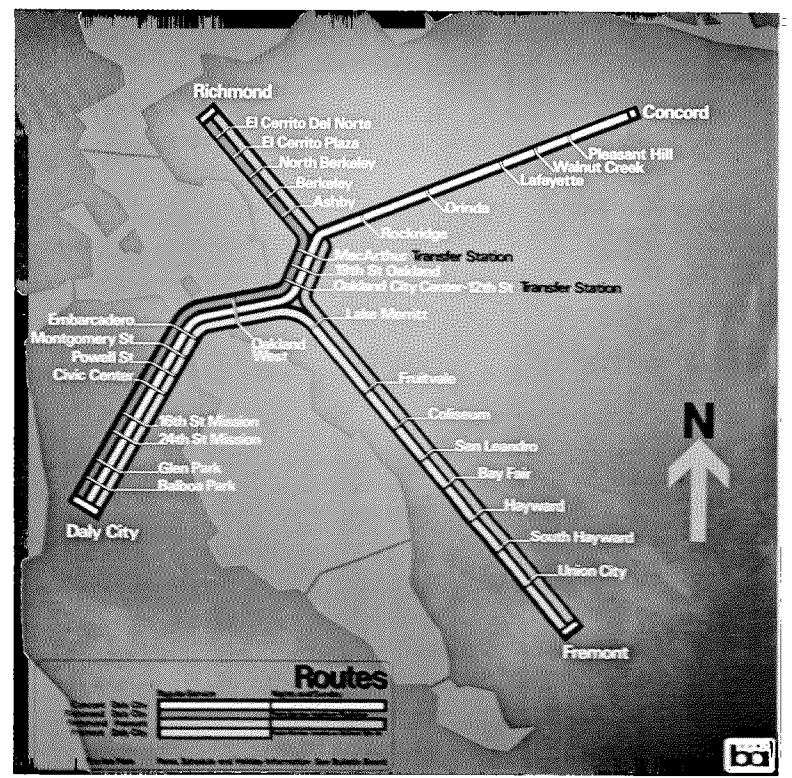
# How to make sure you get on the right train.

As you can see from this station route map there are four BART routes with four destination cities: Richmond, Concord, Fremont and Daly City. Every BART train heads for one of these end-of-route destinations. Look up the station you are going to on the route map (there are several at every station) and remember on which of these routes it's located.

Just check for the right destination on the sign over the stairways or escalators leading to the station platforms. There are electronic signs along the platforms too, which indicate which of the four routes is being served, so it is pretty difficult to go out of your way. But should you find yourself at the wrong destination, one of

BART's Station Agents will be happy to put you back on the right track.

At this time there is weekday service only (6 a.m. to 8 p.m.) from Fremont to MacArthur station. When BART's full 75-mile system is completed, the following schedule will be in operation: during daytime hours, Monday through Saturday, there will be direct service on all routes. Concord travelers going to Richmond or Fremont have to change trains at MacArthur or Oakland City Center—12th Street. At night (after 10 p.m.) and on Sundays, passengers traveling between San Francisco and destinations on the Richmond or Fremont routes will also have to change trains. All transfers are made in the East Bay, at either MacArthur or Oakland City Center—12th Street. The precise times of first trains in the morning and last trains at night will vary slightly according to station, but when everything is running as planned, service will start at 5 a.m. and end at 1 a.m.



# What the ride will cost and how long it will take.

## TIME

(Example: Oakland City Center—12th St. to Hayward—18 minutes.)

## FARE (Example: Oakland City Center—12th St. to Hayward—60¢.)

Concord	5	7	11	16	21	41	38	36	33	31	29	60	56	52	48	45	42	38	36	32	28	26	27	30	50	47	45	43	41	39	38	37	35		
Pleasant Hill	2	6	11	16	36	33	31	28	26	24	55	51	47	43	40	37	33	31	27	18	21	22	25	45	42	40	38	36	34	33	32	31			
Walnut Creek	4	9	14	34	31	29	26	24	22	53	49	45	41	37	34	31	27	25	21	12	15	16	19	39	36	34	32	30	28	27	26	25			
Lafayette	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	22	42	39	37	35	33	31	30	29	28	27	26	25	
Orinda	5	10	30	27	25	22	20	18	49	45	41	37	34	31	27	25	21	12	15	16	19	22	42	39	37	35	33	31	30	29	28	27	26	25	
Rockridge	3	5	8	10	12	49	45	41	37	34	31	27	25	21	12	15	16	19	22	42	39	37	35	33	31	30	29	28	27	26	25	24	23		
Richmond	2	5	7	9	46	42	38	34	31	28	24	22	20	16	10	13	14	17	37	34	32	30	28	26	25	24	23	22	21	20	19	18	17	16	
El Cerrito Del Norte	3	5	7	9	46	42	38	34	31	28	24	22	20	16	10	13	14	17	37	34	32	30	28	26	25	24	23	22	21	20	19	18	17	16	
El Cerrito Plaza	2	4	41	37	33	29	26	23	19	17	13	7	10	11	14	34	31	29	27	25	23	21	20	19	18	17	16	15	14	13	12	11	10	9	
North Berkeley	2	39	35	31	27	24	21	17	15	11	5	8	9	12	32	29	27	25	23	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	
Berkeley	37	33	29	25	22	19	15	13	9	3	6	7	10	30	27	25	23	21	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	
Ashby	4	8	12	15	18	22	24	23	34	31	30	33	53	50	43	43	44	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25
Fremont	4	8	11	14	18	20	24	30	27	26	29	49	46	44	42	40	38	36	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18
Union City	4	7	10	14	16	20	26	23	22	25	45	42	40	38	36	34	32	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
South Hayward	3	6	10	12	16	22	19	18	21	41	38	36	34	32	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10
Hayward	3	7	9	13	19	16	15	18	38	35	33	31	29	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6
Bayfair	4	6	10	16	13	12	15	35	32	30	28	26	24	22	20	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	0
San Leandro	2	6	12	9	8	11	31	28	26	24	22	20	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	0	0	0	0
Coliseum	4	10	7	6	9	29	26	24	22	20	18	16	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	0	0	0	0	0	0	0	0
Fruitvale	6	3	2	5	25	22	20	18	16	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0
Lake Merritt	3	4	7	27	24	22	20	18	16	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0
MacArthur	1	4	24	21	19	17	15	13	12	11	10	9	8	7	6	5	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19th St Oakland	3	23	20	18	16	14	12	11	10	9	8	7	6	5	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oakland City Center—12th St	20	17	15	13	11	9	8	7	6	5	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oakland West	3	5	7	9	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Daly City	2	4	6	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Balboa Park	2	4	6	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Glen Park	2	4	6	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
24th St Mission	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
16th St Mission	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Civic Center	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Powell	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Montgomery	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Embarcadero	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35

### SPECIAL FARES

Children 12 and under and senior citizens 65 and over may ride BART at one-fourth the full fare on a special red ticket. These red tickets must be purchased at banks participating in BART's neighborhood ticket sales program and are not available from the regular vending machines in BART stations.

The cost of special red tickets is \$2.50 (good for \$10.00 worth of rides). BART's regular fare tickets may also be purchased at local banks in values of \$10 and \$20.

### BUS TRANSFER

BART passengers can pick up a free, one-zone bus transfer upon leaving East Bay stations served by AC Transit.

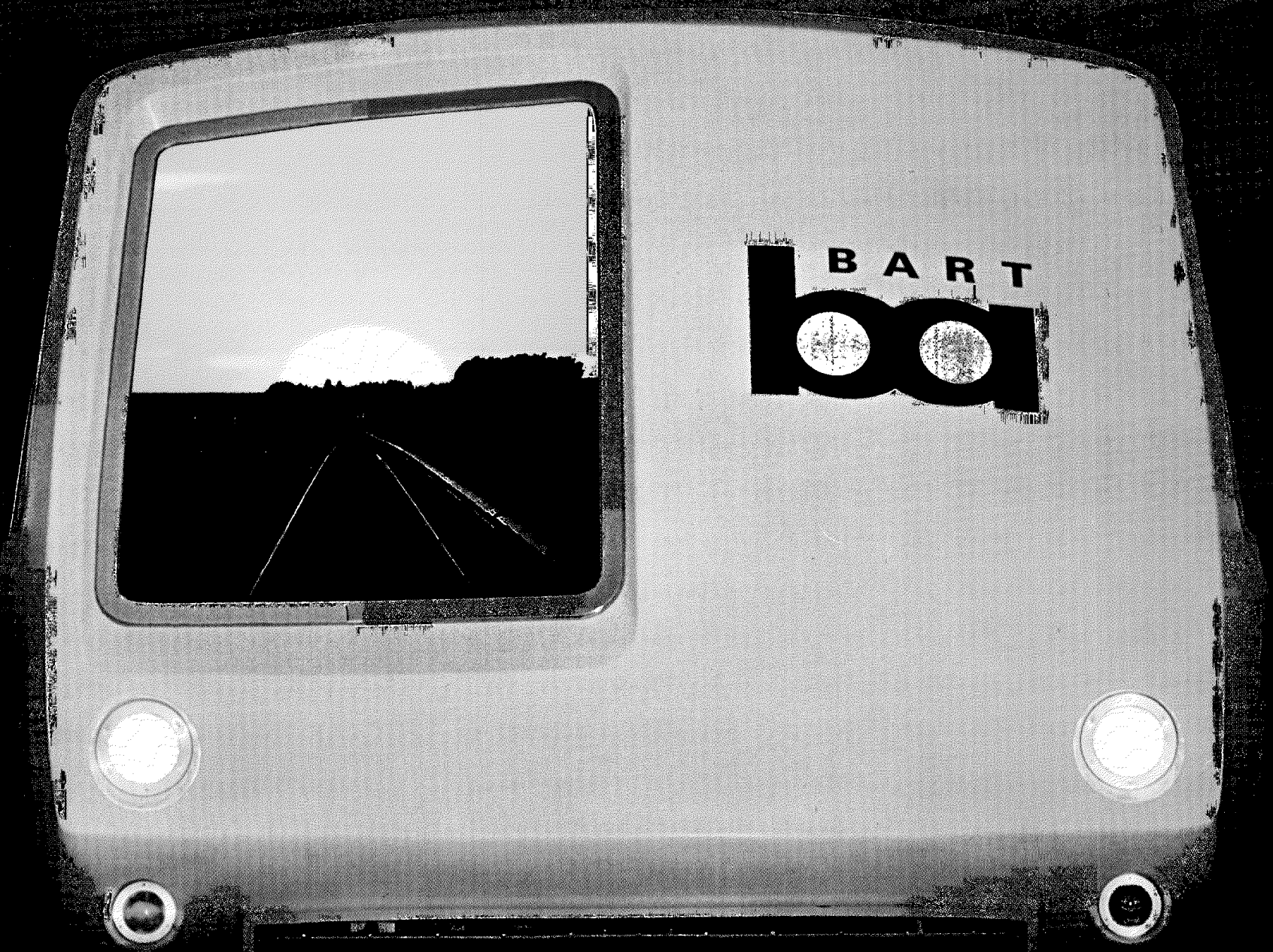
This transfer is dispensed from the white bus transfer machine located in each station's paid area.

### ROUND TRIP RIDES

You can take rides of up to 3 hours on BART for 60¢, regardless of the distance you travel. But you must begin and end your trip at the same station.

**A  
bright  
new day  
for the  
Bay Area**

# BART



**A bright new day for the Bay Area**

**Published by Bay Area Rapid Transit District, 800 Madison, Oakland 94607**

An advertising supplement to: San Francisco Examiner & Chronicle, Oakland Tribune, Alameda Times Star, Hayward Daily Review, Fremont-Newark Argus, Livermore Herald News, Concord Transcript, Contra Costa Times, Richmond Independent, Berkeley Daily Gazette.

# We finally made it... Thanks for waiting!

It's been a long time coming, but now BART's off-and-running. It's running because the taxpayers of San Francisco, Alameda and Contra Costa Counties had the foresight to approve a \$792 million bond issue in 1962. It's running because of the individual city and county staff members who worked so hard to make it happen. And it's running because of the city and county, state and federal leaders who helped us overcome so many unforeseen hurdles. All deserve a sincere "thank you".

## Birth and Growth

The last ten years have been a period of well-publicized hurdles and highlights. But BART really began back in 1951 with the formation of the nine county San Francisco Bay Area Rapid Transit Commission. The commission was assigned the task of making a comprehensive study of the Bay Area's transit needs. Parsons-Brinckerhoff—the "PB" of PBTB, our consulting engineers—made the feasibility study. Its recommendations resulted in the state legislature's creation of a five-county rapid transit "District." The District's job was to develop a workable plan for a high speed, rapid transit system and, upon voter approval, construct and operate it. Nicknamed "BART," it burst upon the scene in 1957, full of enthusiasm — and a staff of eleven.

The first order of business was to tell the public what we were planning and what progress we were making. Some of the early hands made as many as five speeches a night to any homeowner's group or service club that would listen. One information officer traveled from San Francisco to Half Moon Bay, and gave his presentation solely to the janitor who opened the school auditorium.



by B. R. Stokes,  
General Manager

## From Five Counties to Three

In the Spring of 1962, Marin and San Mateo Counties withdrew from the proposed district. But Alameda, San Francisco, and finally, Contra Costa stood firm. The measure was placed on the November 6 ballot. We needed 60 percent approval of a measure that asked the voters to build and operate a three-county, 75-mile rapid transit system, and to tax themselves to the tune of \$792 million. On November 7 late returns pushed the "yes" vote over the 60 percent mark. The final margin was 61.2 percent, a paper-thin edge, but then no other local public works project of this magnitude had ever made it on the first ballot.

The ballots had hardly cooled before a taxpayers' suit was filed challenging the legality of the District and its contract with the joint venture engineering firms. Although the District won its case, it was a bittersweet victory for BART: the lengthy trial caused a six-month delay.

In June of 1964, President Lyndon Johnson arrived in Concord with a flotilla of helicopters, blowing dust over some 30,000 people gathered at the site of the Diablo Test Track. The President touched

The Fall of 1965 was not a very bright one for BART. Only two bids came in for the downtown Oakland subway construction. The lowest was \$14 million over our engineers' estimates. So PBTB divided the contract into smaller packages, got more bidders, and eventually brought the project within budget. But this cost us almost a year in construction time.

## Money Headaches

BART's reserves were being eroded by an annual inflation rate of close to 7 percent. Several communities asked for changes in the basic plan, so we relocated 15 of our 34 stations and improved their architecture and landscaping. All to the good of the system, but hard on the treasury.

In August 1966 we received our first Federal construction grant. This eventually amounted to nearly \$200 million in Federal aid for everything from landscaping and car purchases to technical studies on extending the network. Construction on both the Oakland and San Francisco subways began at the end of 1967, and in 1968 BART received a \$28 million grant from the U.S. Department of Transportation to help develop and buy its trains.

## The Siege of Sacramento

While all this was going on, our directors and staff beat a path to Sacramento. They urged legislative relief to make up a fund deficit pegged at \$150 million. Construction had taken almost \$700 million and we faced the prospect of giving the Bay Area the world's first ghost system, rather than the rebirth of mass transportation.

Finally, on April 8, 1969, Governor Reagan signed a law temporarily increasing the sales tax in the three BART counties

from 5 to 5½%. It was a banner day for BART. Two days later the final section of the trans-bay tube was lowered into place. And, in July, we awarded a \$67 million contract for 250 streamlined cars.

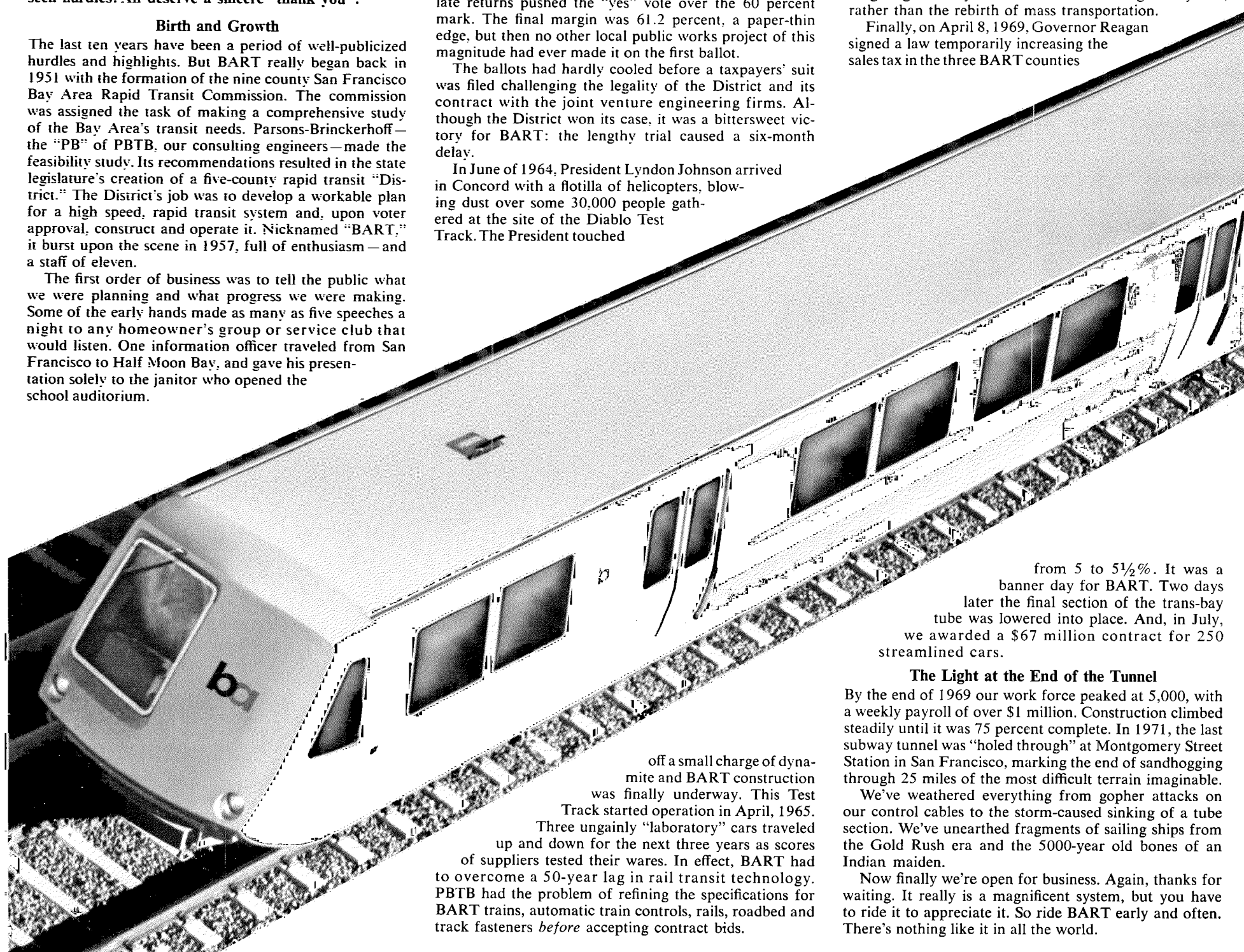
## The Light at the End of the Tunnel

By the end of 1969 our work force peaked at 5,000, with a weekly payroll of over \$1 million. Construction climbed steadily until it was 75 percent complete. In 1971, the last subway tunnel was "holed through" at Montgomery Street Station in San Francisco, marking the end of sandhogging through 25 miles of the most difficult terrain imaginable.

We've weathered everything from gopher attacks on our control cables to the storm-caused sinking of a tube section. We've unearthed fragments of sailing ships from the Gold Rush era and the 5000-year old bones of an Indian maiden.

Now finally we're open for business. Again, thanks for waiting. It really is a magnificent system, but you have to ride it to appreciate it. So ride BART early and often. There's nothing like it in all the world.

off a small charge of dynamite and BART construction was finally underway. This Test Track started operation in April, 1965. Three ungainly "laboratory" cars traveled up and down for the next three years as scores of suppliers tested their wares. In effect, BART had to overcome a 50-year lag in rail transit technology. PBTB had the problem of refining the specifications for BART trains, automatic train controls, rails, roadbed and track fasteners before accepting contract bids.







# “The only thing missing is the clickety-clack”

Engineers, planners, architects and financial experts have invested hundreds of thousands of man-hours and 1.4 billion dollars making BART a reality. But, as far as the Bay Area commuter is concerned, all that is so much water over the dam. What they—and everyone else wants to know is “What’s it like to ride BART?” The only real way to find out, of course, is to buy a ticket and see for yourself. But, since BART is now running on only one of its legs, many people have not yet had the opportunity. So here—in words and pictures—is what to expect:

First, we have tried to make our cars every bit as comfortable as yours. You’ll find wall-to-wall carpet underfoot, extra wide foam padded seats and tinted picture windows that take up almost the whole side of the car. There’s year-round air-conditioning and heating too, and special recessed ceiling lights that ‘focus’ on your newspaper—not on your eyes.

Each car comfortably seats 72 people, with a generous aisle down the center. There are no overhead straps or luggage racks (there’s room for packages beneath each seat) and advertising posters are confined to the areas beside the doors and at the end of each car. You can follow your progress or see where a transfer of trains is necessary on any of the car’s four large route maps.

## What about the ride?

It’s smooth, relatively silent and very fast... top speed 80 mph, 42 mph average *including stops!* But missing, along with the clickety-clack, is the swaying and jiggling you expect on fast-moving trains. BART’s engineers developed their own version of a ‘wide track’ stance to stand up to Bay Area westerlies. Rails are spaced 9½” wider than the world-wide standard 4’8½”. And, to see that the satiny ride is maintained, BART’s entire 75 miles of track can be adjusted in ⅛” increments whenever the slightest wobble is detected.

To make sure the trains run on time, their stops, starts and speed are controlled from BART’s computer center, but every train will have a Train Attendant who can take over manual control should it become necessary. Passengers can communicate with him through an intercom system located at the end of each car.

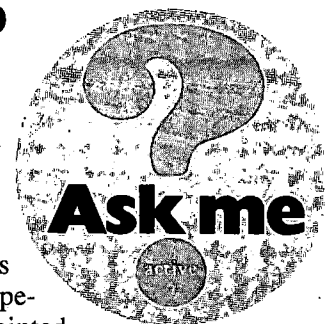
But, the most satisfying part of a BART ride, people tell us, is whisking along next to a bumper-to-bumper Nimitz at 80 miles an hour.

And that, after all, is what BART is all about.





## Got a question?



If you're in a BART station and you want to know which bus goes where—or what time the last train leaves for Fremont—or anything else you think we can help you with, just ask anybody wearing this button. These BART people have been specially trained to help the public get acquainted with the system as smoothly as possible.

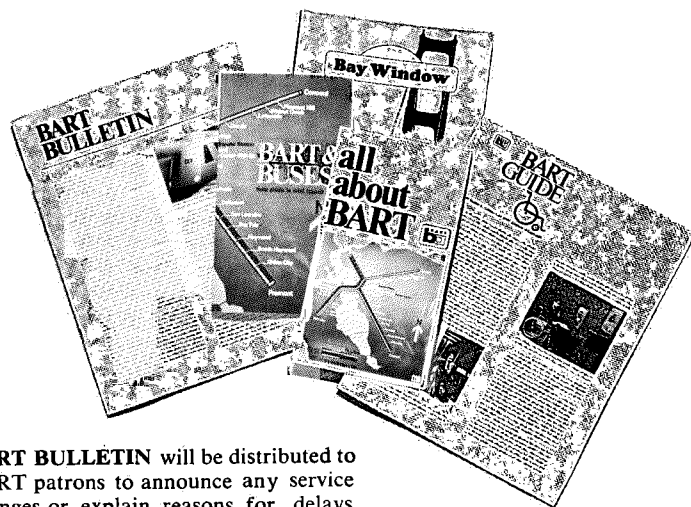
If you are *not* at a station you can get the same kind of help by dialing your area's three number prefix and the four letters B-A-R-T:

Oakland & Berkeley 465-BART Richmond & El Cerrito 236-BART  
 Fremont & Union City 793-BART San Francisco  
 Hayward & San Leandro 783-BART & Daly City 788-BART  
 Walnut Creek, Pleasant Hill & Concord 933-BART

BART's information center operates daily. There are bilingual Spanish and Chinese speaking operators on duty from 8 to 5.

So if you want to get from here to there in the Bay Area and are not sure how to go about it, just ask. We're happy to help.

## BART PUBLICATIONS



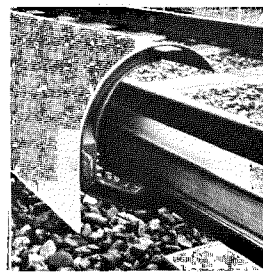
**BART BULLETIN** will be distributed to BART patrons to announce any service changes or explain reasons for delays or other problems.

**BAY WINDOW.** A monthly newsletter for passengers about activities, destinations and events of interest in the Bay Area and how to use BART to enjoy them. To be distributed free in stations.

**BART & BUSES.** A comprehensive map guide to transit travel in the Bay Area. Details coordination of BART routes and bus service, includes schedules of both AC Transit and San Francisco Muni.

**ALL ABOUT BART.** A small folding pamphlet answering most questions about how to use BART. Available in English, Spanish and Chinese editions through BART stations, banks participating in ticket sales, chambers of commerce, hotels, bus depots and the like.

**BART GUIDE.** English and Braille, with information on BART's installations and procedures to aid the handicapped.

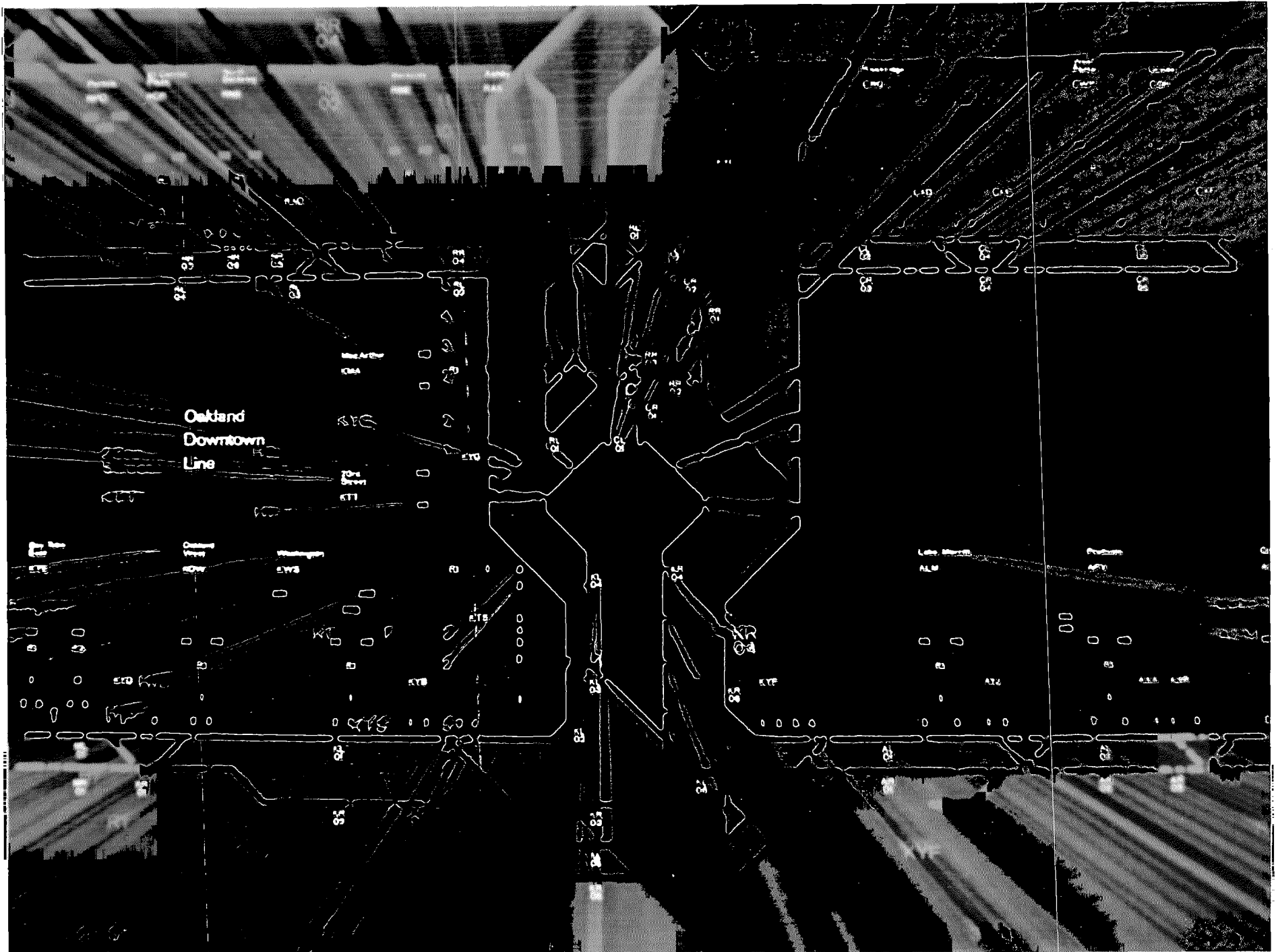


## The 3rd Rail

A word of caution

BART trains run on two rails, with another rail alongside which carries the electric power. This 3rd rail packs 1,000 volts—enough to drive a 700 foot train at 80 mph!

As you've probably noticed, all BART's surface routes are fenced off from the public. For added safety the 3rd rail is partially covered with a protective shield. But you can help make the system even safer by telling your children to stay well away from BART tracks at all times. The 3rd rail doesn't *look* dangerous but it can inflict serious or fatal injury to anyone who touches it.



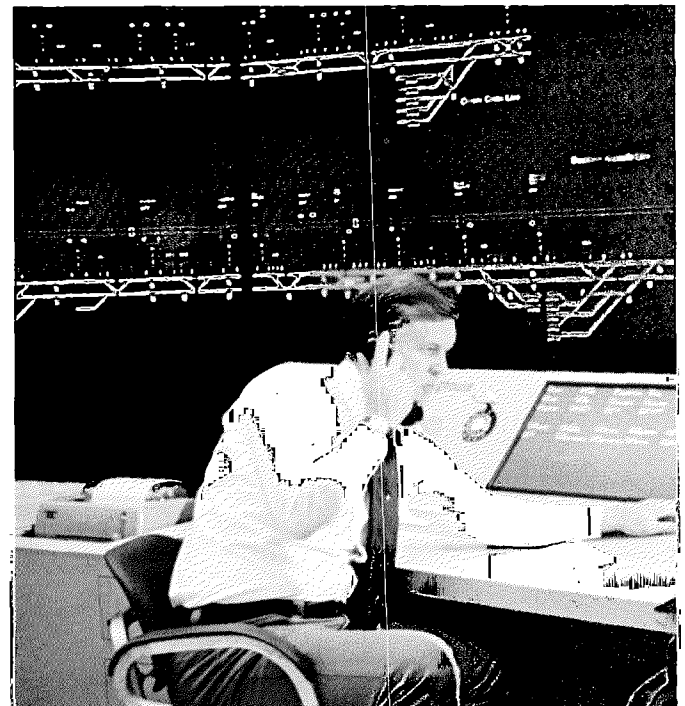
# The Computer and the Commuter

There's one BART first you'll appreciate but probably never see. That's the world's first computer-supervised train control system. Rather than having a lot of trains running on individual schedules, this gets all the BART cars working together. The computer and central supervision constantly adjusts the schedule of each train to maintain an even, efficient spacing.

The system includes a central control complex in BART's Lake Merritt Administration Building, with local control units in the stations, train yards and on the trains themselves, as well as communication links tying them all together. The local units control all the functions relating to safety, such as protective train spacing, speed limitation and locating switches to prevent misroutings.

A giant central computer coordinates the whole system. It cannot override the safety functions of local systems, but can override other decisions, such as the time a train spends in a station, in order to keep everything running at peak efficiency.

Under this system, train acceleration and braking is smooth, safe and completely automatic. The computer determines departure times from yards and stations, and keeps an eye on routings. It requests train speed adjustments and makes other corrections to maintain the best possible service. In all these ways, our computer helps the commuter. By monitoring and supervising the whole network, it cuts operating costs and keeps trains running on an accurate schedule. You might say our computer has helped to bring back good old-fashioned personal service.

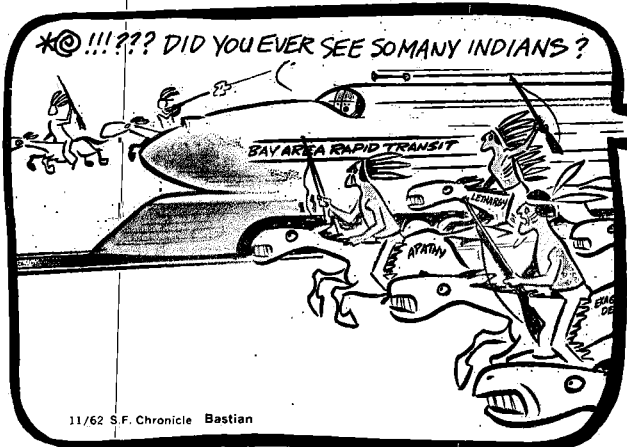


# BART THROUGH THE AGES

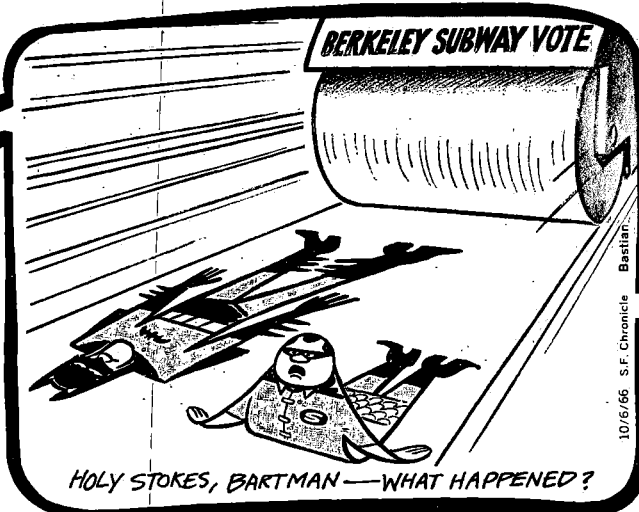
**CRACK!**



... AS SEEN BY BAY AREA CARTOONISTS



Slings and arrows were in goodly supply in November 1962, as supporters and detractors of BART battled down to the wire on the Rapid Transit bond issue. The righteous prevailed, with passage of the bond issue by a paper thin 61.2%.



Berkeley dwellers participated in a vote of their own in 1966, and by a whopping 75% agreed to spend upwards of \$20 million to bury another 3 miles of BART line and two stations. At that time, such additional design and construction loomed as an 18-month delay, a steam-roller, indeed.



San Francisco's Market Street appeared somewhat shell-pocked at Christmas, 1967, at the height of BART subway excavation. Some people must have made it through the barriers and over the boardwalks, however; merchants recorded a 6% increase in sales over the preceding year.



Miniskirts may have been the style in 1967, but thoughts of a mini-BART brought no admiring glances from BART's Board of Directors. Despite the spectre of a \$150 million deficit, the Board rejected trimming the 75-mile system, and agreed not to commence service until all was built as promised in 1962.



The tattered figure shown above was a familiar sight in Sacramento in 1968—and in 1967 and 1969—as BART struggled to get financial relief. Construction had slowed due to lack of funds, and the nightmarish vision of a \$700 million monument to futility was very much with BART.



No mirage this time, cooling fiscal waters poured into the parched BART reservoirs in the form of a half-cent increase in the sales tax of Alameda, Contra Costa and San Francisco Counties. Governor Ronald Reagan signed the measure into law on April 8, 1969, providing BART with the \$150 million needed to complete the project.

"Sir, the 7:37 is precisely three years and six days late"

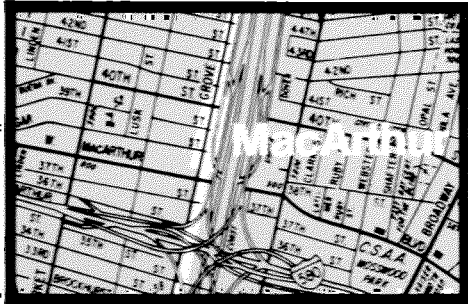


Fund shortages, lawsuits, changes in design, scope and physical amenities of the project—did indeed extend the construction phase of BART, as this Montgomery streeter so frostily points out in 1971. His patience would wear even thinner through the following year, but the end result may tend to thaw him.



BART's obligation to pay its operating costs from the fare box, with no taxing power to share the brunt of such cost, is a departure from the usual public transit practice. Consequently, an aggressive campaign was launched to lufe the traveler out of his car and onto BART's. Beguiling maidens touting rapid transit's message may not be the answer, but the cartoon's "I need the money" approach is right on the money.

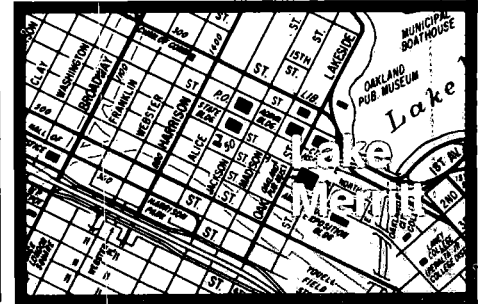
# BART's thirty-four stations



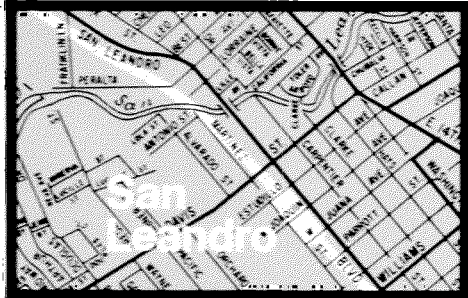
**MACARTHUR** 40th St. between Grove St. and Telegraph Ave.  
 • Free parking for 487 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: "C," 57, 15, 49, 41, 43, 14, 17.



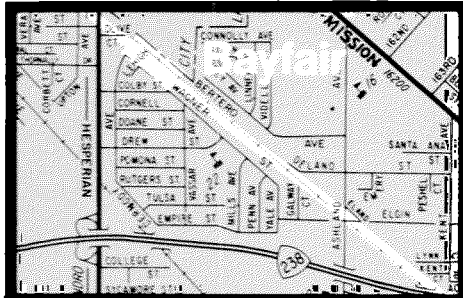
**12TH ST.** Broadway between 11th and 14th Sts.  
 • No parking; no bike racks.  
 • Served by the following AC Transit buses: "A," "T," 11, 12, 14, 15, 18, 31, 32, 33, 34, 36, 38, 40-43, 51/58, 59/76, 72/73, 80, 81, 81A, 82, 83, 88.



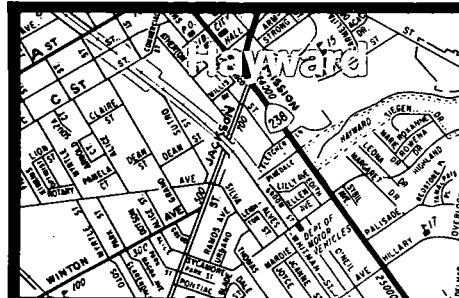
**LAKE MERRITT** Oak St. between 8th and 9th Sts., two blks. from Hwy. 17.  
 • BART headquarters and Computer Control Center; close to Laney College and Oakland Museum.  
 • 25¢ parking for 110 automobiles; 40 bike racks available.  
 • Served by the following AC Transit buses: 14, 32, 33, 36.



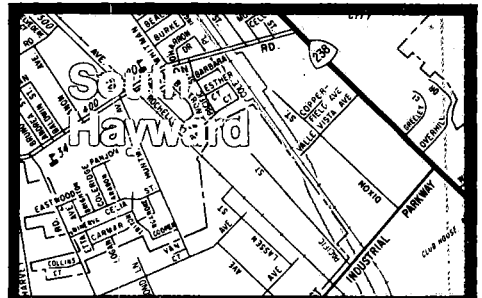
**SAN LEANDRO** San Leandro Blvd. between Davis and Parrott Sts.  
 • Free parking for 923 automobiles; 31 bike racks available.  
 • Served by the following AC Transit buses: N, 55, 60, 65, 81, 81B, 82.



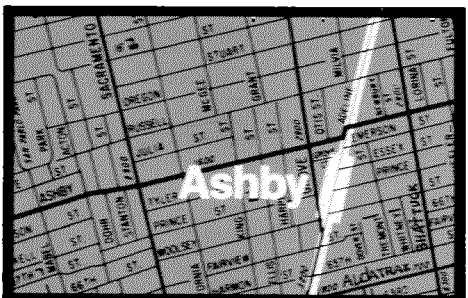
**BAY FAIR** Hesperian Blvd., adjacent to Bay Fair Shopping Center.  
 • Free parking for 1408 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 60, 62, 84, 93, 93A.



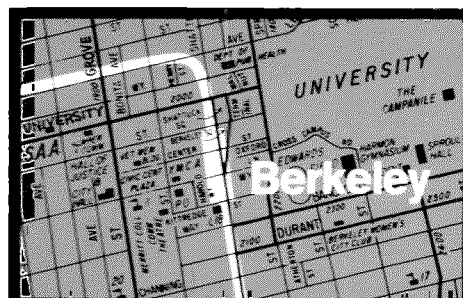
**HAYWARD** Montgomery St. between "B" and "C" Sts.  
 • Free parking for 696 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 60, 80, 81, 81A, 82, 90, 91, 91A, 92, 95.



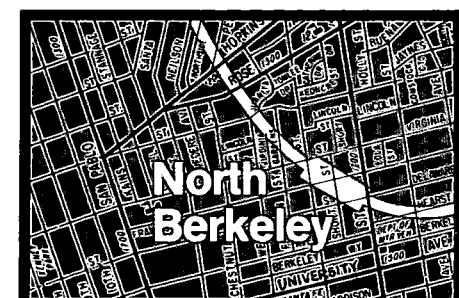
**SOUTH HAYWARD** Tennyson Rd. and East 12th St.  
 • Free parking for 507 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 82, 91.



**ASHBY** Adeline between Ashby Ave. and Woolsey St.  
 • Free parking for 560 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: "P," 15, 17, 65.



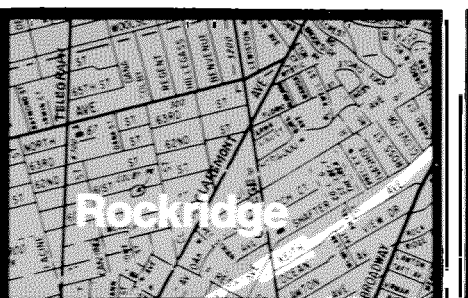
**BERKELEY** Shattuck two blocks south of University Ave. at Center St.  
 • No parking; no bike racks available.  
 • Served by the following AC Transit buses: "F," 7, 15, 40, 43, 43A, 51, 65, 67.



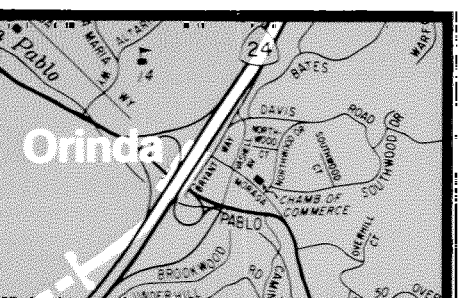
**NORTH BERKELEY** Sacramento and Delaware Sts.  
 • Free parking for 500 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 43, 43A, 51A, 65, 88.



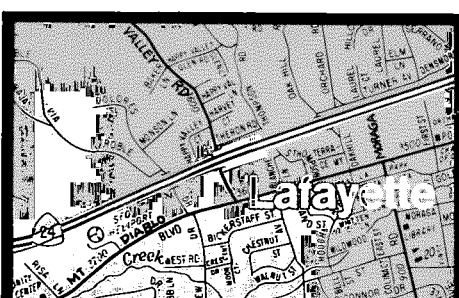
**EL CERRITO PLAZA** Fairmount Ave. adjacent to El Cerrito Plaza Shopping Center.  
 • Free parking for 509 automobiles; 36 bike racks available.  
 • Served by the following AC Transit buses: 51A, 67, 68, 70, 72, 72B, 78.



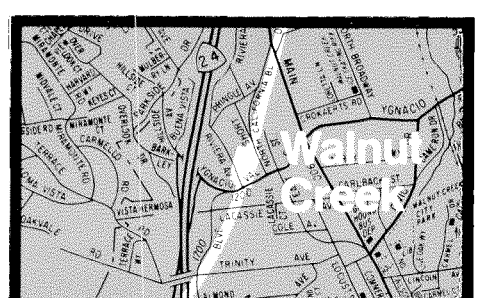
**ROCKRIDGE** College Ave. and the Grove-Shafter Fwy.  
 • Free parking for 776 automobiles; 20 bike racks available.  
 • Served by the following AC Transit buses: 17, 51.



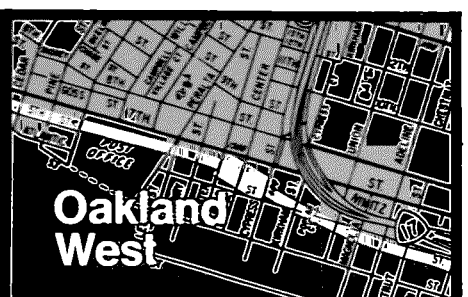
**ORINDA** Camino Pablo and Hwy. 24.  
 • Free parking for 939 automobiles; 18 bike racks available.



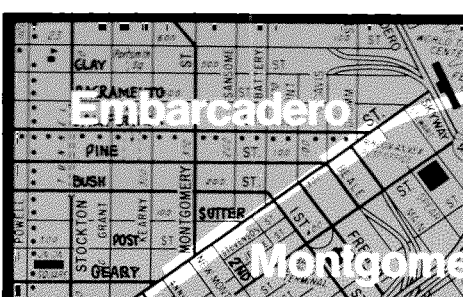
**LAFAYETTE** Deerhill Rd.; Hwy. 24 between Happy Valley and Oak Hill Rds.  
 • Free parking for 682 automobiles; 20 bike racks available.



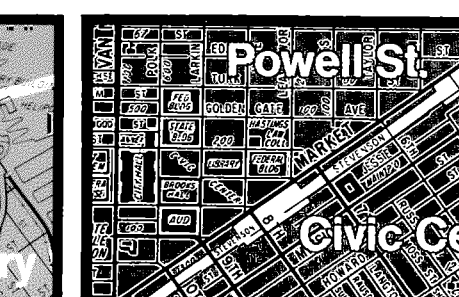
**WALNUT CREEK** Ygnacio Valley Rd. and Northern California Blvd.  
 • Free parking for 1114 automobiles; 18 bike racks available.



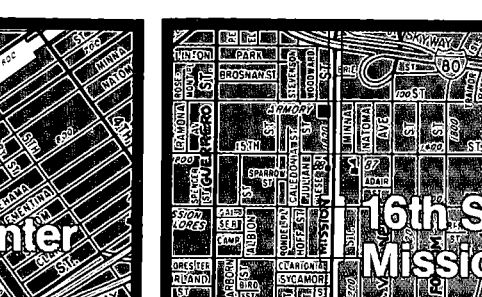
**OAKLAND WEST** Between 5th and 7th Sts., Center and Lewis Sts.  
 • Free parking for 391 automobiles; 20 bike racks available.  
 • AC bus service to be determined.



**EMBARCADERO** Market St. between Spear and Beale Sts. Two blocks from Ferry Building and Marin County Ferry.  
**MONTGOMERY ST.** Market St. between 2nd and New Montgomery Sts. Serves financial district.  
 • Muni bus service to be determined.  
 • No parking; no bike racks.



**POWELL ST.** Market between 4th and 5th Sts. Serves Union Sq., shopping and hotel district.  
**CIVIC CENTER** Market between 7th and 8th Sts. Serves City Hall, lower Market St.  
 • Muni bus service to be determined. Cable cars to Nob Hill and Fisherman's Wharf.  
 • No parking or bike racks available.

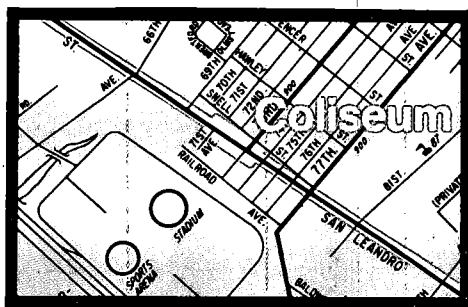


**16TH ST. MISSION** Mission and 16th Sts.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.

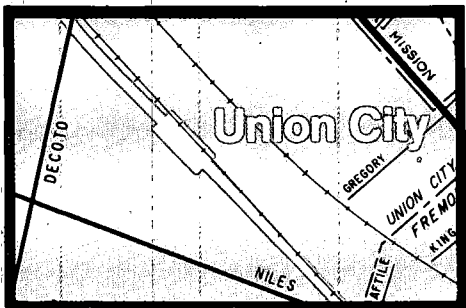
All you need to know about where they are, whether you can park, and which buses serve the station.



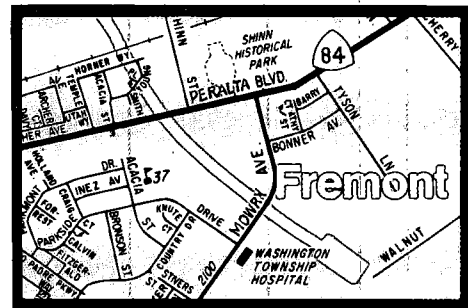
**FRUITVALE** 35th Ave. and East 12th St.  
 • Free parking for 730 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: 53, 54, 64, 79.



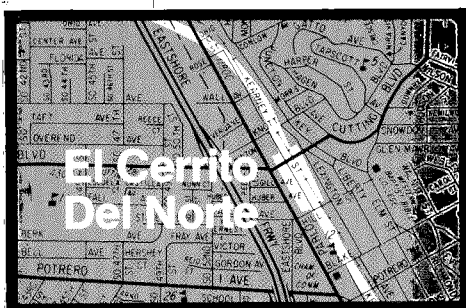
**COLISEUM** San Leandro St. between 70th and 73rd Aves.  
 • Free parking for 923 automobiles; 19 bike racks available.  
 • Served by the following AC Transit buses: 56, 57 (to airport).



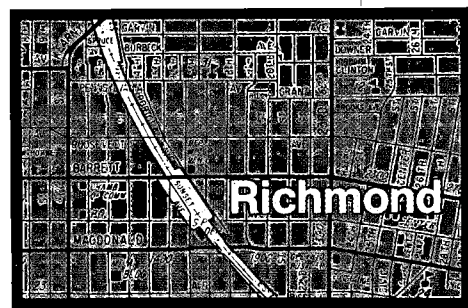
**UNION CITY** Decoto Rd. and Western Pacific R-O-W.  
 • Free parking for 485 automobiles; 18 bike racks available.



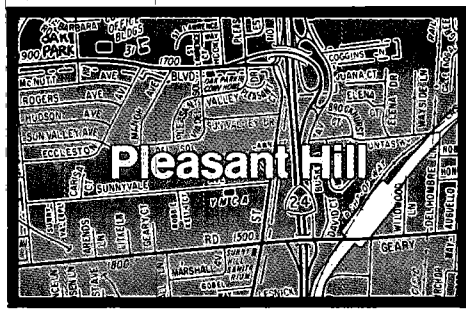
**FREMONT** Civic Center Pl.; 2 blks. southeast of Mowry Ave.  
 • Free parking for 700 automobiles; 21 bike racks available.



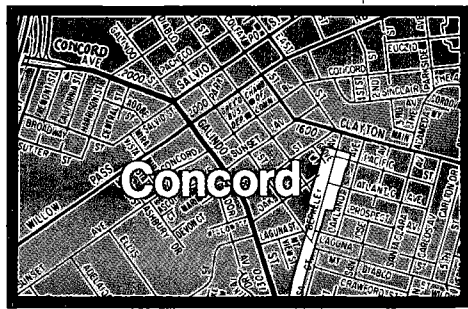
**EL CERRITO DEL NORTE** Cutting Blvd. and Hill St. 2 blks. from Hwy. 80, 1 blk. from San Pablo Ave.  
 • Free parking for 985 automobiles; 36 bike racks available.  
 • Served by the following AC Transit buses: 68, 70, 72B, 72C, 72M, 78.



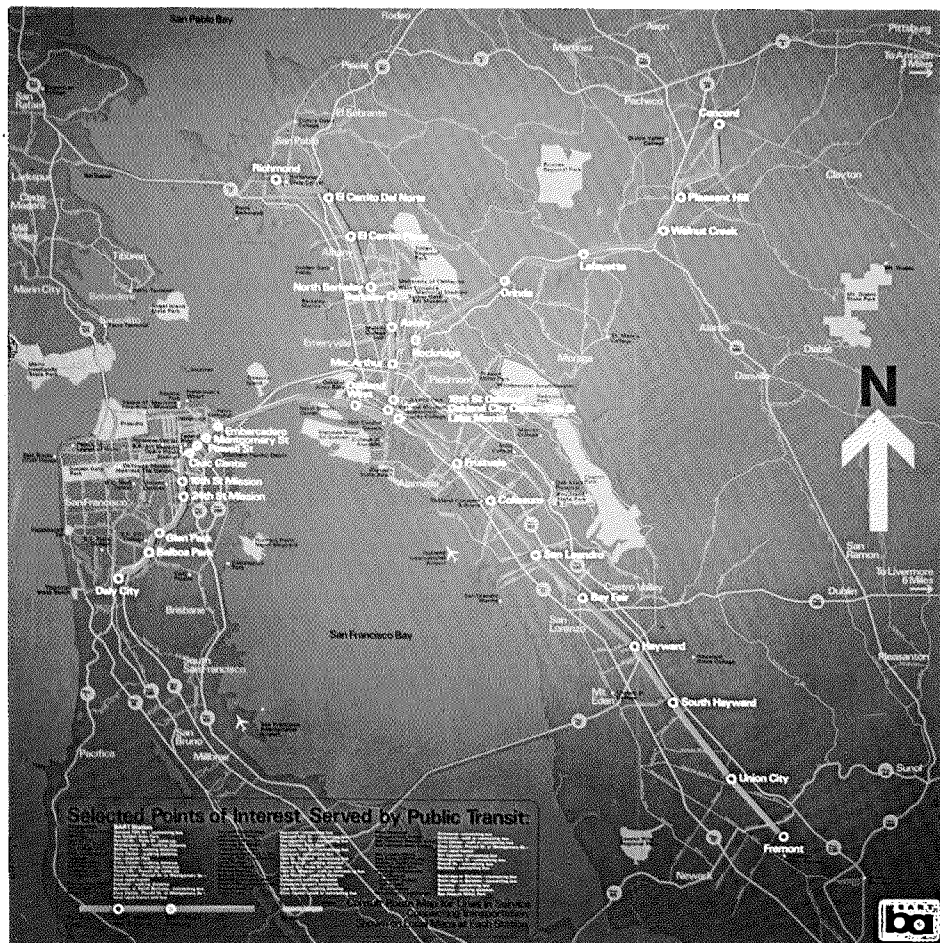
**RICHMOND** Nevin Ave.; between 16th, 18th Sts. and Macdonald Ave.  
 • Free parking for 783 automobiles; 24 bike racks available.  
 • Served by the following AC Transit buses: 68, 69, 72, 78.



**PLEASANT HILL** Geary Rd. and Del Hombro Ln.  
 • Free parking for 1,337 automobiles; 20 bike racks available.

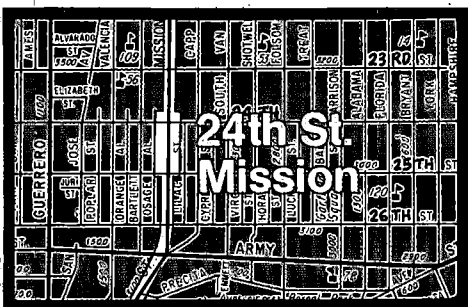
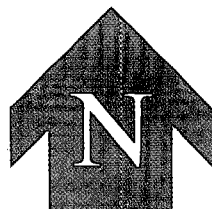
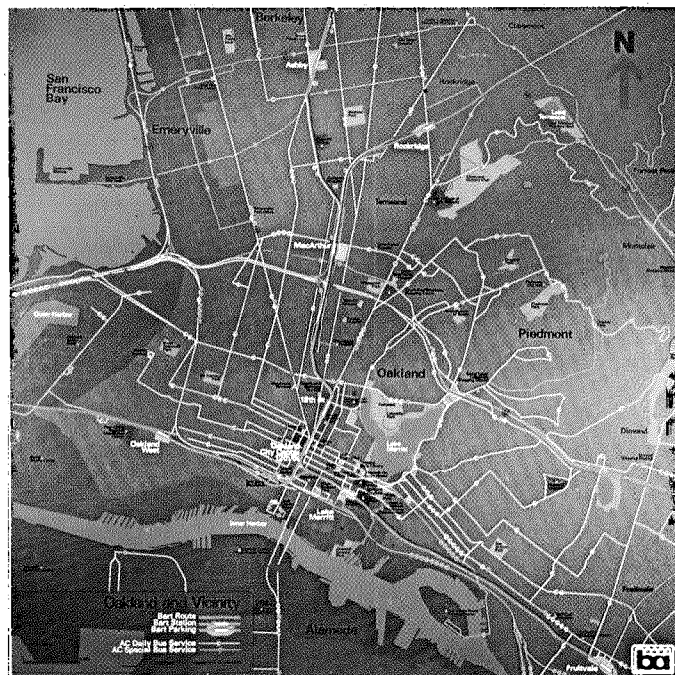


**CONCORD** Atlantic and Oakland Aves.  
 • Free parking for 1,059 automobiles; 20 bike racks available.

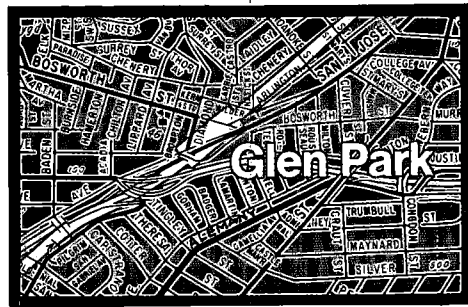


**REFERENCE MAPS**

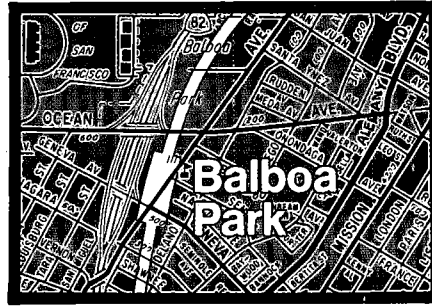
Each BART Station displays several of these large Points-of-Interest maps covering the entire Bay Area. The locations of over 40 of the more popular Bay Area attractions are shown in relation to the BART System. Also prominently displayed are large scale Local Area maps which cover the area around the station.



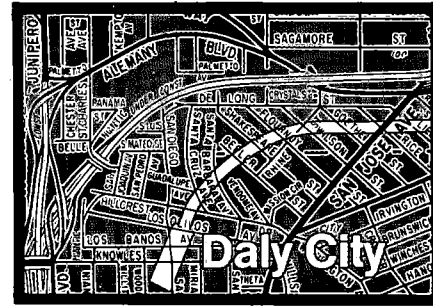
**24TH ST. MISSION** Mission and 24th Sts.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



**GLEN PARK** Diamond and Bosworth Sts., near San Jose Ave.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



**BALBOA PARK** Geneva and Ocean Aves. at Tara St. One block from Balboa Park; direct access to Hwy. 280.  
 • Muni bus service to be determined.  
 • No parking; 20 bike racks available.



**DALY CITY** Knowles Ave. between Niantic and San Diego Aves.  
 • Free parking for 785 automobiles; 20 bike racks available.



# Look what has

Subways or Rapid Transit have been around for a long time. London opened its first Underground stations in 1863. And New York's first stations on the old IRT line were opened to the public in the summer of '04.

Long years of service (and lack of funds) have taken their toll on what were once efficient, although perhaps austere, stations. As a result, many people have an image of the typical 'subway' station as an ugly place with dingy masses of concrete and narrow, drafty corridors.

But architecture has come a long way in the past hundred years. Today, public building has to be not only functional, but beautiful as well. And, as far as BART's planners were concerned, there was another very important aspect that had to be borne in mind. Each of

BART's 34 stations was, in effect, a Johnny-come-lately to the community. People had established a way of living they felt comfortable with and might, understandably, look upon the arrival of BART as an interruption to the accepted 'pattern' of their community. So BART's 14 subway and 20 aerial stations were specifically designed to fit in with their surroundings.

Variety and a healthy sense of competitiveness were achieved by appointing sixteen different architectural firms, eight landscape architects and several graphic designers and artists.

Wherever possible stations have been kept spacious and open to allow natural light to reach concourse and track levels. The result is a variety of skylights, glass walls, and



# happened to the 'subway' station.

sunken plazas. In Berkeley's Ashby Station, even the parking lot has been lowered so that the sun can light the mezzanine and platforms.

In downtown areas of Oakland and San Francisco, the stations are simple, efficient, and businesslike, brightened by large areas of color. In contrast, stations like North Berkeley, with its domed roof and skylight, or El Cerrito Plaza, with its rich earth coloring, have a more relaxed, residential air.

From the brick plaza at Lake Merritt Station in Oakland, you can look down onto an airy fountain with pool and ferns. This garden-like area is surrounded by a concrete wall sculptured with birds and fish. Behind this 200 foot mural is BART's computer control center—the artist thoughtfully leaving peepholes so passers-by can see what makes the entire system tick.

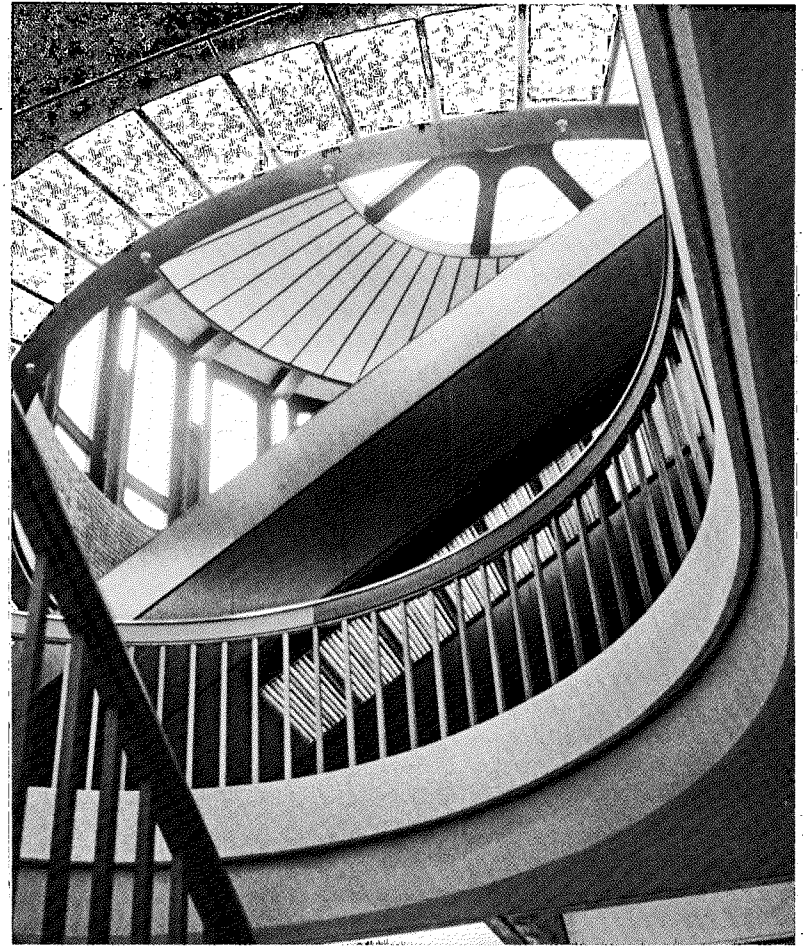
In all, fifteen stations contain works of art specifically commissioned for them. MacArthur Station's mezzanine is brightened by colored mosaics. Two townscapes decorate Union City Station. In San Francisco, the Mission Street Stations are enhanced by giant concrete bas reliefs in an Aztec motif and brightly colored tile.

Historically, overhead stations and their tracks have often blighted the areas they pass

over. But BART's architects, with the help of a \$400,000 federal grant, found ways to actually improve these areas. Beneath 2.7 miles of track in Albany and El Cerrito, there are now 'linear parks'; green lawns, pine trees and flowering shrubs—even a shuffleboard court and a tot lot.

Of course, there's a lot more to BART stations than meets the eye. You can move from one level to another by stairs or escalator and, for the handicapped, there are special elevators set apart from the main rush of passengers. And, for your convenience, there are telephones, vending machines with candy, coffee, soft drinks and cigarettes. Also storage lockers and newspaper stands.

We have tried very hard to make BART stations a lot more than places to get on and off trains. We hope you agree the effort was worth it.



**TOP LEFT:** *Bas relief in Aztec motif at the Richmond Station.*

**LOWER LEFT:** *The plaza at Lake Merritt Station.*

**RIGHT:** *Sunlight reaches below ground platforms at Berkeley Station.*

**BELOW LEFT:** *Mosaic mural at MacArthur Station.*

**CENTER:** *Vaulted roofs at 16th-Mission Station.*

**RIGHT:** *Super-graphics brighten Coliseum Station.*

**LOWER RIGHT:** *Map display area and ticket machines at Lake Merritt.*





# Buying your first ticket.

To some people, BART's fare collection machinery seems a little complicated at first, but system testing with every kind of passenger—from young children to 80-year-old grandmothers—indicated all caught on pretty well the second time around.

For those who have not had a chance to ride BART...

*Here's your first time around:*

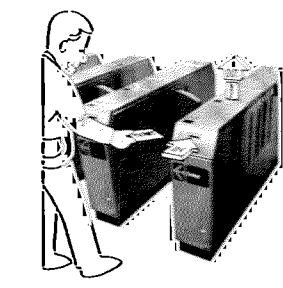
BART fares are graduated: the farther you travel, the more you pay. The procedure is entirely automated, employing a kind of "credit card" ticket that you use to enter and leave the system. You slip your ticket into the entry gate and the machine lets you into the station. As you pass through, the entry gate pops your ticket back to you. It's exactly the same when you leave a station.

That's all there is to the basic idea—but let's start from scratch and imagine you are buying your first BART ticket... As you enter the station you go to a ticket vending machine.

Start giving this machine your money and watch the changing total in the lighted "window" marked *ticket value*. The machine will take anything from a nickel to a five-dollar bill and issue tickets valued anywhere from 30¢ to \$20. The total tells you how much you've put into the machine. When you reach the value you want, press the *Issue New Ticket* button and a new ticket is issued with what you paid stamped right on it. This machine can even take an old ticket, "read" how much value is left on it and credit it towards a new one!

The change machine next to the ticket vender may prove useful if you want to buy a ticket in an exact amount.

Now, with your ticket in hand, go to the entrance gate and insert the ticket in the slot. In 8/10ths of a second, your ticket pops up. Lift it out, and the orange gate slides open. You're in!



You can also pass through the entry gate with coins. There is a coin slot which will take the minimum fare of 30¢. The entry gate issues tickets good for BART's minimum ride as you pass through. This ticket does not have "30 cents" stamped on it, but don't worry, BART's machines will know what it's worth.

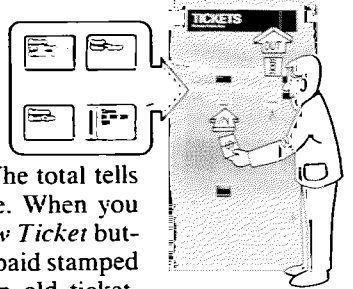
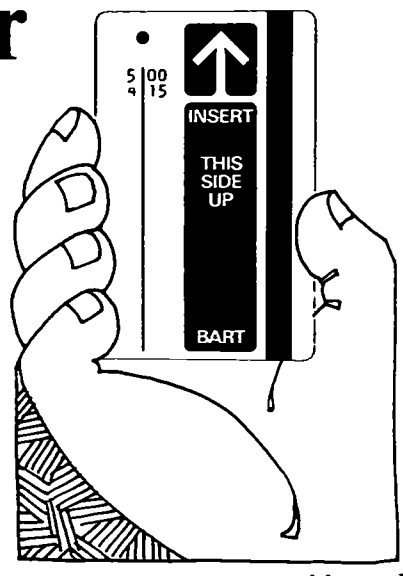
At the end of your ride the procedure is the same. You give the exit gate your ticket. Provided it has enough value on it to cover your trip, the machine will automatically deduct the correct fare and, if value remains on the ticket, return it to you as it opens the gate.

But let's say your ticket has insufficient value: it reads 30¢ and your trip cost 65¢. In this case, the exit gates will not open. Your ticket will be returned, and a little sign on the gate will flash "*Ticket Underpaid—Go to Addfare.*" In this case, you simply pick up the ticket and step over to an "*Addfare*" machine. Insert the ticket and a lighted panel will tell you how much money you need to add to the ticket to get out. (A change machine next door is there to help you make the necessary adjustments.) When the window marked "*Additional Fare Required*" reads zero, the Addfare machine will flash: "*Good for Exit.*" You go back to the exit gate and, this time, the ticket lets you through.

This has taken a lot longer to explain, in words and pictures, than it takes in practice. But, should a passenger—at any time—think the machines have got the better of him, the *Station Agent* in the Information Booth by the machines will sort it out. That's what he's there for.

One thing to remember is that BART's machines "think" with magnetic tape. The ticket's brown stripe is encoded with all the value, entry, exit and timing information. Rough handling or exposure to a magnet could destroy its usefulness. It's just like money, so keep it in a safe place.

People often ask why BART needed all this space-age machinery? The answer is simple. Speed and convenience. From the outset, BART's planners and engineers knew that for people to switch from their cars to rapid transit the whole experience had to be easy and enjoyable. And that definitely includes how easy it is getting into and out of the stations.

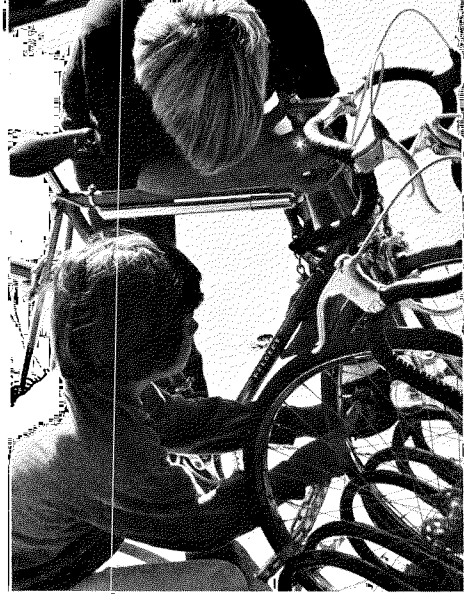


# Getting there is

When they set out for their Saturday sailing lesson at Lake Merritt, Nick and Bob Wilson decided it was a good opportunity to take their



*The boys follow BART's blue and white 'pathfinder' signs down Decoto Road right up to the Union City station...*



*... and leave their bikes in the rack by the entrance. (You can't take bikes on BART trains.)*



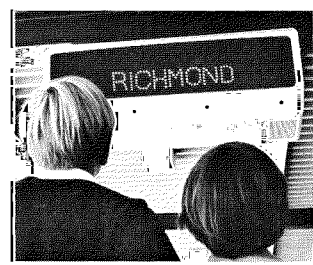
*The tickets go in and the orange panels slide back before you can say "Open Sesame." Now for the trains!*



*A quick look to check they're headed for the right platform,*



*and they're up the stairs two at a time...*



*just in time to make the Richmond train.*



*At the Lake Merritt Station, Bob checks the local map to see if the lake is close enough to walk to. (It is.)*



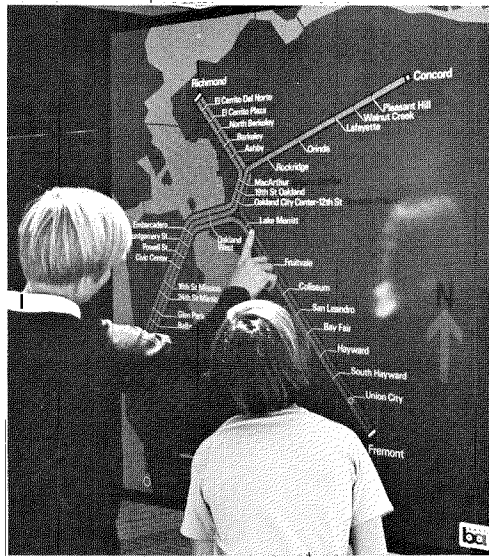
*They get out of the station the same way they got in—except that these exit gates deduct the fare for the ride.*



*A peek through the wall at BART's Lake Merritt computer center which makes the entire system run...*

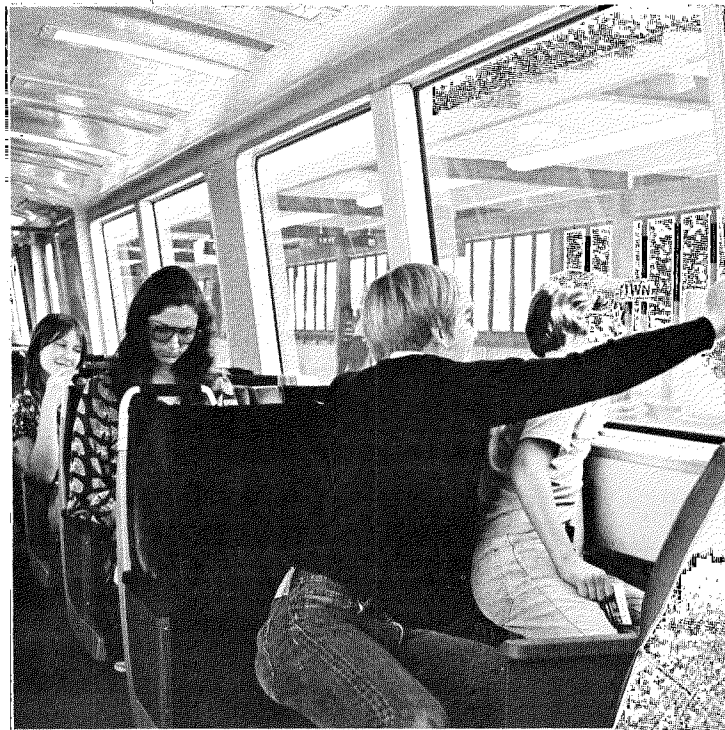
# half the fun.

first ride on BART. We sent a photographer along to snap what happened.

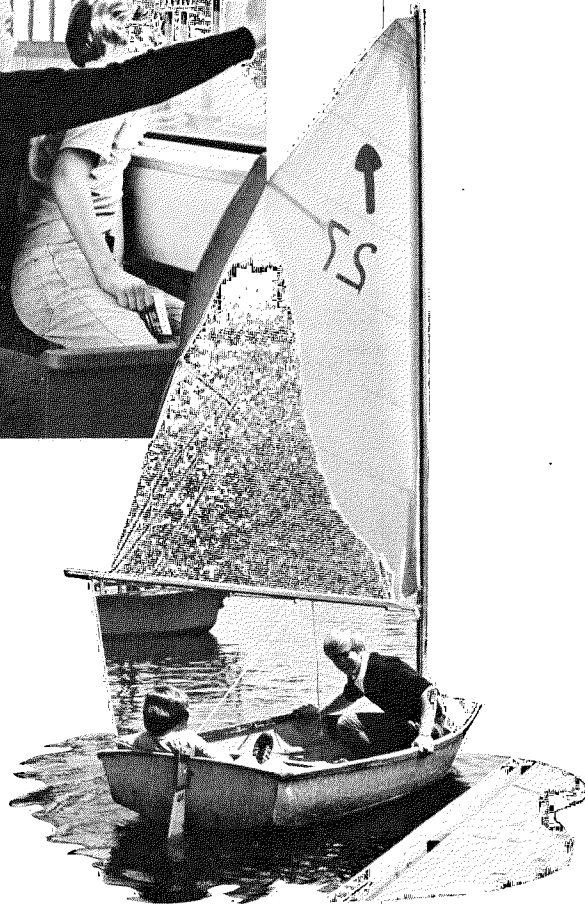
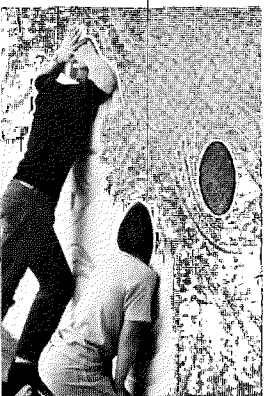


Outside the station they do what everyone does first time out—they figure out where they're going and what station to get off at. Several of these large scale Route maps are displayed at every BART station.

Bob puts a dollar, two quarters and two dimes in the ticket machine, presses the magic button and out pops his round-trip ticket. (Since Nick is not yet 13 his dad has already bought his special red discount ticket at a local bank.)



During their 20 mile, 22 minute trip to Lake Merritt, Bob and Nick get a chance to see several stations.



and they're off... and sailing!

## You'll be seeing a lot of these BART people:

**BART Train Attendants** are up front of every train. Their responsibility is overseeing the operation of the BART cars and making intercom announcements of train destinations and other information.

**Line Operations Supervisors** are in charge of Train Attendants and Station Agents as well as the trains. It's their responsibility to keep things running smoothly.

Every BART station will have at least one **Station Agent**. He serves as the 'manager' of that location. He's there to advise, inform and assist, either personally or when you call him on the white courtesy telephones placed throughout each station.

BART has its own **Security** people regularly patrolling stations, trains and parking areas.

Look for our **BART Passenger Representatives**. They are mobile extensions of our Station Agents, acting as special service assistants.



A limited number of this **COMMEMORATIVE PUBLICATION** is available in deluxe edition.

Same size and content as this rotogravure supplement, but printed on high quality glossy paper. Hard bound cover in blue and silver. A collector's item.

Each copy \$7.50. Postage and tax included. Mail to: BART Passenger Services, 800 Madison Street, Oakland, California 94607.

Please send me \_\_\_\_\_  
copies of the deluxe  
edition of BART's  
Commemorative  
Publication at \$7.50 each.

Name \_\_\_\_\_

Address \_\_\_\_\_

I enclose \$ \_\_\_\_\_.

City \_\_\_\_\_ Zip \_\_\_\_\_

# PRESIDENT'S MESSAGE

by George M. Silliman, President, Board of Directors, Bay Area Rapid Transit District

As one of the two current BART directors with 15 years of service on the Board, I have watched the BART system emerge from the tenuous dreams of its inception to the people-carrying reality of today.

The final product didn't come quickly, cheaply or easily but, as the pages of this publication indicate and a ride will confirm, the BART system is one of the best investments made by the people of the Bay Area.

It is an investment that achieves the immediate goal of providing a most efficient transportation service to millions of people and a giant step towards the achievement of the long range goal of providing an instrument for coordinated urban planning for the entire Bay Area.

The BART system is the nucleus of a transportation system that will eventually serve all 9 Bay Area Counties. With only a 28 mile segment of the 75 mile system in operation, expansion is already on the drawing boards. Under actual study are rail transit links to both San Francisco and Oakland airports; the Antioch-Pittsburg area of eastern Contra Costa County; the Livermore-Pleasanton region of southeastern Alameda County; and the northwest segment of San Francisco.



George M. Silliman, Alameda County

Federal funding is easier to come by today than it was in BART's pioneering days in the 1950's and 1960's, making earlier starts on our extensions much more attainable.

A 300 mile rapid transit system embracing all nine Bay Area Counties will not happen overnight, nor be without its problems, but it is much closer to reality than ever before. It may sound like an optimist's dream, but then, so did a 75 mile system back in 1962. I am convinced that such a dream can be fulfilled and know my conviction is shared by current and former board members, who have given their time and talent in guiding this project.

Those former board members are:

Mr. Frank N. Alioto, Mr. Richard A. Bancroft, Mr. Newell B. Case, Mr. Thomas F. Casey, Jr., Mr. Allen E. Charles, Mr. Felix Chialvo, Mr. H. L. Cummings, Mr. Arthur J. Dolan, Jr., Mr. Adrien J. Falk, Mr. William S. Godfrey, Mr. Garland D. Graves, Mr. Thomas Gray, Mr. Stanley T. Grydyk, Mr. Robert Higgins, Mr. John C. Houlihan, Mr. Wallace J. S. Johnson, Mr. Marvin A. Joseph, Mr. Roger D. Lapham, Jr., Mr. Clair W. MacLeod, Mr. Harry L. Morrison, Jr., Mr. J. Joseph Sullivan and Mr. Sherwood Swan.

## DIRECTORS

### ALAMEDA COUNTY



Arnold C. Anderson  
Pasi President



Richard O. Clark



H. R. Lange

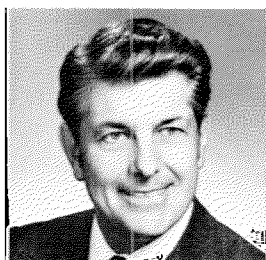
### CONTRA COSTA COUNTY



Nello J. Bianco



James P. Doherty  
Pasi President



Daniel C. Helix



Joseph S. Silva

### SAN FRANCISCO COUNTY



William H. Chester,  
Vice President



William C. Blake



Thomas F. Hayes



William M. Reedy  
Past President

# The corporate team that brought BART into being

The assignment that was handed to BART's engineering consultants some 20 years ago was direct and simple: "Produce the world's best mass transportation system for the people of the San Francisco Bay Area."

To deliver this, no one engineering firm could carry the full load. So three outstanding firms formed the joint venture of Parsons Brinckerhoff-Tudor-Bechtel and undertook the job of designing, engineering and management of the construction of the entire BART system.

PBTB did its job by recruiting the greatest engineering design team that ever has been assembled. BART's requirements over the years occupied a corps of thousands of civil, structural, mechanical and electrical engineers, as well as essential specialists such as supervising architects who coordinated the work of planning 34 community-oriented stations.

Obviously, planning for people has to be done by people, so perhaps you would like to know that PBTB's Board of Control is composed of John P. Buehler, of Bechtel Corporation; Walter S. Douglas of Parsons, Brinckerhoff, Quade & Douglas; and Louis W. Riggs of Tudor Engineering Company. Their project director in charge of the BART job is W. A. Bugge.

Bechtel is one of the world's leading engineering firms, operating in 38 countries from its San Francisco base. Its staff of about 6,000 engineers designs and builds hydroelectric, fossil fuel and nuclear power projects, mining developments, refinery and pipeline projects and mass transportation systems. The company is highly experienced in designing and building service facilities for people. It was Bechtel's expertise in automation and large-scale electric projects that established the criteria for BART's automatic train control and \$55 million electric power system.

Parsons, Brinckerhoff, Quade & Douglas, based in New York, is outstanding in transportation planning. Founded by General William Parsons, the designer and builder of the first New York subways and a consultant on the London subway, the firm was the logical choice to perform the original feasibility study on BART. This led to formation of the joint venture and the assignment to design and supervise the building of the system. The company's record includes such accomplishments as the planning and design of 4,000 miles of highways, 1,300 bridges, and mass transportation systems in ten cities.

San Francisco's Tudor Engineering Company is widely known for transportation planning and engineering, including highways, bridges, port facilities and mass transit. Tudor's engineers also have completed transportation studies in Alaska, Hawaii, Contra Costa and Marin Counties and Seattle in the United States, as well as in Latin America.

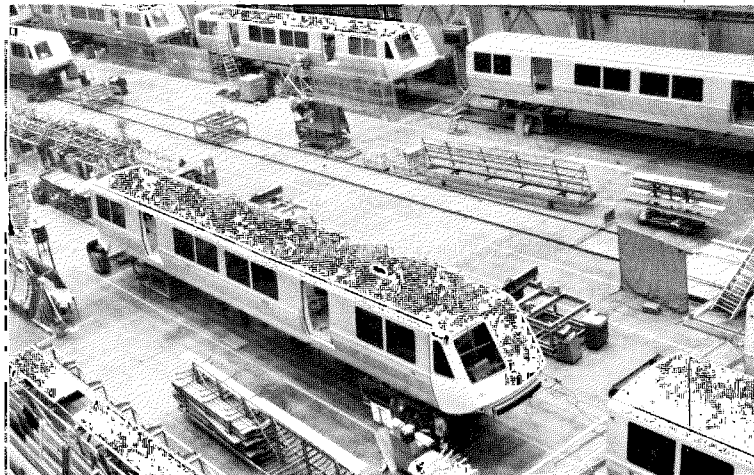
These three firms had a reservoir of capability to run a railroad right-of-way through tubes under the bay, to tunnel the Berkeley Hills, to provide BART customers with a new kind of high-speed, quiet, comfortable train, operating over 75 miles of line, stopping at 34 convenient stations, self served by a space-age ticket vending system, and with the innovation of an automatic electronic train control system. All this with the overriding requirements of safety and reliability.

Having delivered on BART, PBTB's people are now in demand in other cities. In Atlanta, they are planning a \$1.3 billion rapid transit system. In St. Louis, they have completed a study for an integrated train and bus system. In Caracas, Venezuela, they have just finished plans for a \$700-million transit network.

But BART is the favorite of PBTB's staff. Some of them have been working on it almost 20 years! They have had a long, close involvement with this people-oriented project that crossed so many new frontiers of technology. In more ways than one, it was the job of a lifetime.

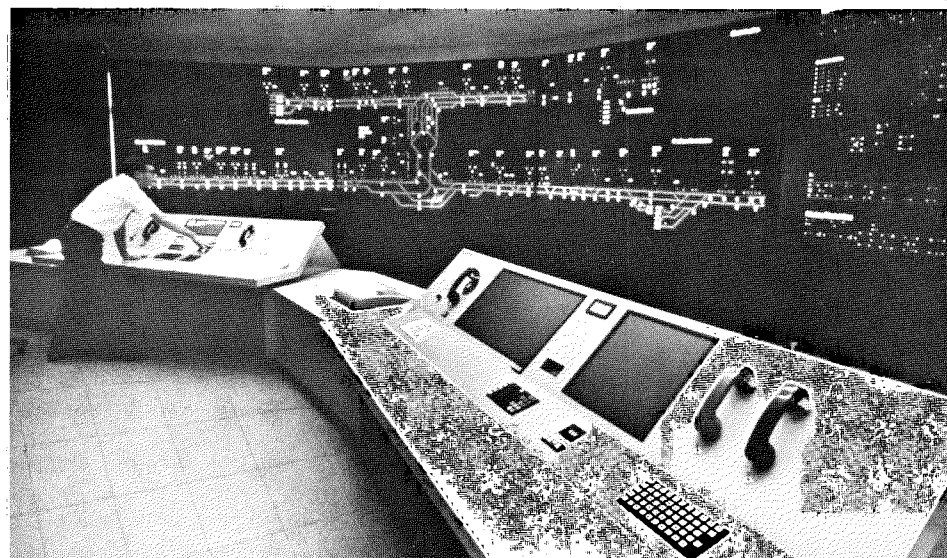
# These firms, working with BART, helped finance the production of this book

## Rohr Industries builds the BART car.



Rohr Industries also builds rapid transit cars for Washington, D.C.; provides half the nation's city transit buses; builds the Monocab people mover that was the hit of Transpo '72; is developing the Aerotrain air cushion vehicle, the ROMAG magnetic vehicle, and is engaged in a wide range of research projects for transportation of the future.

**ROHR** — helping engineer a better tomorrow



## Westinghouse equipment and systems are working at BART

Westinghouse Electric played a big part in making BART a reality.

BART is a showcase of modern mass transit. Westinghouse supplied the automatic train control, the advanced propulsion equipment, as well as air conditioning and computers. In addition, we supplied car testing equipment, escalators, elevators, and lighting equipment.

Westinghouse is also playing a key role in other transit systems such as New York City; Washington, D.C.; Sao Paulo, Brazil; and both Seattle-Tacoma and Tampa International Airports.

You can be sure...if it's Westinghouse



## BART and IBM

BART is a major step forward for a progressive American city striving to meet the needs of its people and to improve the quality of urban life — IBM takes pride in its contribution to that achievement through its development of BART's automatic fare collection system.

IBM is working to meet man's needs on many fronts—helping to speed the mail, to fight pollution, to improve the administration of justice, to enhance the safety of travel in our nation's skies.



Gallagher & Burk

Kaiser Industries

McGuire & Hester

Midland Industrial Electric Co.

Morrison-Knudsen Co., Inc.

Newbery Electric Corp.

Perini Corp.

Winston-Drake-Early

**Boss Group Companies** offer complete uniform and career apparel services including designs, manufacture, sales and rental, plus complete system support that includes individual deliveries and a comprehensive control program to assist clients with cost analysis.

Proud to be associated with BART's innovative transportation system, several Boss Group Companies have worked to develop BART's unique career apparel.

**Christensen & Foster**, a Santa Rosa general building contracting firm, is proud to have played a part in the construction of the world's most modern transit system.

In 14 years of incorporation, Christensen & Foster has successfully completed more than 700 individual contracts over the width and breadth of Northern California for all manner of clients, including private corporations, public utilities, city, county, state and federal government jurisdictions, and all branches of the armed forces.

Completed and presently active BART contracts include station finishes at the MacArthur, Berkeley and Civic Center

**Peter Kiewit Sons' Co.** has performed virtually all types of construction in its 88-year history.

Following extensive defense construction during World War II, the company resumed its operation in building and highway work, and also expanded the nature of its heavy engineering construction to include marine, mining and tunneling operations.

Headquartered in Omaha, Nebraska, it is now one of the nation's larger construction organizations with district and area offices located coast to coast (including Alaska) and

**Homer J. Olsen, Inc.** has constructed West Coast projects from Southern California to the State of Washington with expertise in the management and engineered construction of unusual and complicated jobs. These include airports, highways, bridges, environmental protection projects and portions of the Bay Area Rapid Transit system.

The Olsen organization has been involved, either singly or in joint venture with other heavy construction contrac-

**Sundberg-Ferar**, industrial designers of Southfield, Michigan, was responsible for two of the most significant design elements of the BART system—the BART car and BART logo symbol.

Sundberg-Ferar's car design achieves the prime objective of providing the transit passenger with luxurious, comfortable surroundings and its logo design is a strong symbol which will immediately identify station locations, trains and

The Commercial Uniform Division of Los Angeles has created all the BART apparel; the Boss Rental Service Division of San Leandro will provide BART with a complete uniform leasing program.

Designed for quality and comfort, the distinctive BART uniforms will speak "pride and performance" for the men and women who wear them.

Stations, platform finishes at 16 stations on the East Bay Lines, and construction of San Francisco's Hallidie Plaza.

It is Christensen & Foster's policy to undertake quality construction in a timely and efficient manner through the media of aggressive management and the melding of their own personnel with that of subcontractors' and materials suppliers.

Christensen & Foster looks forward to many more years of aggressive and satisfying endeavor in the building construction field in Northern California.

from Vancouver, British Columbia to Montreal, Canada.

Its work on BART has included heading the joint venture construction of the transbay tube, twin compressed air tunnels beneath San Francisco's Mission Street, the twin-tunnel Diamond Street subway, and the Glen Park, Van Ness and Civic Center Stations. Its Castcon Division has manufactured and/or installed approximately 25 miles of pre-cast, pre-stressed concrete double track girders for the aerial portion of the BART system.

Its work on BART has included heading the joint venture construction of the transbay tube, twin compressed air tunnels beneath San Francisco's Mission Street, the twin-tunnel Diamond Street subway, and the Glen Park, Van Ness and Civic Center Stations. Its Castcon Division has manufactured and/or installed approximately 25 miles of pre-cast, pre-stressed concrete double track girders for the aerial portion of the BART system.

It has been an honor to be part of such a significant project.

all BART literature. Both have become trend setters and goals for other transit agencies to strive for.

Since completion of the BART design, Sundberg-Ferar has designed and built prototypes of fifteen transit vehicles for other major cities in the country including New York, Long Island, Washington, D.C., Chicago, Baltimore, Las Vegas and the Boeing State-of-the-Art Car for the United States Department of Transportation.

