



Metro News **BULLETIN**



*Metro Rail saluted by
International Transit Magazine
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By Ray Hebert

As the largest single construction job ever undertaken in Los Angeles, it's been a disappointment.

No mammoth excavation for sidewalk superintendents to ponder. No concrete and steel foundations slowly filling a gaping pit, day after day, nor girders and beams rising 40, 50 and 60 stories.

It's not that the people of Los Angeles, especially the more than 230,000 persons who work downtown, are blasé.

There just hasn't been much to see except wooden barriers, New Jersey-type concrete barricades and rows of wooden decking in the streets, which gawkers soon find pretty boring. There's also been a steady flow of trucks laden with dirt and muck hauled from underground digging, but that's boring, too.

On the other hand, if this project—the first construction stage of the city's long-awaited Metro Rail subway—has been visually disappointing, it has more than made up for it in traffic tieups, blocked streets, detours, delays and other inconveniences for thousands of downtown motorists and businesses.

"That's the price of progress," said Joe Crowley, a senior engineer with the city Department of Transportation. "But, Los Angeles seems to adjust to any situation. It's the rubber tire culture—you know, automobiles, freeways, streets."

Since ground was broken for the subway two years ago, aggravations have become a way of life for downtown commuters. They've learned—with the resourcefulness of most Los Angeles drivers—to steer clear of the five station construction and tunnel

boring sites along the subway's curving 4.4-mile (7.1 km) route through downtown.

For a central business district already facing gridlock, saddling it with the subway job was about on a par with adding a few more explosives to a mine field.

Despite the subway project's scope and \$1.25 billion cost, it is not solely to blame for the disruption of traffic and generally creating havoc throughout much of the downtown area. The subway only made a bad situation worse.

Spilling beyond its historic boundaries, the central business district is undergoing a phenomenal office building boom. More than 50 buildings of all types are in various stages of construction, rehabilitation or planning and several are along or near the subway route. Many are highly visible contributors to the turmoil, including the 73-story Library Square project and two office towers rising at the site of one of the Metro Rail's main underground stations.

At this stage, the subway has priority. Finally getting the building job underway climaxed more than 30 years of planning and abortive attempts to finance a rail rapid transit system to ease pressure on the Los Angeles region's freeway and street networks.

The downtown line is being built by the Southern California Rapid Transit District (SCRTD) as the first part of a 17.7-mile (28.5 km) subway to the San Fernando Valley. Downtown service is expected to begin in 1993. By then work should be well along on an extension under Wilshire Boulevard, through

Hollywood and the Hollywood Hills and into the valley northwest of downtown Los Angeles.

Designed as a high-speed, high capacity heavy rail project, the Los Angeles subway is patterned after those in Washington, D.C., Atlanta, San Francisco and other cities.

Top U.S. Department of Transportation officials once said such a system wasn't needed in Los Angeles and wouldn't be worth building—not with federal money, anyway. Unwavering believers, however, insisted a heavy rail system was crucial to keep downtown Los Angeles from "stagnating" under the crush of vehicular traffic generated by the central business district's new office high rises.

Finally bankrolled, at least in part, the subway line is being paid for by a reluctant federal Urban Mass Transportation Administration and with funds provided by the state, county and city and special benefit assessments against downtown property owners.

The full system's cost is estimated at \$3.17 billion and all but \$700 million to \$900 million is in the bank or committed.

In the meantime, while the laborious—and cost intensive—subway digging job goes on far below downtown streets a prosaic drama with unpredictable climaxes is being played out above ground. It involves a carefully orchestrated program to keep cars, buses, trucks and vehicles moving and tempers in check to forestall premature traffic "strangulation."

Nicknamed Streetwise, the program is a coordinated public and private effort to foresee "hot spots" developing from Metro Rail work and other construction jobs, including utility relocations and street paving work. Once they are pinpointed, response teams close traffic lanes, put up detour signs and take other measures to keep traffic from interfering with workers and vice versa.



Cut-and-cover construction methods are being used to build the downtown stations

A regular contributor to MTM, Ray Hebert's most recent article — on transit promotions — appeared in the September 1988 issue.

Initially, as part of the program, the Department of Transportation converted several main streets to one-way traffic, hoping vehicular flow would be better. In addition, extra traffic control officers—an average of 12 a day, their pay picked up by the rapid transit district—are being assigned to known “hot spots.”

The transportation department, with help from other public agencies, private firms, the transit district and contractors involved in downtown construction work, is also issuing construction maps and schedules covering six-month and five-year periods. All major downtown projects are included.

For example, the material contains this notation about one Metro Rail project—the station at 5th and Hill Streets in the downtown core:

“This station, located below Hill Street from north of 4th Street to south of 5th Street, is being constructed by the cut-and-cover method. Work will continue with the installation of soldier piles and temporary wood decking of the roadway, followed by excavation of the entire roadway width.”

The transportation department cautions that the maps and schedules are useful only so long as up-to-date information, such as schedule changes, is called to its attention.

Radio stations have been brought into another phase of the program. The idea is for them to broadcast downtown traffic information, ideally on an up-to-the-minute basis. Such information, the transportation department said, comes from traffic control officers, motorists and even taxi-cab drivers and delivery and supply service drivers who are unable, for example, to pull along-side a curb because the street’s curb lane is unexpectedly closed.

“It’s not so much the scheduled work that causes the problems,” said Al Albaisa, a transportation department engineer, “it’s the unscheduled jobs. Yesterday, for instance, utility trucks were blocking through-traffic lanes at Figueroa and 7th Streets [the site of a Metro Rail station and two office buildings under construction].

“The biggest problem is that we have to



Digging the tunnels is a lonely job and it goes on around the clock

allow construction to proceed without interfering with downtown workers, shoppers and people who live downtown. They’re not going to go away.”

Although the entire central business district is affected by subway construction and other building jobs, the primary focus of the traffic mitigation program is on a 50-square-block area in which two Metro Rail stations and the largest office tower projects are located.

Here, parking garages and surface lots, providing many of the more than 100,000 spaces available in downtown Los Angeles, get up to \$2 for 20 minutes parking. Indeed, the demand for space is so critical that daily traffic volumes have reached their limits on some streets.

For example, the traffic count on 5th Street, which is one way and a favorite for homeward bound commuters, usually hits about 31,000 vehicles a day. On Figueroa Street, which crosses it, the daily volume is 28,000. This gives the Figueroa-5th Streets intersection, only two blocks from a Metro Rail station, a daily count of nearly 60,000 vehicles.

Sometimes, of course, the Streetwise program works and downtown traffic on streets like Figueroa and 5th is quite normal: long bumper-to-bumper lines of cars creeping along in frustrating fits and starts.

At other times . . . well, the city’s traffic engineers know there will be better days.

It’s a different story down where the Metro Rail’s construction work is taking

place.

The street level barricades, lane closures and detours only hint at the monumental tunneling job underway along the subway’s entire downtown length—from Union Station, its terminal point at Los Angeles’ historic railroad depot, to Wilshire Boulevard and Alvarado Street.

Like denizens in another world, construction crews trail huge mechanized mining machines biting into the earth to shape the subway’s twin tunnels. Most are 30 to 40-ft (9 to 12 m) below the streets. But at one point they dip down to 80-ft (24 m) where the subway line, undulating from station to station like high tension wires, goes under the Harbor Freeway.

Digging the tunnels is a lonely job and it goes on around the clock.

Pushing into soft earth, sophisticated equipment scoops out the raw tunnel, forming a bore somewhat higher and wider than a two-car garage. Behind the machine freshly mined dirt is dumped onto a conveyor belt, then into little rail cars to be hauled away. The cars also bring in precast concrete ribs which backup crews, working behind the mining machine, lift into place for the tunnel’s temporary lining.

And so it goes at three separate tunneling jobs which are advancing the subway’s rough shaft as much as 50-ft (15 m) a day. On most days more than 30 truckloads of fresh dirt come out. Someone figured such a load would bury Pershing Square, a block-square park in downtown Los Angeles, under five feet (1.5 m) or dirt.

Preliminary work also started some time ago at four of the five downtown stations. Recently a shaft went down for the terminal facility at Union Station and construction is under way on the big maintenance yards and shops nearby.

In Italy, thirty 75-ft (22.9 m) air-conditioned rail cars are on order with Breda Costruzioni Ferroviarie and another 116 will be ordered later when the Metro Rail system is expanded.

Although it doesn't seem possible because the subway's 400 to 500 construction workers have kept such a low profile, either underground or at the maintenance yard, all the downtown project's major contracts, 14 in all, have been awarded and work is well along.

For example, the largest single contract, for \$67 million, calls for tunneling from Union Station to 5th and Hill Streets, the subway's midway point in the center of downtown. Building the subway's Civic Center station also is included in the job,

which started nearly 20 months ago.

The next station down the line at 7th and Flower Streets in downtown's new financial district has been designed as the largest on Metro Rail's initial segment because it will also serve as the terminal station for the Los Angeles area's first light rail line. That line is under construction between downtown and Long Beach.

Like Metro Rail's other downtown stations, cut-and-cover construction methods are being used to build the 7th and Flower station. Buried 60-ft (18.3 m) under 7th street, it will extend two blocks from Figueroa Street to Hope Street. Light rail trains from Long Beach will go into a five-block-long tunnel, now being dug under Flower Street, before pulling into the station's mezzanine level.

Under the present schedule, Rhine said, the downtown subway is set for a January 4, 1993 startup—a date already pushed back nine months because of an alignment change, renegotiated contracts and

other problems.

SCRTD planners figure that a few years after its opening upwards of 55,000 commuters, shoppers and others will be riding the downtown subway daily. Of course, ridership will increase dramatically when the entire subway line, which is expected to carry nearly 300,000 daily riders, reaches the San Fernando Valley.

While passenger forecasts historically tend to be on the high side for new transit systems, Rhine believes Los Angeles residents will quickly "take" to the downtown line.

"The subway's going to be something new," Rhine said. "When people get used to it, when they see they don't have to fight traffic, they'll really like it."

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Corporations such as ARCO, First Interstate Bank, the Los Angeles Times, Pacific Telephone and Union Bank take advantage of the benefits offered.



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