2.9 TRANSPORTATION

2.9.1 *Existing Conditions*

2.9.1.1 Freeways in the Los Angeles Area

An extensive freeway system serves the City of Los Angeles. The major freeways in the City are described below:

- Interstate-5, the State's main north-south highway. It carries major volumes of truck traffic between Los Angeles and Washington, Oregon, and the Central Valley of California, San Diego and Mexico. Within southern California, Interstate-5 carries commuter traffic between the northern/eastern San Fernando Valley and Central Orange County, through Los Angeles.
- Interstate-10, the main highway running east from the Los Angeles Basin to the central and eastern United States. West of downtown Los Angeles, Interstate-10 carries commuter traffic between Malibu/Santa Monica/West Los Angeles and the employment centers of downtown Los Angeles/Century City/Beverly Hills/the Wilshire Corridor. East of downtown, Interstate-10 carries commuter traffic between the San Gabriel Valley and San Bernardino to Los Angeles together with truck traffic between Los Angeles and eastern cities.
- State Route 60, an east-west commuter route sustaining significant truck traffic between downtown Los Angeles and suburban communities in eastern Los Angeles and Riverside Counties.
- State Route 91, a feeder route carrying truck and commuter traffic to the industrial areas between Interstate-110, Interstate-710, and Interstate-605.
- U.S. Route 101, the State's major coastal highway. In Los Angeles, it provides a commuter route between the downtown area/Hollywood and the southern/ western San Fernando Valley.
- State Route 110, north of downtown Los Angeles, carries commuter traffic between Pasadena/Altadena/Sierra Madre and the downtown area. South of downtown Los Angeles, State Route 110 carries truck traffic between Interstate-5 and the Los Angeles Harbor. It also carries commuter traffic to and from the Palos Verdes Peninsula and the South Bay cities.
- State Route 118, a commuter highway connecting the suburbs of Simi Valley/northwestern San Fernando Valley with Interstate-5 and Interstate-405.
- State Route 134, a commuter highway connecting State Route 101 with Interstate-210, serving the eastern San Fernando Valley/Burbank/Glendale.
- State Route 170, a commuter highway connecting State Route 101 and Interstate-5. It serves the eastern San Fernando Valley communities.

- Interstate-210, connects Interstate-5 in the northern San Fernando Valley with Interstate-10 in the eastern San Gabriel Valley, providing a route by which truckers may bypass the urban congestion of the central Los Angeles Basin. Interstate-210 also serves as a commuter route for the foothill communities of the San Gabriel Mountains.
- Interstate-405, a north-south route supplementing Interstate-5. It carries commuter traffic between the central San Fernando Valley, West Los Angeles, the South Bay, Long Beach, western Orange County, toward San Diego.
- Interstate-605, a north-south route connecting Interstate-210 with Interstate-10, State Route 60, Interstate-5, State Route 91, Interstate–105, and Interstate-405 along the eastern boundary of Los Angeles County. It carries commuter traffic to and from the major east-west highways. I-605 also serves the truck traffic of industrial communities of southeast Los Angeles County.
- Interstate-710, connects Long Beach Harbor with the freeway network and the industrial areas of south Los Angeles County. Interstate-710 also acts as a commuter feeder route to Interstate-10, State Route 60, Interstate-5, and Interstate-105. An extension of I-710 to I-210 is being planned, but there is currently no commitment of construction funds for this "gap closure".
- Interstate-105, opened in 1993 and runs east-west. The I-105 Freeway starts from the Los Angeles International Airport in the west, crosses the I-405, I-110, I-710 and ends at the San Gabriel River Freeway Interstate-605 in the City of Norwalk.

This freeway network is a key component of the national transportation system. The I-5 connects southern California to both Mexico and Canada, while the I-10 connects the region to the east coast of the United States. These two routes, along with the freeways that connect to them, serve personal mobility as well as movement of goods nationally and throughout North America.

2.9.1.2 High Occupancy Vehicle (HOV) Facilities

High Occupancy Vehicle (HOV) lanes encourage carpooling by allowing carpoolers to travel in separate lanes, usually at higher speeds than the mixed–use traffic. Caltrans is responsible for development of High Occupancy Vehicle (HOV) facilities on freeways. The City is responsible for HOV's on City streets and is currently investigating its feasibility of select locations. Caltrans is currently constructing new transitways along the Santa Monica Freeway as well as several other freeways, in addition to existing HOV facilities within or near the City of Los Angeles as follows:

- I-10: between Union Station and El Monte (existing);
- SR-91: between I-110 and I-605 (existing);
- I-405: between I-110 and 120th Street (existing);

- Southbound I-405: between I-5 and Route 101, and between Bellflower and I-605 (existing):
- I-105: between I-605 and I-405 (existing):
- I-210: between State Route 134 and I-710 (existing);

Figure T-1 represents the existing HOV facilities for the City.

2.9.1.3 Street Designations

The City has three categories of roadway classification: major highway (80-84 ft. roadway on 100-104 ft. right-of-way), secondary highway (60-70 ft. roadway on 80-90 ft. right-of-way), and collector (44 ft. roadway on 64 ft. right-of-way). Major highways generally provide four to six lanes of travel and have access to intersecting freeways. Secondary highways typically have four travel lanes, and collector streets provide two travel lanes. Actual widths are often less than standard due to right–of–way availability and other considerations.

Figure T-2 illustrates the Highways and Freeways Plan for the City.

2.9.1.4 Peak Hour Vehicle Trips

Peak periods generally extend from 6:00 a.m. to 9:00 a.m., and from 3:00 p.m. to 6:00 p.m. The remaining hours of the day are considered "off-peak" periods. The single highest hour of traffic occurs between 5:00 and 6:00 p.m. on weekdays. This hour is the focus of analysis in this transportation chapter.

2.9.1.6 Level of Service

Level of service analysis uses traffic volumes and lane capacities to describe operating conditions of the freeways and streets that form the highway network.

LEVEL OF SERVICE (LOS) DEFINITIONS

Level of Service Designation	Condition	Volume/Capacity
A, B	Uncongested operation	0.00 – 0.70
C	Light congestion	›0.70 – 0.80
D	Congested but functional links	›0.80–0.90
E	Severe Congestion	›0.90–1.00
F	Total breakdown with stop and go operation	›1.00

SOURCE: Modified from Intersection Level of Service Definitions, Highway Capacity Manual, 1985.

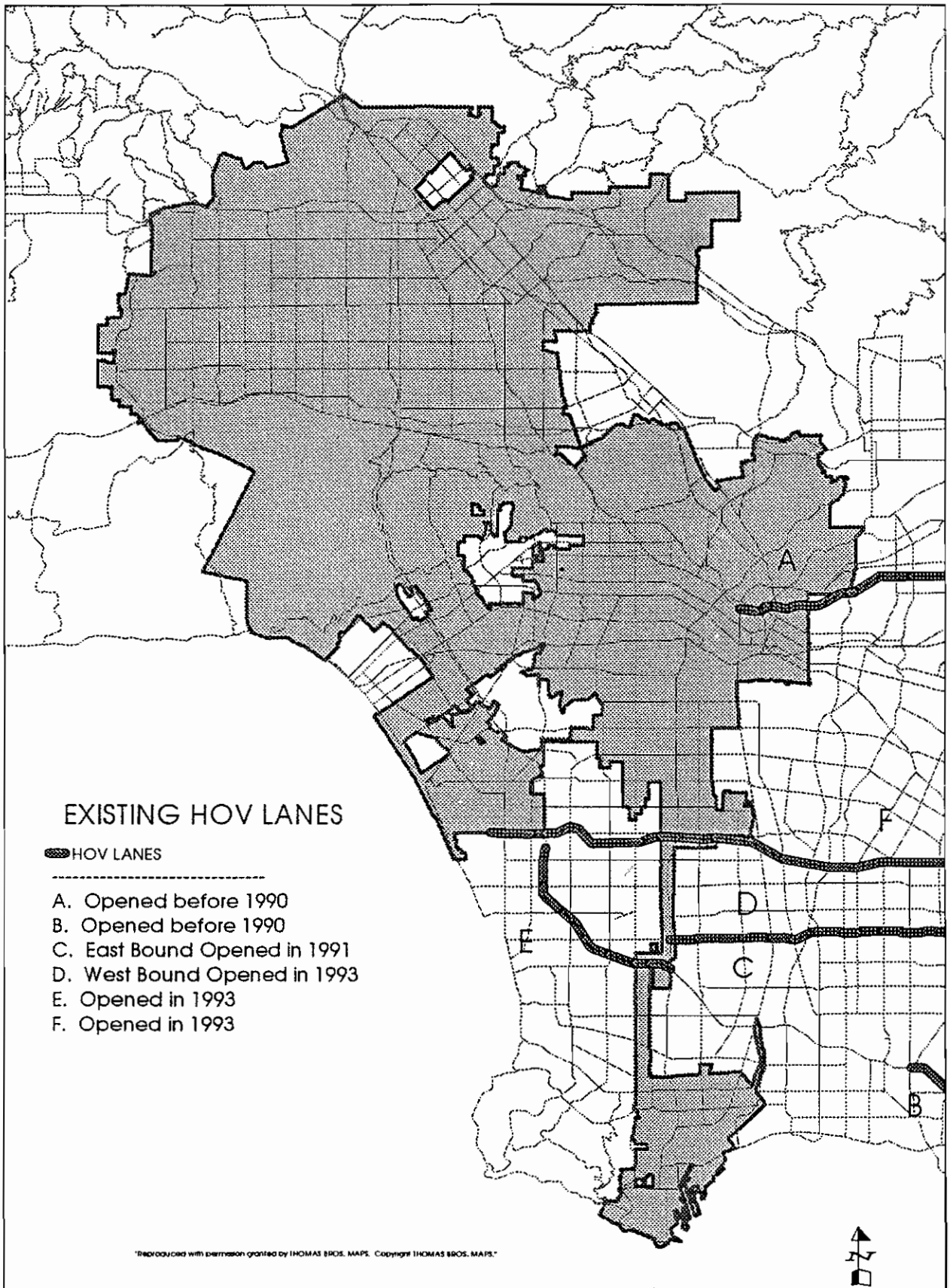
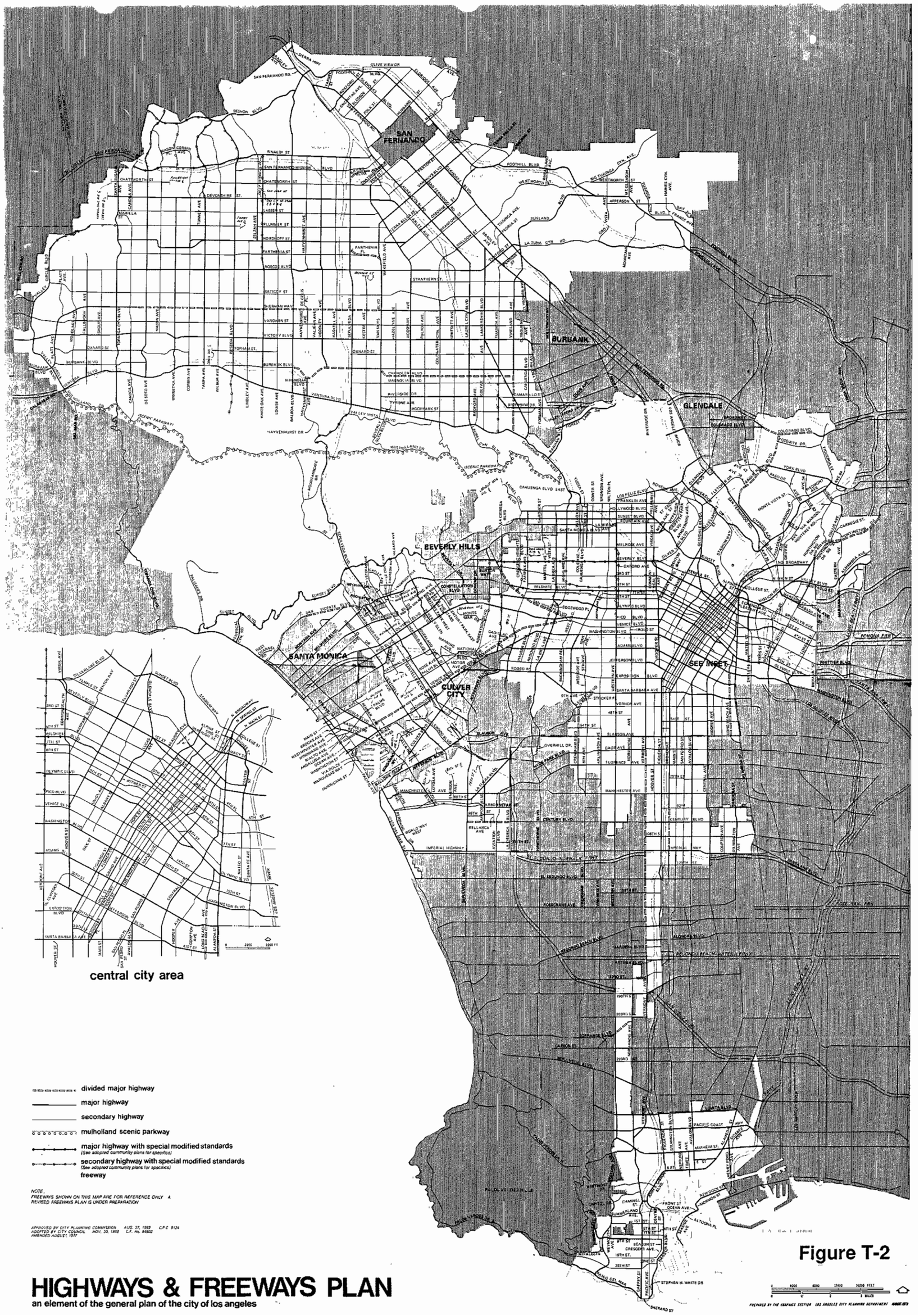


Figure T-1



NOTE:
FREEWAYS SHOWN ON THIS MAP ARE FOR REFERENCE ONLY. A REVISED FREEWAYS PLAN IS UNDER PREPARATION

APPROVED BY CITY PLANNING COMMISSION AUG. 27, 1959 C.P.C. 9124
ADOPTED BY CITY COUNCIL NOV. 28, 1960 C.F. No. 84602
AMENDED AUGUST, 1977

Figure T-2

HIGHWAYS & FREEWAYS PLAN

an element of the general plan of the city of los angeles

PREPARED BY THE GRAPHICS SECTION, LOS ANGELES CITY PLANNING DEPARTMENT

Generally, LOS "D" is the City's standard for transportation planning and design goals. In some instances, where targeted growth is desirable and transit alternatives are adequate, LOS "E" may be satisfactory.

Other effective measures of the level of service include average speeds, vehicle miles of travel (VMT), and vehicle hours of travel (VHT). Using the base year EMME/2 model -- constructed to represent traffic conditions for the year 1990 on freeways, Major Highways, and Secondary Highways -- it is estimated that commuters traveled 5.3 million vehicle miles in approximately 193,000 vehicle hours in the evening peak hour. Average freeway speeds were 35 miles per hour (m.p.h.) and average arterial speeds were 23 m.p.h. in the evening peak hour. Approximately 40% of peak hour travel occurs in congested conditions (level of service E or F).

Intrusion by commuter traffic onto local streets is also a qualitative indicator of freeway and arterial levels of service. As traffic on freeways and Major and Secondary Highways increases, it tends to filter through residential neighborhoods. The Los Angeles Department of Transportation continues to work with neighborhoods that are experiencing these kinds of traffic problems. In some residential areas, traffic channelization and other traffic control devices have been used to make these neighborhoods less conducive for through traffic.

2.9.1.7 Average Vehicle Ridership

In 1988, the Southern California Air Quality Management District (AQMD) instituted Regulation XV that required employers of 100 or more employees to adopt trip reduction programs. The regulation required each employer to institute a trip reduction program that would achieve an Average Vehicle Ridership (AVR) of 1.75 in downtown Los Angeles, 1.5 in the remainder of urbanized areas, and 1.3 in rural parts of the AQMD. AVR measures the extent to which commuters use public transit, carpooling, and other non-single-occupant-vehicle modes of transportation. AVR is calculated by dividing the number of employees who arrive at a site between 6 a.m. and 10 a.m. by the number of vehicles arriving and parking at the same site within the same time period. The 1990 AVR for the City of Los Angeles was 1.31. A number greater than 1.00 indicates that people are arriving at the worksite by alternative modes (e.g., transit, carpooling, vanpooling, bicycling, walking).

Within the City of Los Angeles are four Transportation Management Organizations/Associations (TMOs/TMAs) -- the Twelfth District TMA, the Mid San Fernando Valley TMA, Warner Center TMO, and Westwood TMO. These TMAs/TMOs are publicly-financed non-profit organizations, created to assist employers within their jurisdiction in creating and managing trip reduction programs by providing support services. These organizations work closely with Commuter Transportation Services -- an organization that conducts transportation surveys and ridership analyses and maintains a rideshare database.

2.9.1.8 Bus Transit and Paratransit

Transit services in Southern California vary substantially from those found in many other major cities. While capacity of the combined transit systems is substantial, transit market share is declining in an expanding travel market. This is in spite of a net inflow of low income individuals who are transit dependent. A decline in gas prices combined with increases in transit fares are two major contributing factors of the decline in transit market share. Also, 40% of transit trips are home-to-work trips, which decreased due to the recession of 1990-93.

Since 1980 a comprehensive variety of transit services has been created, composed of regular route systems, Commuter Express, dial-a-ride services for the elderly and handicapped, area shuttles, and taxicab support programs.

The principal component of transit service is provided by the Los Angeles County Metropolitan Transportation Authority (LACMTA). Jurisdictionally, LACMTA's area of service encompasses 2,280 square miles of Los Angeles County, and LACMTA's boardings account for 85% of boardings in the region. LACMTA also operates services in the surrounding counties on a contractual basis.

The following are minimum criteria applied by LACMTA for service spacing and frequency:

Local Service

Population Density per Square Mile	Minimum Wday (weekend) Midday Headway in minutes	Population Coverage *	Route Spacing - Weekday (weekend)
Greater than 12,000	15 (20)	90%	1/2 mile (1 mile)
8,000 - 12,000	20 (30)	90%	3/4 mile (1-1/2 mile
4,000 - 8,000	30 (60)	90%	1 mile (2 miles)
2,000 - 4,000	60 (0)	90%	2 miles (no minimum)
less than 2,000	Based on ridership demand	Based on ridership demand	

*The percentage of people within a particular census tract that are in walking distance to a bus line stop.

- At least one route operating during weekday daylight hours at hourly intervals, shall be provided to each geographic corridor that has over 25,000 residents.

Los Angeles Central Business District-Oriented Corridor Express Service

- Areas with population densities of greater than 8,000 persons per square mile, or cities and L.A. City areas with populations greater than 100,000 will receive all-day express service if they are on the corridor of a CBD-oriented freeway.
- During high demand periods, implementation of additional lines using alternate routes that bypass some intermediate surface routes will be considered.

Peak-Period-Only Express Lines

- Peak-period-only express routes will connect employment centers with population centers that have high travel demand to those employment centers.
- A minimum of five one-way trips per period will be operated in each peak period.

In addition, a wide range of suburban services are provided by the communities of Santa Monica, Gardena, Long Beach, Torrance, Culver City, Montebello, Norwalk, Commerce, Santa Clarita, and Foothill Transit. Express bus service for these outlying communities to and from downtown Los Angeles is available. Additionally, the Orange County Transportation Authority (OCTA) provides service to downtown Los Angeles.

With its Proposition A funds, the City of Los Angeles has become a transit operator, serving over 3 Million boardings annually. Originally intended to accommodate the needs of the elderly and handicapped, these City provided services are being utilized by an increasing number of residents.

The City Department of Transportation Bureau of Transit Programs operates a downtown shuttle program known as the Downtown Area Short Hop (DASH) system. DASH-type operation is also provided within Westwood Village on weekends. Several other circulation systems exist including a rubber-tired trolley system in the Fairfax District known as the Fairfax Trolley; a dial-a-ride service in San Pedro and in the San Fernando Valley; taxicab support programs in Hollywood and the San Fernando Valley; Commuter Express, which provides service for the South Bay, the Westside, and the San Fernando Valley to and from downtown Los Angeles; and a parking shuttle service in Venice during summer weekends. The City also subsidizes Long Beach Transit for the provision of Line 14 operating from the Long Beach Downtown Mall to the San Pedro District and sponsors many contract services through a series of grants that amount to approximately $11 million annually.

2.9.1.9 Rail Transit

In the future, the transit system will also have, as part of its combined network, a system of rail lines. LACMTA has taken the lead in the planning, design and implementation of the Metro Rail system. Rail lines will include the Metro Red Line, a subway running between the Union Station complex and the intersection of Wilshire Boulevard and Alvarado Street, which will serve as an intermediate terminus until Phase II of the Metro Red Line begins operation. The line then would be extended into the San Fernando Valley to the intersection of Lankershim Boulevard and Chandler Boulevard in North Hollywood. A study is underway to extend the subway to the west, along Wilshire Boulevard through Beverly Hills, Westwood, and Santa Monica. Studies are also underway to bring the subway to the West San Fernando Valley. Phase I of the Metro Red Line reported 2 million boardings for FY 93.

The Metro Blue Line, a light rail line, is currently in operation. This system connects downtown Los Angeles with downtown Long Beach. The tunnel connection in downtown Los Angeles between this line and the Metro Red Line is completed and operational. The Pasadena extension of the Metro Blue Line is anticipated for completion in Summer 1998. The Long Beach Blue Line reported 12 million boardings for FY 93.

The 20-mile Metro Green Line is a light rail system that will operate in the median of the Glen Anderson Freeway (I-105). This system is fully automated, controlled through a central computer, and is an operator-less system. This system will not be compatible with other systems and a rider from Long Beach or downtown Los Angeles would have to exit the Long Beach Blue Line and transfer to the Green Line to make a trip to the Los Angeles International Airport or the beach communities. Other light rail lines are being designed to extend to the Marina area, and to the San Fernando Valley. An extension of Metro Rail service is also being planned for the Santa Ana Freeway Corridor.

Metrolink opened in October 1992 and is a commuter rail service geared towards home-to-work trips into downtown Los Angeles from outlying communities such as Pomona, Moorpark, Santa Clarita, Riverside, and Oceanside. In 1993, Metrolink trains served 26.4 Million passenger miles.

Table T-1 lists funded, approved, and planned transit corridors. The funded transit projects are shown on **Figure T–3**.

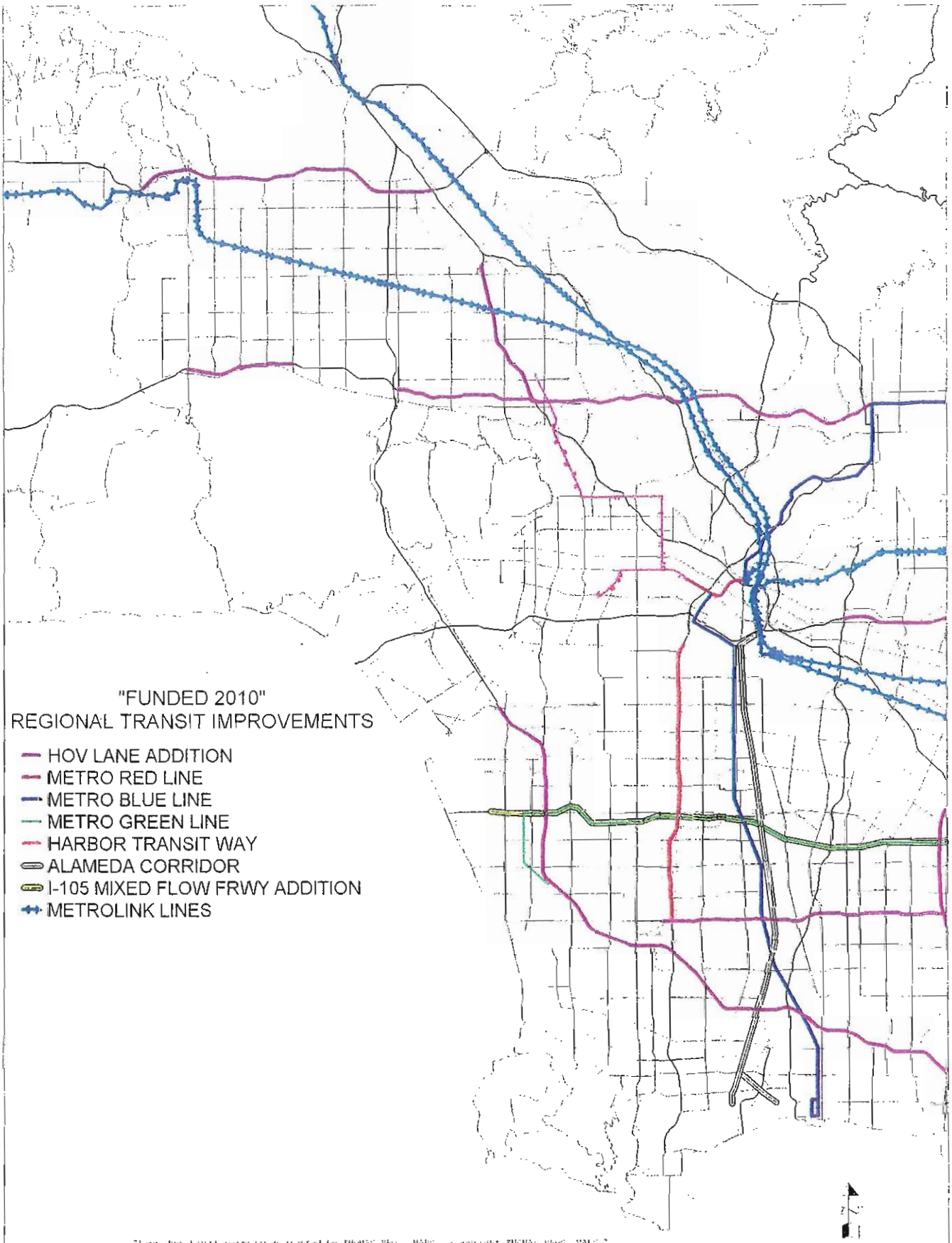
2.9.1.10 The Alameda Corridor

The Alameda corridor project will dramatically improve railroad and highway service to the Ports of Los Angeles and Long Beach; the largest port complex in the United States. The project is designed to facilitate port access while mitigating potentially adverse impacts of port growth, such as traffic congestion, delays at rail/highway grade crossings, train noise in residential areas, and air pollution.

TABLE T-1

FUNDED, COMMITTED, CANDIDATE, AND POSSIBLE TRANSIT CORRIDORS AND TRANSIT STATIONS

Existing	1990	Blue Line to Long Beach
Existing	1992	Metrolink – Orange County – San Bernardino – Riverside – Ventura County – Santa Clarita
Existing	1993	Red Line - Segment 1 (Union Station to Alvarado)
Funded	1994	Green Line - Whittier to El Segundo
Funded	1995	Pasadena Blue Line
Funded	1996	Red Line - Segment 2 (Wilshire and Alvarado to Wilshire and Western)
Funded	1998	Red Line - Segment 2 (Wilshire and Vermont to Hollywood and Vine)
Funded	2001	Red Line - Segment 3 West (Wilshire and Western to Pico and San Vicente)
Funded	2001	Red Line - Segment 3 North (Hollywood and Vine to North
Funded	2001	Red Line - Segment 3 East (Union Station to Indiana Avenue)
Adopted	N/A	Blue Line Extension to Sierra Madre Villa
Adopted	N/A	Red Line Extension - San Fernando Valley Line (subway to Sepulveda Basin/I-405)
Planned	N/A	Red Line Extension (Indiana Avenue to East Los Angeles)
Planned	N/A	Red Line Extension West (Pico and San Vicente to Westwood)
Planned	N/A	Blue Line Downtown Connector



LADOT - ISD

Figure T-3

The corridor is approximately 20 miles long running between downtown Los Angeles and the ports. The project has a highway and a railroad component. The rail element involves consolidating the port-related traffic of three railroads - the Atchison, Topeka and Santa Fe Railway, the Union Pacific Railroad Company, and the Southern Pacific Transportation Company-onto a fully grade-separated right-of-way. Currently the three railroads use four separate tracks that cross nearly 200 busy streets between downtown Los Angeles and the ports. This project will eliminate these highway-railroad conflicts.

North of State Route 91, the railroad corridor will be depressed; i.e., in a trench about 33 feet deep and 47 feet wide. East-west streets will bridge straight across this trench. South of Route 91, the tracks will be at-grade and east-west streets will be raised above the tracks and Alameda Street. The project will be designed to accommodate future electrification of the rail line.

The highway component involves widening Alameda Street south of Route 91 from four to six lanes. New pavement, signals and left-turn pockets will be installed along the segment of Alameda Street between Route 91 and I-10.

2.9.2 *Thresholds of Significance*

2.9.2.1 Highway Network Impacts

Traffic circulation impacts have traditionally been considered significant for a proposed project if the project causes traffic to increase beyond a prescribed amount. For roadways which are already at or near capacity, the threshold is as follows:

Level of Service	Final V/C Ratio	Increase in V/C
E,F	> 0.90	Equal to or greater than 0.01

For this transportation chapter, future levels of service on each roadway segment throughout the City could not be definitely determined, therefore different measures of impacts are being used in this analysis. The measures used to determine a significant Citywide highway impact are as follows:

- Increases in CPA–level travel time factors that are the direct result of growth in Los Angeles. This is calculated by comparing 2010 Framework factors to what would be experienced in the 2010 No–Growth scenario;
- Reductions in accessibility to jobs by CPA, beyond what would be experienced in the 2010 No–Growth scenario.
- Non-attainment of state and federal trip reduction targets (applicable only if targets are not met).

2.9.2.2 Transit Network Impacts

Transit impacts will be considered significant if citywide development results in transit demand that exceeds service capabilities. Currently, about 20 percent of bus service Citywide is reported as overcrowded (demand exceeds loading standards, as reported in the LACMTA Inner City Transit Needs Assessment Study, 1993).

2.9.3 Project Impacts

2.9.3.1 Policy Buildout (Year 2010)

Future Growth – Year 2010

Three scenarios of year 2010 conditions are analyzed in this transportation chapter:

- 2010 No–Growth – This scenario assumes SCAG; market forecasts of population and employment growth outside of Los Angeles, but no growth at all within Los Angeles;
- 2010 Market – This scenario assumes SCAG market forecasts both within and outside of Los Angeles; and
- 2010 Framework – This scenario adds roughly 200,000 employees to the 2010 market forecasts within Los Angeles.

The 2010 market forecasts estimate that, by the year 2010, population in Los Angeles will grow by 24 percent, housing units by 20 percent, and employment by 10 percent. The Framework policy forecast increases employment by another 10 percent. Vehicle travel increases faster than the growth in population and employment as shown in **Figure T–4**. The higher rate of growth in travel is an indication that people are becoming more mobile and using their automobiles more often. It also reflects the fact that traffic will increase in Los Angeles due to regional growth outside the City.

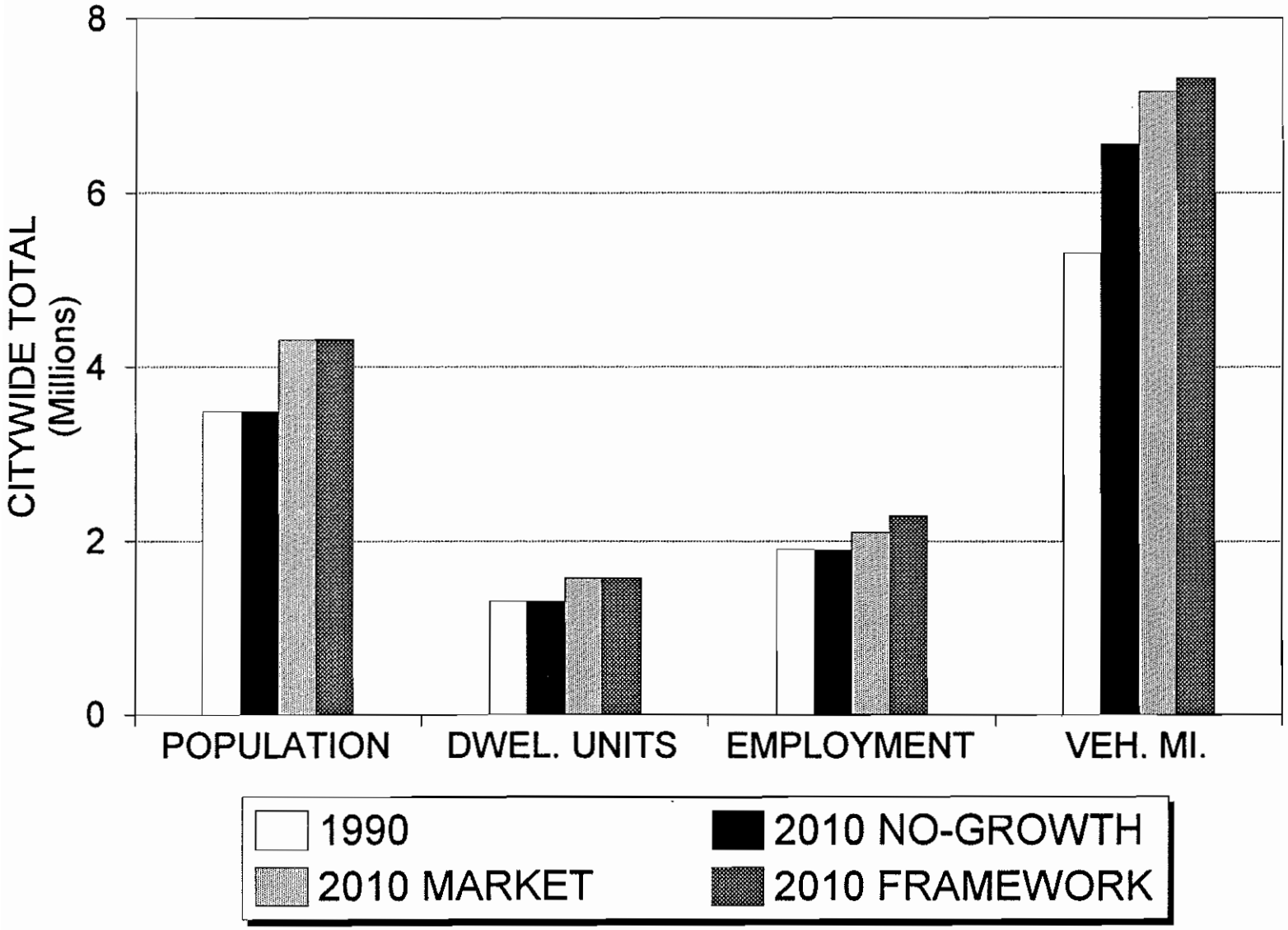
Future Traffic – Year 2010

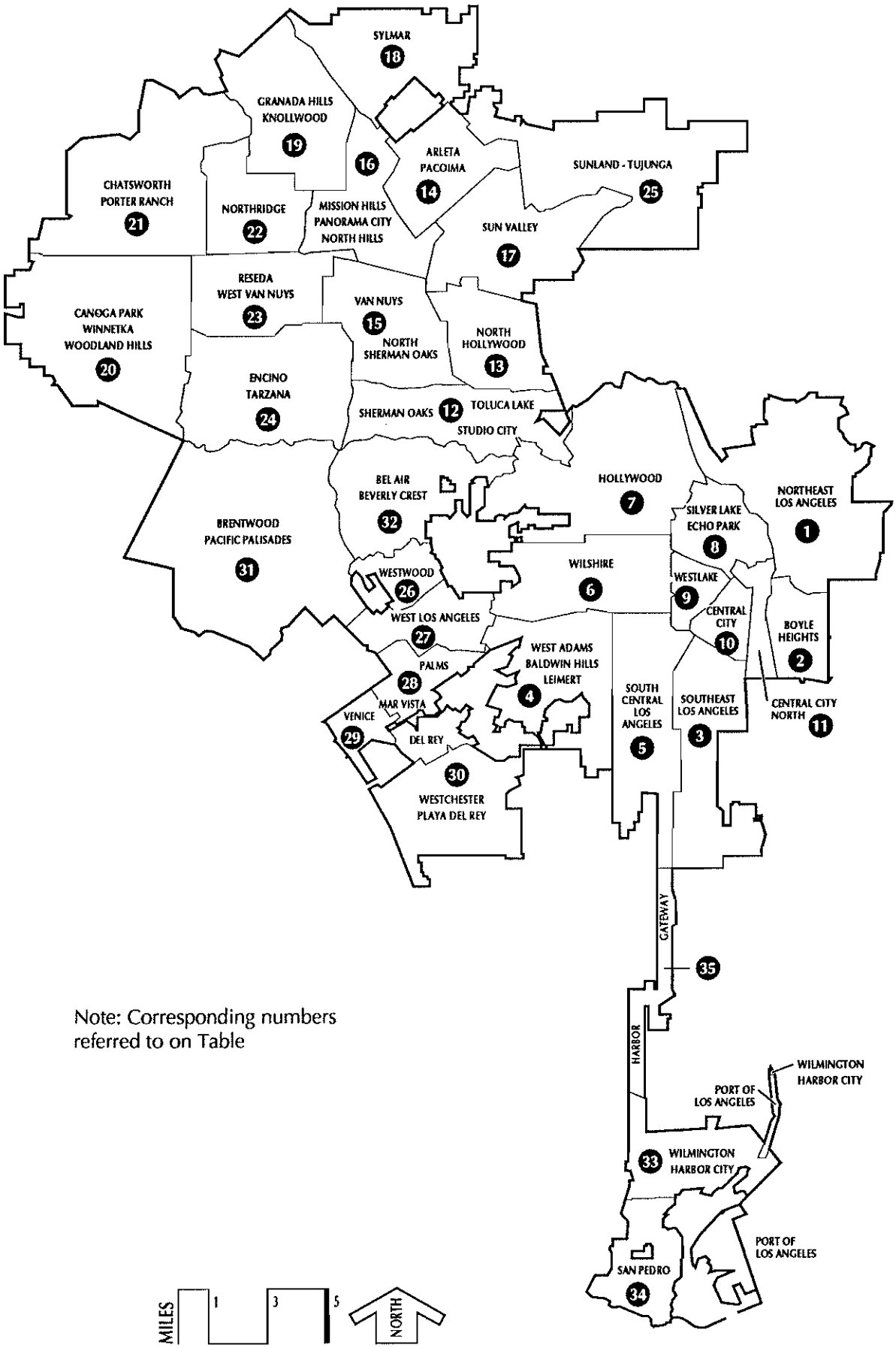
Impacts on congestion levels are analyzed by Community Plan Area. **Figure T–5** shows the 35 Community Plan Areas in Los Angeles.

Growth in traffic will cause significant increases in congestion by the year 2010. Average freeway speeds will be reduced by as much as one–half. Speeds on arterial streets will be affected to a lesser degree. This is shown in **Figures T-6 and T-7**. While traffic congestion is expected to increase throughout the City, the level of congestion is greater in some areas than in others. The area with the greatest freeway congestion in 2010 is in the Community Plan Area of Sylmar (CPA 18). Roughly one–third of all congested vehicle hours Citywide will occur in this one area in 2010. The Granada Hills area, just west of Sylmar, experiences the greatest arterial congestion. This is due primarily to the fact that as freeway speeds decrease,

Figure T-4

GROWTH IN LOS ANGELES





Note: Corresponding numbers referred to on Table

Envicom Computer Graphics

LOS ANGELES
CITYWIDE GENERAL PLAN
FRAMEWORK EIR

Community
Plan Areas

FIGURE T-5

Figure T-6

TRAVEL TIME CHANGE 1990 TO 2010

FREEWAYS

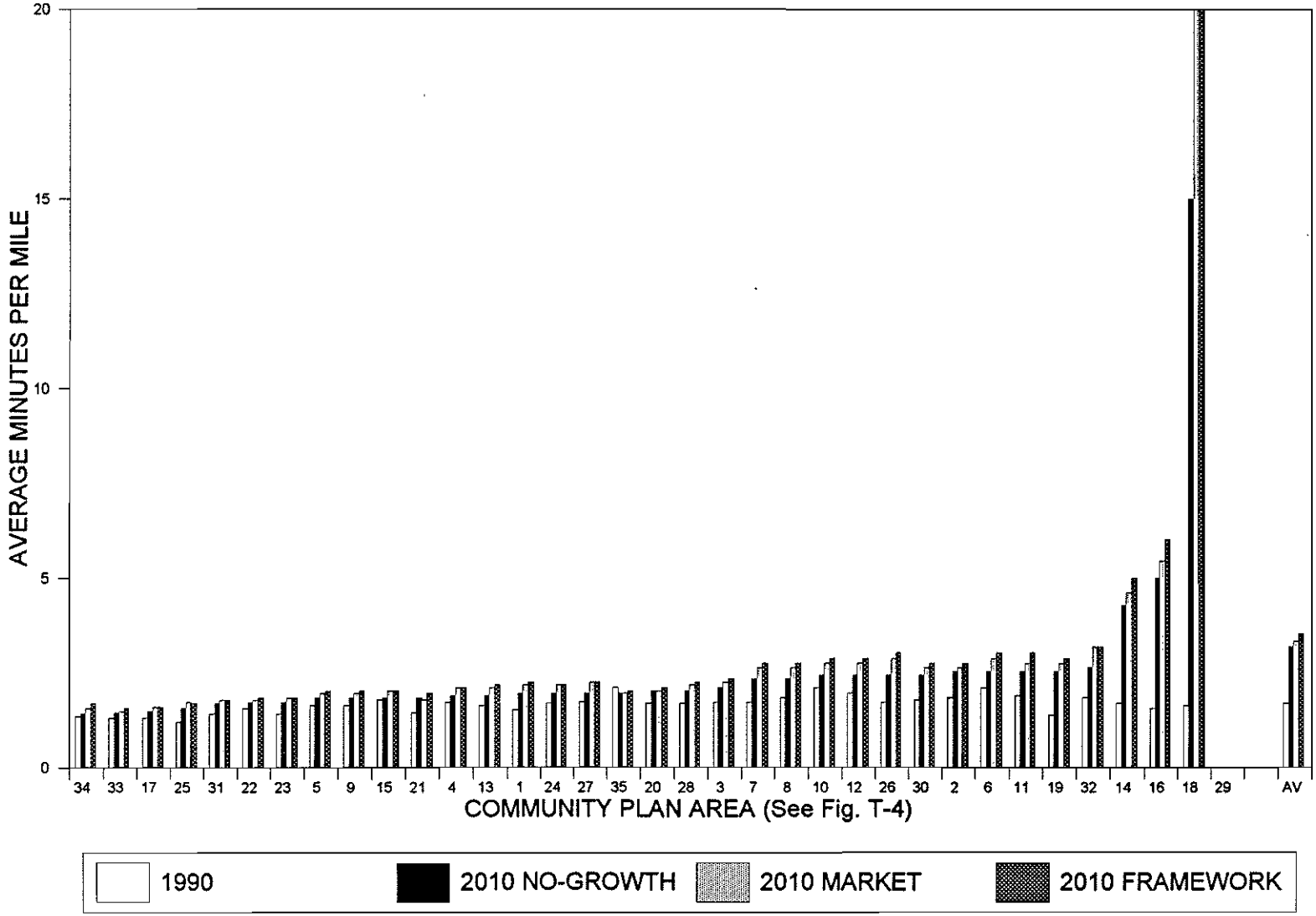
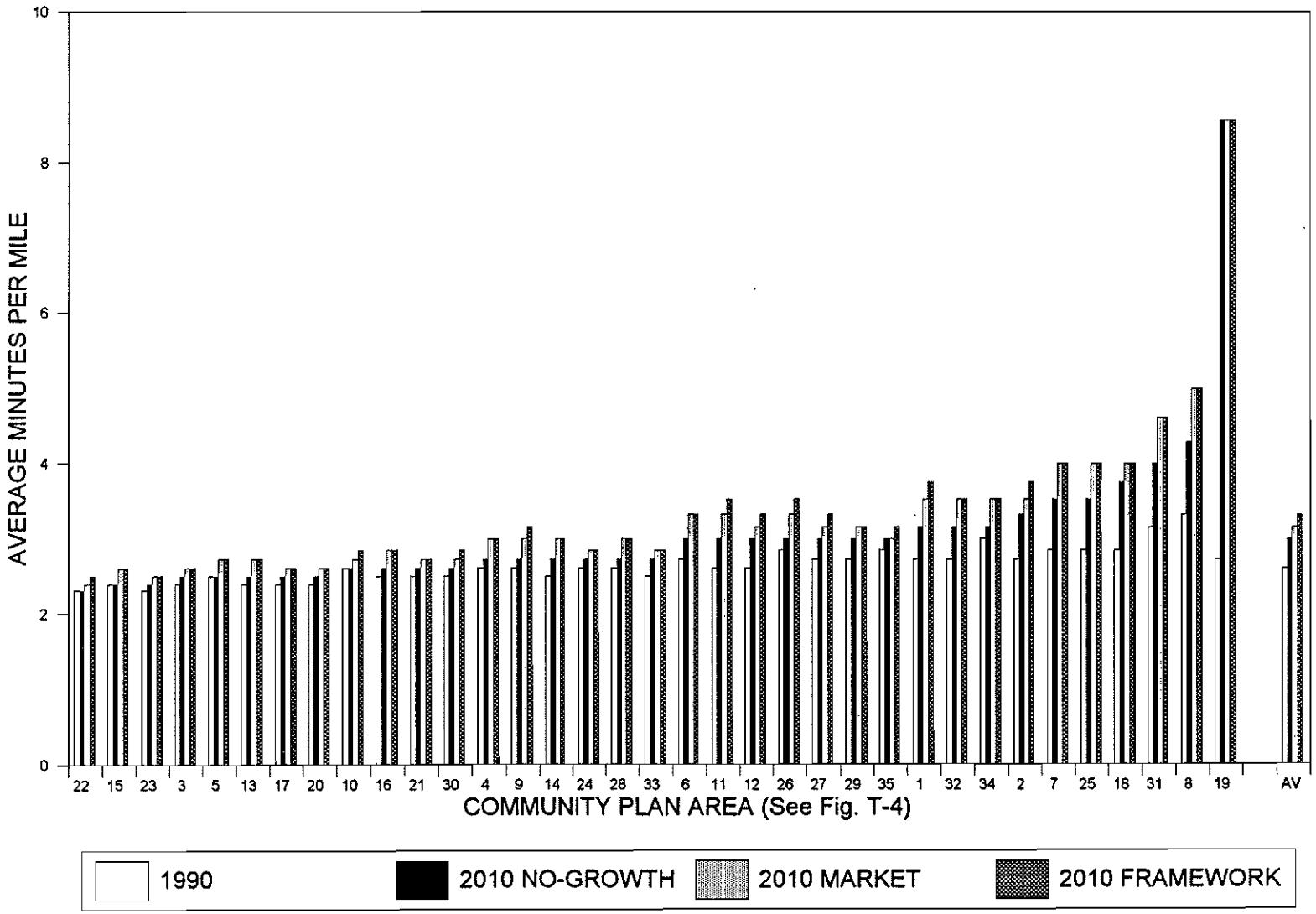


Figure T-7

TRAVEL TIME CHANGE 1990 TO 2010

ARTERIALS



more and more people look for alternative routes on surface streets, often impacting neighborhoods and commercial streets.

The reason that these northern areas experience the greatest future congestion has to do primarily with regional growth outside the City. The 1994 Regional Comprehensive Plan indicates that North Los Angeles County will grow by nearly 680,000 people and 170,000 jobs between 1990 and 2010. This growth will result in a substantial amount of economic interaction between North County and the City of Los Angeles, and demand for travel between the two areas will be much greater than exists today.

Most of the increase in travel times will occur whether or not the City continues to grow. The 2010 No–Growth scenario increases Citywide freeway travel time by 80 percent as much as the 2010 Framework scenario. Similarly, more than 50 percent of the increase in arterial travel time in the 2010 Framework scenario occurs in the 2010 No–Growth scenario.

Future Modal Split – Year 2010

The percentage of trips using transit during the p.m. peak hour will increase from 6.5 percent in 1990 to 8.6 percent in the 2010 No–Growth scenario, as shown in Figure T–8. This is assuming that the existing transportation system is augmented with funded transportation improvements[1] (as shown earlier in **Figure T-3**). With each increment of growth within Los Angeles, the mode split percentage increases a bit more. These percentages, though higher than existing, still fall short of targets that have been established for the City through state and federal mandates. These mandates require the City and the region to achieve:

- A 25 percent increase in the Average Vehicle Ridership (AVR) for work commute trips within four years;
- An average of 1.5 persons per vehicle for all peak hour trips (work and non–work) by 1999; and
- No net growth in mobile source emissions after 1997.

These mandates are created by state and federal air quality legislation, and are designed to reduce pollution. In order to meet these mandates, the City will need to reach much higher transit mode splits than the 2010 market scenario predicts. As **Figure T-8** shows, the City will need to achieve a peak hour transit mode split (including rail, bus, shuttles, and other services) of 15.9 percent in order to meet these mandates. In order to meet these mandates, the City will need to reduce peak hour vehicle trips by 13 percent beyond what is expected from current trends and policies (2010 market).

1 Funded transportation improvements within Los Angeles include the Red Line to North Hollywood, the Blue Line to Pasadena, the Green Line, and HOV lanes on SR–91, I–110, I-118, I-134, I–210, I–405, and SR–170 (See Figure T–3).

The 15.9 percent achievement level target is based on a SCAG analysis in which all approved future rail lines are built, a greatly expanded bus system including jitneys and Smart Shuttles is in place, a substantial highway user fee is charged, parking costs are increased, 11.4 percent of all work trips are replaced by telecommuting, and regulation of employers is expanded. Even with these achievement levels, 25 percent of the vehicle fleet is assumed to be zero–emission–vehicles in order to meet emissions reduction mandates.

Accessibility – Year 2010

Increases in traffic congestion result in a reduction in the average individual's ability to access work opportunities and essential services. This occurs even in the scenarios where population and employment increase. As **Table T-2** shows, the number of work opportunities accessible by auto within 20 minutes is reduced in each of the year 2010 scenarios. The 2010 Framework scenario, however, does increase accessibility (number of jobs within 20 minutes) in about one–third of the Community Plan Areas relative to the 2010 No–Growth scenario.

Impacts of Citywide Growth

Growth within Los Angeles will have only a small traffic impact to regional growth outside the City. Growth within the City also contributes to increased congestion levels. For example, growth in Citywide VMT increases from 24 percent in the 2010 No–Growth scenario to 38 percent in the 2010 Framework scenario. These increases in traffic result in significant impacts.

For all of the highway measures of impact, the incremental traffic due to population and employment growth in Los Angeles causes significant transportation impacts. Travel time factors in the vast majority of Community Plan areas are increased by Citywide growth. Accessibility is reduced in most of the Community Plan areas as well. Finally, the trip reduction targets as mandated by state and federal legislation are not met. As Figure T–4 showed, regional growth will account for over 60 percent of the total VMT increase (over existing conditions) in the 2010 Framework scenario. Figures T–6 and T–7 showed that between 50 and 80 percent of the additional travel time in the 2010 Framework scenario will be due to regional growth.

Even though the direct impacts to Citywide growth are small relative to the impacts to regional growth, they are still significant as defined in this chapter. Mitigation measures are provided in Section 2.9.4.

Figure T-8

TRANSIT TRIPS

AS A PERCENTAGE OF ALL PERSON TRIPS

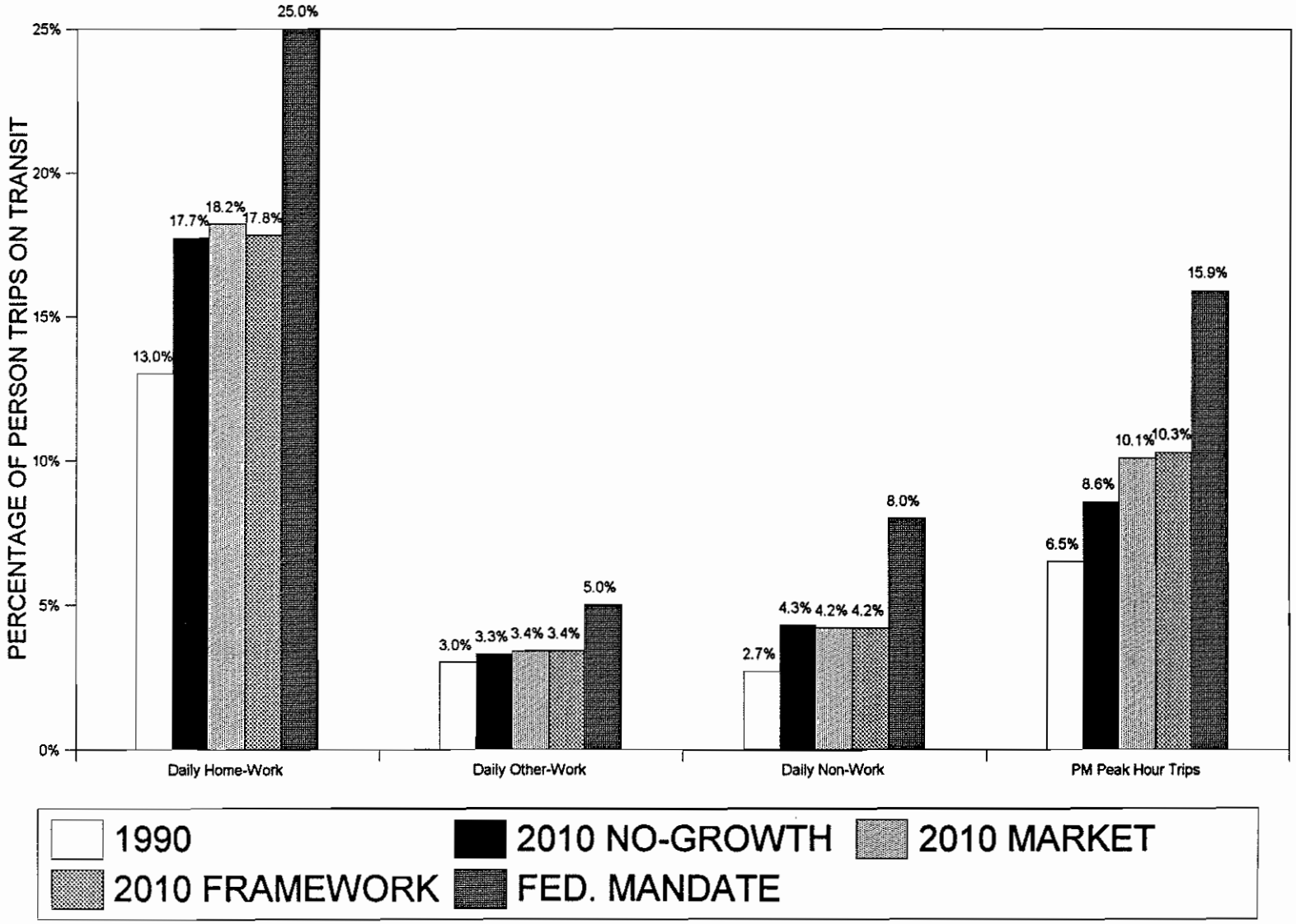


TABLE T-2

CITY OF LOS ANGELES ZONING CODES AND MINIMUM PARKING REQUIREMENTS

LAND USE	EXISTING
Commercial	
Business Commercial	2
Manufacturing Commercial	2
Restaurants, Bars, Nightclubs, General	10
Small (Less than 1,000 SF)	5
Take-out, No Seating	4
Retail	
General (Except for Mini Centers)	4
Furniture and Appliance	2
Trade schools, business colleges, Professional schools, similar commercial schools	20 or 1 space/5 fixed spaces
Health clubs, gyms, dance studios (except in office buildings of over 50,000 SF)	10
Shared Parking	Sum of individual requirements
Auditoriums	1 space/5 seats
Institutions (gvmt office; philanthropic)	2
Medical (hospitals)	2
Sanitariums, Convalesent homes	2 or 0.2/patient bed
Clinics	5
Downtown business district	
Auditoriums	1 space/10 fixed seats
Hospitals, government office	1
Business, commercial, industrial	1

NOTE: All parking ratios are expressed in number of required spaces per 1,000 square feet of area unless otherwise noted.

SOURCE: Los Angeles Planning and Zoning Code, July 1992.

2.9.3.2 Theoretical Buildout

Impacts of Framework Buildout Land Use

Theoretical buildout of land use capacity will not occur until many years after 2010, as discussed in the Land Use section. Growth will continue in the communities surrounding Los Angeles during that same period of time.

As **Figure T–9** shows, population, employment and vehicle travel are expected to increase substantially after 2010, when full buildout is reached. This will result in substantially longer travel times, as shown in **Figures T–10** and **T–11. Table T-3** shows that accessibility to jobs will be much higher in some portions of the City, but lower in other portions. Even though employment is increasing Citywide, acccessability to these jobs decreases in some portions of the City because of increased congestion.

2.9.4 Mitigation Measures

2.9.4.1 Year 2010

The Transportation Improvement and Mitigation Program (TIMP) for the Framework is designed to address numerous goals, objectives, and policies. The following measures, which are included in the TIMP, are designed to reduce the impacts of Citywide growth to a level of insignificance.

1. Trip Reduction / Emission Reduction / TDM Measures

   1.1 Continue progress in trip reduction through implementation of Clean Air Program (CAP) projects to meet or exceed the 2010 Market levels of ridesharing, transit ridership (10.3 percent of peak hour trips), and telecommuting (6.8 percent of peak hour work trips).

   1.2 Proactively support the regional implementation of market incentives to achieve regional levels of trip reduction in state and federal Clean Air Acts, while protecting the economic future of the City and the region. Regional attainment of trip reduction targets may result in the City of Los Angeles reaching the following Citywide levels by the year 2010:

   (a) Home–to–work transit trips – 25 percent;
   (b) Non–work transit trips – 8 percent;
   (c) Peak hour transit trips – 15.9 percent.
   (d) Reduce home–to–work person trips by 11.4 percent through telecommuting and other trip reduction measures.
   (e) An average of 1.35 persons per vehicle for PM peak hour vehicle trips.

   1.3 Pursue the creation of regional Contingency and/or Backstop Transportation Control Measures that utilize market incentives to ensure the ultimate attainment of trip reduction and mobile source emission reduction mandates.

Figure T-9

GROWTH IN LOS ANGELES

FRAMEWORK BUILDOUT

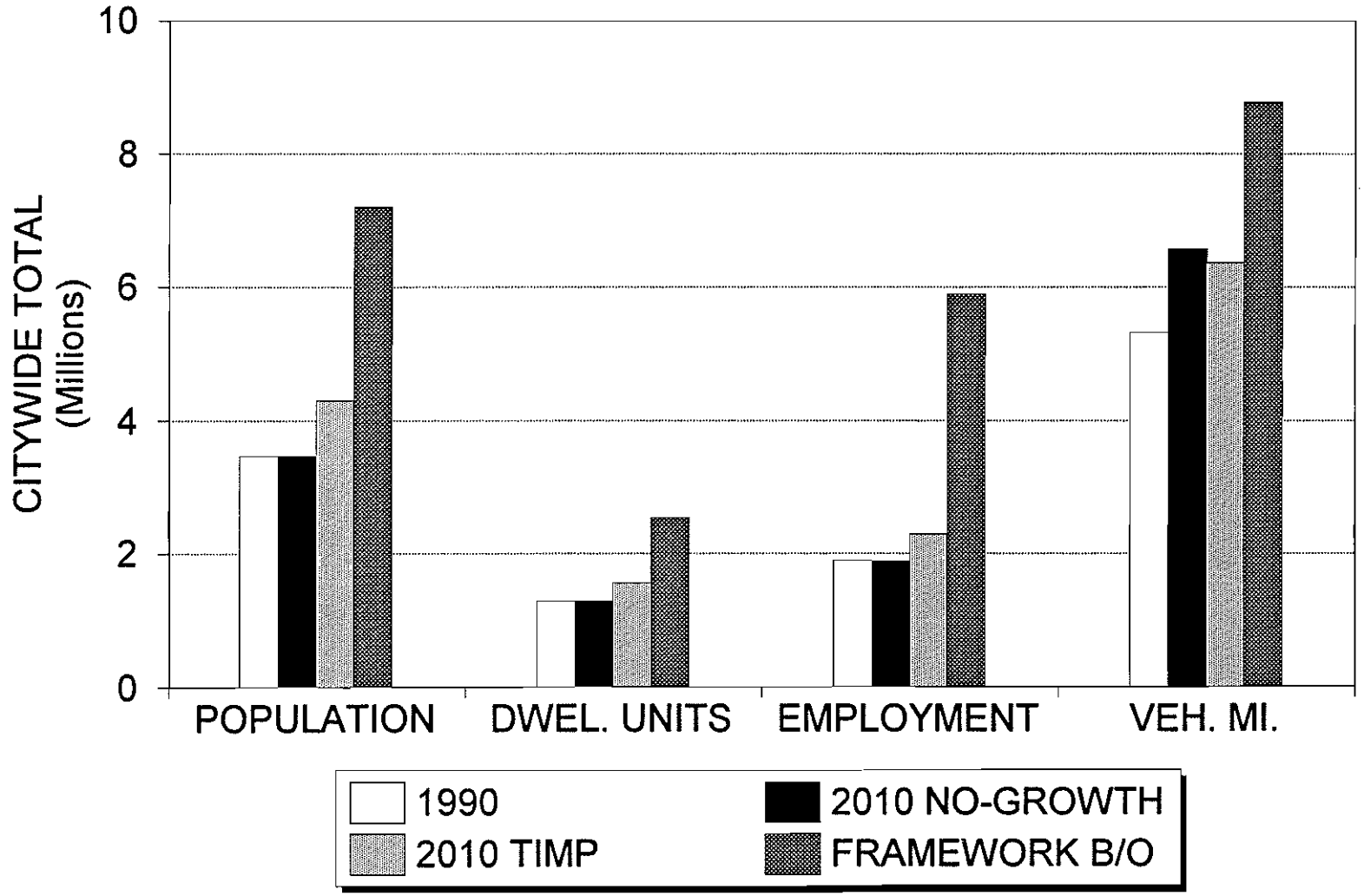


Figure T-10

TRAVEL TIME CHANGE - B/0

FREEWAYS

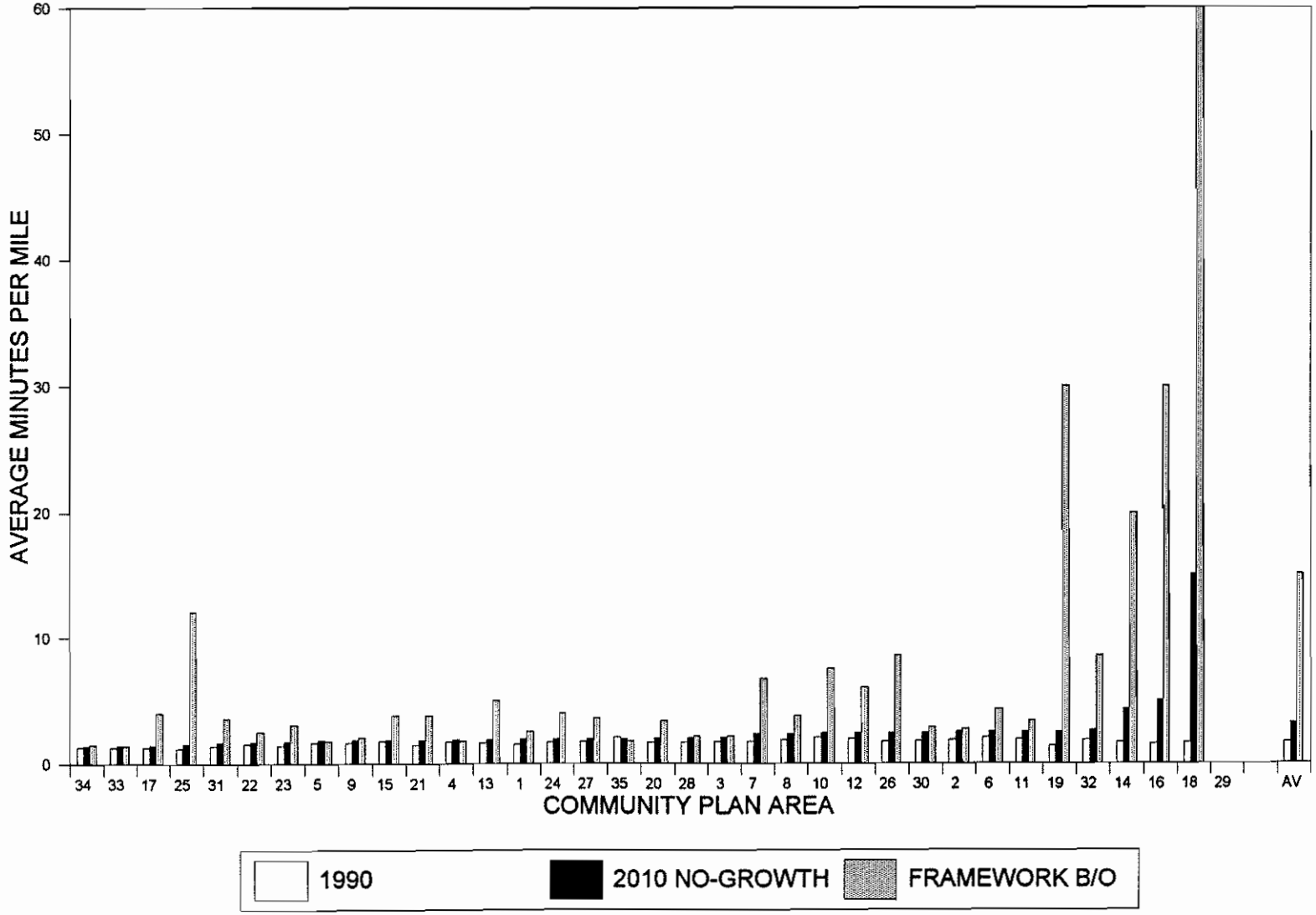


Figure T-11

TRAVEL TIME CHANGE - B/O

ARTERIALS

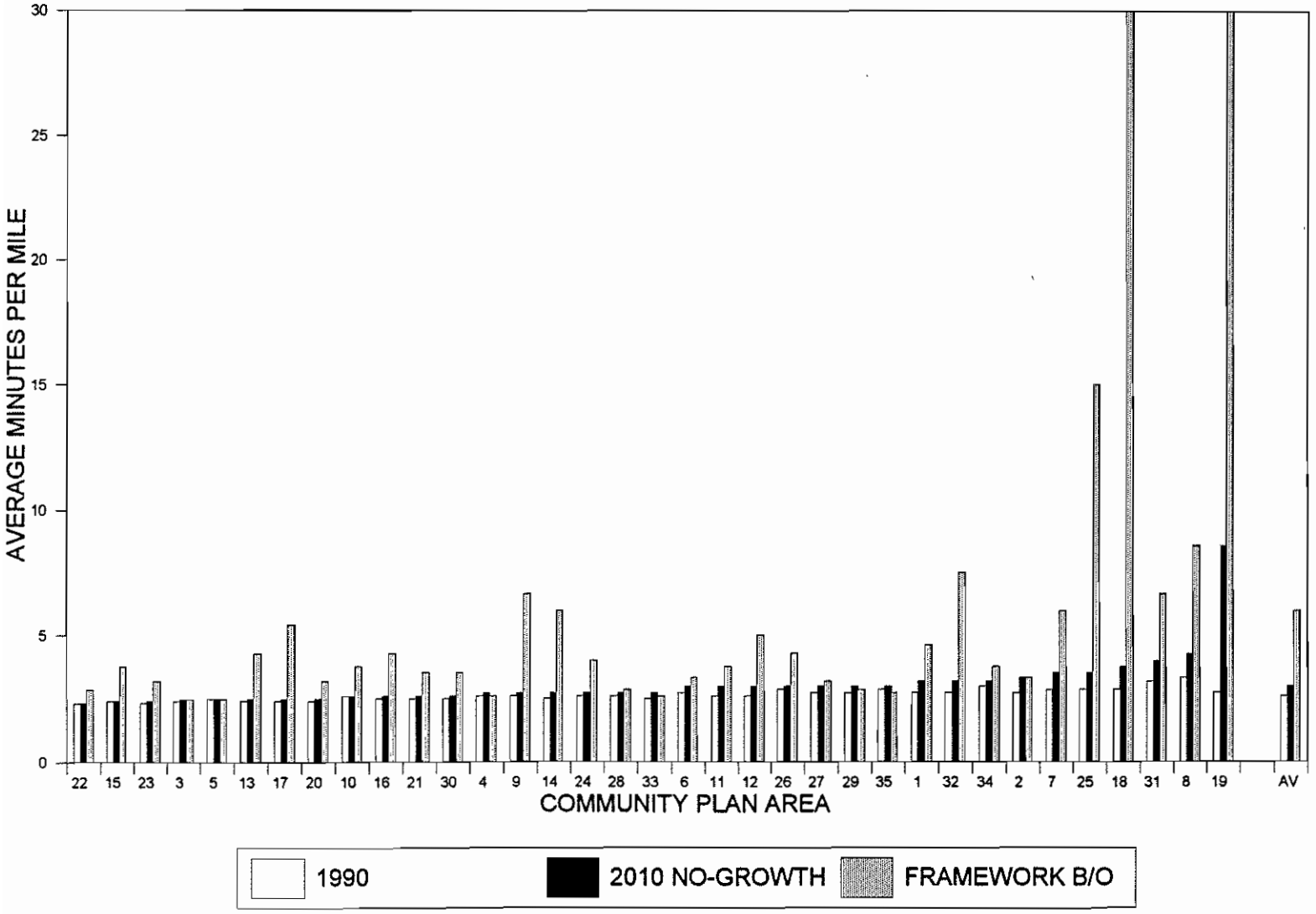


TABLE T-3

Change in Accessibility
1990-2010

	COMMUNITY PLAN AREA	NUMBER OF JOBS WITHIN 20 MINUTES (1000'S) 1990	2010 No Growth	Framework Buildout	NUMBER OF JOBS WITHIN 40 MINUTES (1000'S) 1990	2010 No Growth	Framework Buildout	NUMBER OF JOBS WITHIN 60 MINUTES (1000'S) 1990	2010 No Growth	Framework Buildout
1	NORTHEAST L.A.	812	478	992	2,971	2,363	4,659	5,160	4,513	8,284
2	BOYLE HEIGHTS	1,176	908	2,665	3,904	3,323	6,672	5,564	5,455	9,582
3	SOUTHEAST LA	1,026	916	2,380	3,546	3,359	7,127	5,399	5,076	9,512
4	WEST ADAMS/BALDWIN HILLS	1,206	1,120	3,241	3,365	3,113	6,666	5,032	4,712	8,782
5	SOUTH CENTRAL L.A.	1,128	1,007	3,089	3,605	3,427	7,140	5,332	4,859	9,188
6	WILSHIRE	1,121	993	2,736	3,332	3,099	6,341	5,084	4,666	8,736
7	HOLLYWOOD	960	766	1,044	3,109	2,808	5,162	4,964	4,411	7,908
8	SILVERLAKE/ECHO PARK	1,101	804	1,476	3,424	2,957	5,065	5,416	4,642	8,134
9	WESTLAKE	1,224	1,021	3,174	3,770	3,548	6,727	5,475	4,841	8,828
10	CENTRAL CITY	1,296	1,042	3,172	3,856	3,648	7,128	5,478	5,076	9,208
11	CENTRAL CITY NORTH & EAST	1,294	1,005	3,037	3,790	3,533	6,647	5,494	5,050	9,185
12	SHERMAN OAKS/STUDIO CITY/T.O.	562	482	510	2,503	1,911	1,452	4,069	3,422	1,840
13	NORTH HOLLYWOOD	556	534	720	2,411	1,708	1,584	4,036	3,279	1,745
14	ARLETA/PACOIMA	452	351	239	1,609	984	1,117	3,394	2,483	1,605
15	VAN NUYS/SHERMAN OAKS	541	525	702	2,213	1,404	1,519	3,745	3,138	1,756
16	MISSION HILLS/PANORAMA CITY	501	446	579	1,695	1,015	1,318	3,349	2,689	1,678
17	SUN VALLEY	487	513	436	2,036	1,227	1,317	3,728	2,906	1,715
18	SYLMAR	201	94	76	1,174	757	255	3,086	1,521	815
19	GRANADA HILLS/KNOLLWOOD	364	280	335	1,240	845	846	3,057	1,921	1,315
20	CANOGA PARK/WINNETKA/WOODLAND HILI	303	281	359	948	804	879	2,710	1,821	1,494
21	CHATSWORTH/PORTER RANCH	308	286	361	885	768	938	2,552	1,466	1,408
22	NORTHRIDGE	424	401	583	1,089	881	1,130	2,921	2,027	1,558
23	RESEDA/WEST VAN NUYS	483	454	707	1,433	970	1,211	3,194	2,611	1,673
24	ENCINO/TARZANA	419	378	482	1,733	1,175	1,164	3,424	2,981	1,674
25	SUNLAND/TUJUNGA	116	77	28	1,282	875	233	3,278	2,036	835
26	WESTWOOD	657	628	674	2,777	2,545	4,161	4,335	4,239	7,923
27	WEST L.A./CENTURY CITY	763	697	1,099	2,959	2,630	5,222	4,423	4,408	8,465
28	PALMS/MAR VISTA/DEL REY	751	734	1,411	2,957	2,679	5,470	4,487	4,516	8,526
29	VENICE	458	457	927	2,329	2,126	4,785	4,149	4,204	8,081
30	WESTCHESTER/PLAYA DEL REY	517	534	1,322	3,646	2,552	5,773	4,593	4,437	8,186
31	BRENTWOOD/PACIFIC PALISADES	277	207	131	1,934	1,421	1,383	3,797	3,246	4,504
32	BEL AIR/BEVERLY CREST	437	294	95	2,296	2,028	1,373	3,936	2,541	4,345
33	WILMINGTON/HARBOR CITY*	437	436	970	1,938	1,737	4,078	4,707	4,566	9,179
34	SAN PEDRO	181	156	516	1,123	1,189	2,310	3,965	3,331	7,802
35	HARBOR GATEWAY	655	655	1,175	2,877	2,515	5,862	5,131	5,108	9,604

1.4 Develop an adequate infrastructure for Zero–emission and Low–emission vehicles to support 25 percent of all light–duty vehicles in the City by the year 2010.

1.5 Develop an adequate fiber optics infrastructure to enable continued growth in communications technologies and support the practice of telecommuting to achieve an 11.4 percent reduction in home–to–work trips by the year 2010.

2. Transit Measures

2.1 In order to support the significant increases in transit ridership that achieving trip reduction mandates will require and to mitigate reduced accessibility due to congestion, work collaboratively with other local, regional, state, and federal agencies to expand the Citywide bus system by 5 percent per year:

(a) 11.4 percent of all work commute person trips to be eliminated through telecommuting and other trip reduction strategies;

(b) 25 percent of all work commute person trips to be on transit (including bus, rail, shuttle, "smart shuttle", jitney, and other services);

(c) 8 percent of all non-work person trips to be on transit;

(d) 15.9 percent of all p.m. peak hour person trips to be on transit; and

(e) An average of 1.35 persons per vehicle for p.m. peak hour vehicle trips.

2.2 Support completion of the LACMTA Transit Baseline Projects for rail development by the year 2010.

2.3 Expand Metrolink services between North Los Angeles County and downtown Los Angeles to mitigate the anticipated traffic growth in this corridor.

3. Transportation System Management (TSM) Measures

3.1 Continue to implement the ATSAC and Smart Corridor programs throughout the City, reaching 100 percent of all City streets by the year 2010.

3.2 Continue to grade separate railroad crossings along the Alameda Corridor.

3.3 Put HOV–priority lanes on arterial streets in congested corridors not served by the freeway system or rail, and integrate arterial HOV lanes with the freeway HOV system.

3.4 Implement programs and projects to maintain quality of life by:

(a) Protecting Conservation Areas from the intrusion of traffic from new development or other regional traffic growth; and

(b) Ensuring adequate, safe access to primary, intermediate, and secondary schools through the Safe Route To School and/or other programs.

4. Highway Infrastructure Investment Measures

4.1 Work collaboratively with other local, regional, state, and federal agencies on the development of expanded multimodal transportation capacity between the City of Los Angeles and North Los Angeles County, leading to the implementation of this new capacity by the year 2010.

4.2 Continue the General Plan Transportation Element, including the Highway and Freeway Map and as modified by the designation of pedestrian-oriented roadways and transit-oriented roadways, wherever feasible.

2.9.5 *Level of Impact Significance*

2010 TIMP

The Transportation Improvement and Mitigation Program offers a myriad of mitigation to aid in alleviating the present and future congestion problems within the City. Along with other mitigation proposed in this EIR, Transportation Impacts are mitigated to the extent feasible (Class II).

Figures T–12 and T-13 shows the impact the TIMP measures will have on freeway and arterial travel times. With only one exception, every Community Plan area experiences a reduction or no change in both freeway and arterial travel times. The only exception is in the Harbor Gateway, where the freeway travel time is increased from 1.4 minutes (43 mph) to 1.6 minutes (38 mph). Even the increased travel time in this Community Plan area is one of the fastest times in the City. Based on these findings, the TIMP reduces congestion impacts of Citywide growth to a level of insignificance.

Table T–4 shows the impact of the TIMP on Citywide accessibility. In every case, the TIMP increases accessibility to jobs above the 2010 No–Growth scenario. In fact, between 75 and 85 percent of the Community Plan areas will have accessibility with the TIMP that exceeds current levels. Therefore the TIMP reduces accessibility impacts of Citywide growth to a level of insignificance.

Figure T–14 shows the mode split impacts of the TIMP. The p.m. peak hour target of 15.9 percent is met with the TIMP. Therefore the vehicle trip impacts of Citywide growth are reduced to a level of insignificance.

The TIMP results in transit ridership increasing from 1.1 million daily transit trip–ends (origins plus destinations) to over 2.9 million daily transit trip–ends. Even with the Baseline rail system, this level of transit ridership will require substantial increases in bus service. In order to avoid a significant impact on the transit system, bus service (including shuttles, "smart shuttles," jitneys, and other innovative services) will need to increase by over 110 percent between now and the year 2010. This averages out to an annual increase of 5 percent in transit service miles. The TIMP includes a five percent increase in transit service per year. Therefore the transit impacts of Citywide growth will be reduced to a level of insignificance.

FRAMEWORK BUILDOUT TIMP

The buildout scenario shows continued growth in population, employment, and vehicle travel after the year 2010. The TIMP effectively reverses the current trend, and shows growth in travel to be slower than population and employment growth. Population grows by 67 percent between the 2010 Framework/TIMP scenario and buildout. Employment grows by 157 percent. Vehicle travel increases by only 38 percent.

Figure T-12

TRAVEL TIME CHANGE 1990 TO 2010

FREEWAYS - TIMP

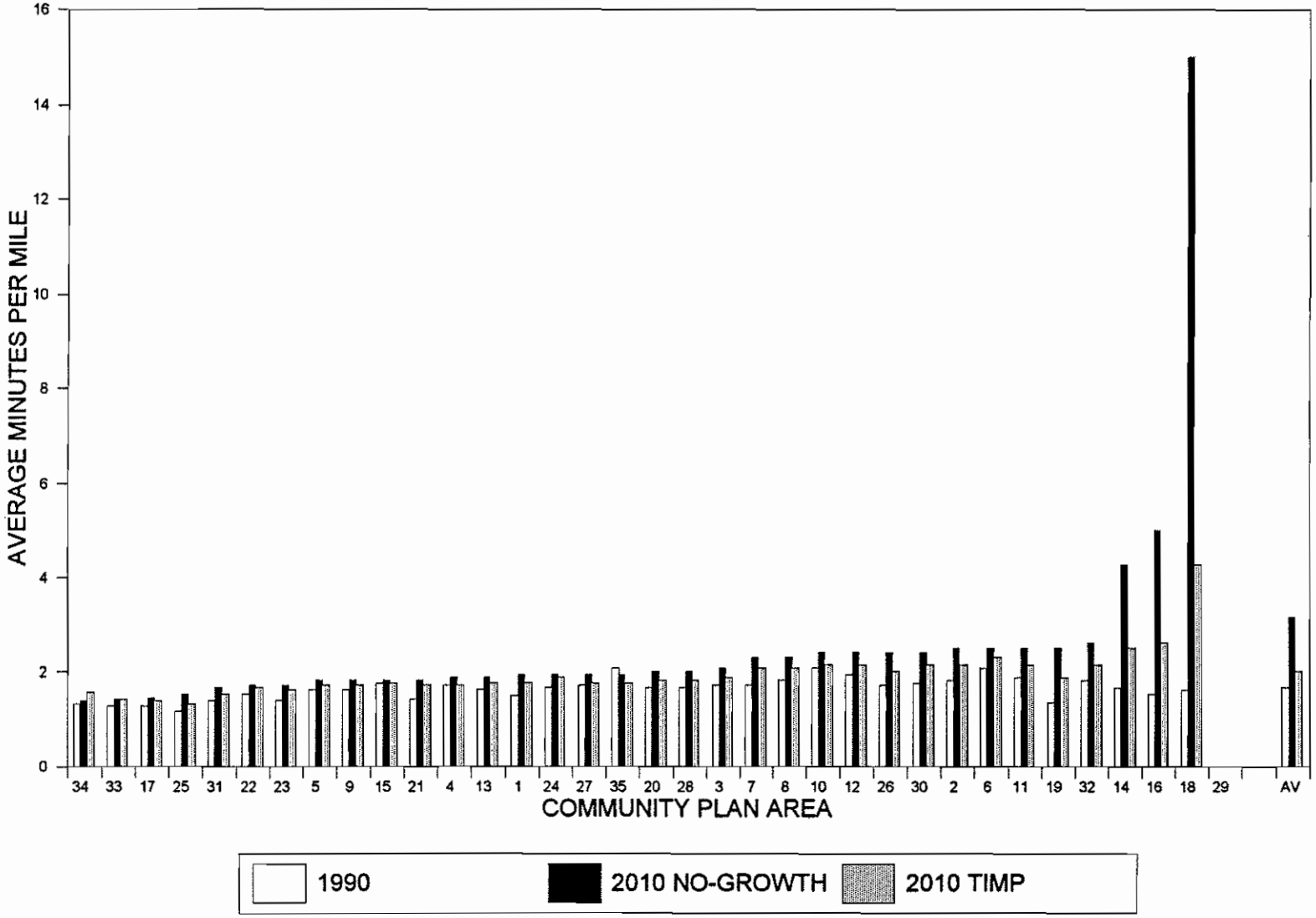


Figure T-13

TRAVEL TIME CHANGE 1990 TO 2010

ARTERIALS - TIMP

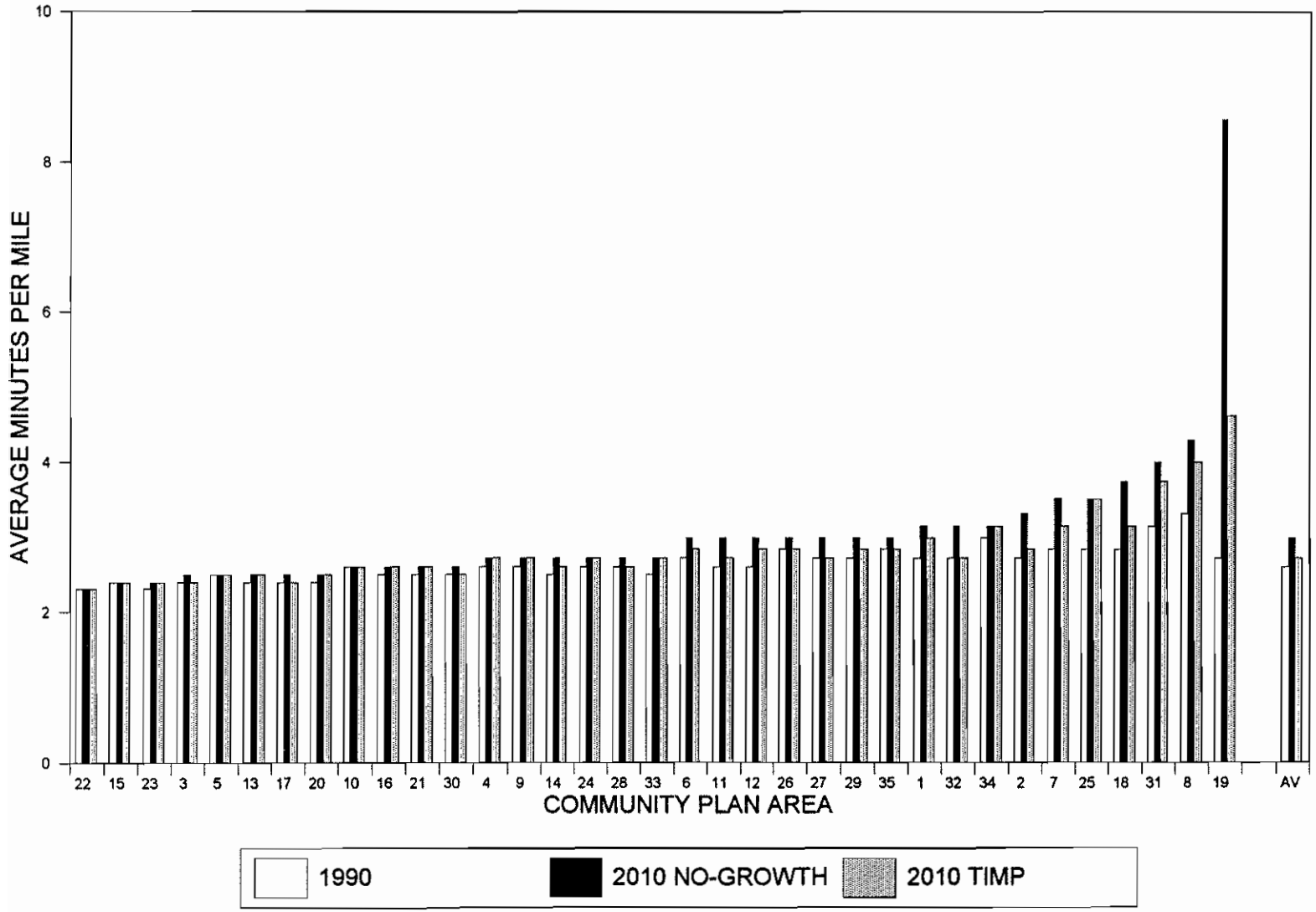


TABLE T-4

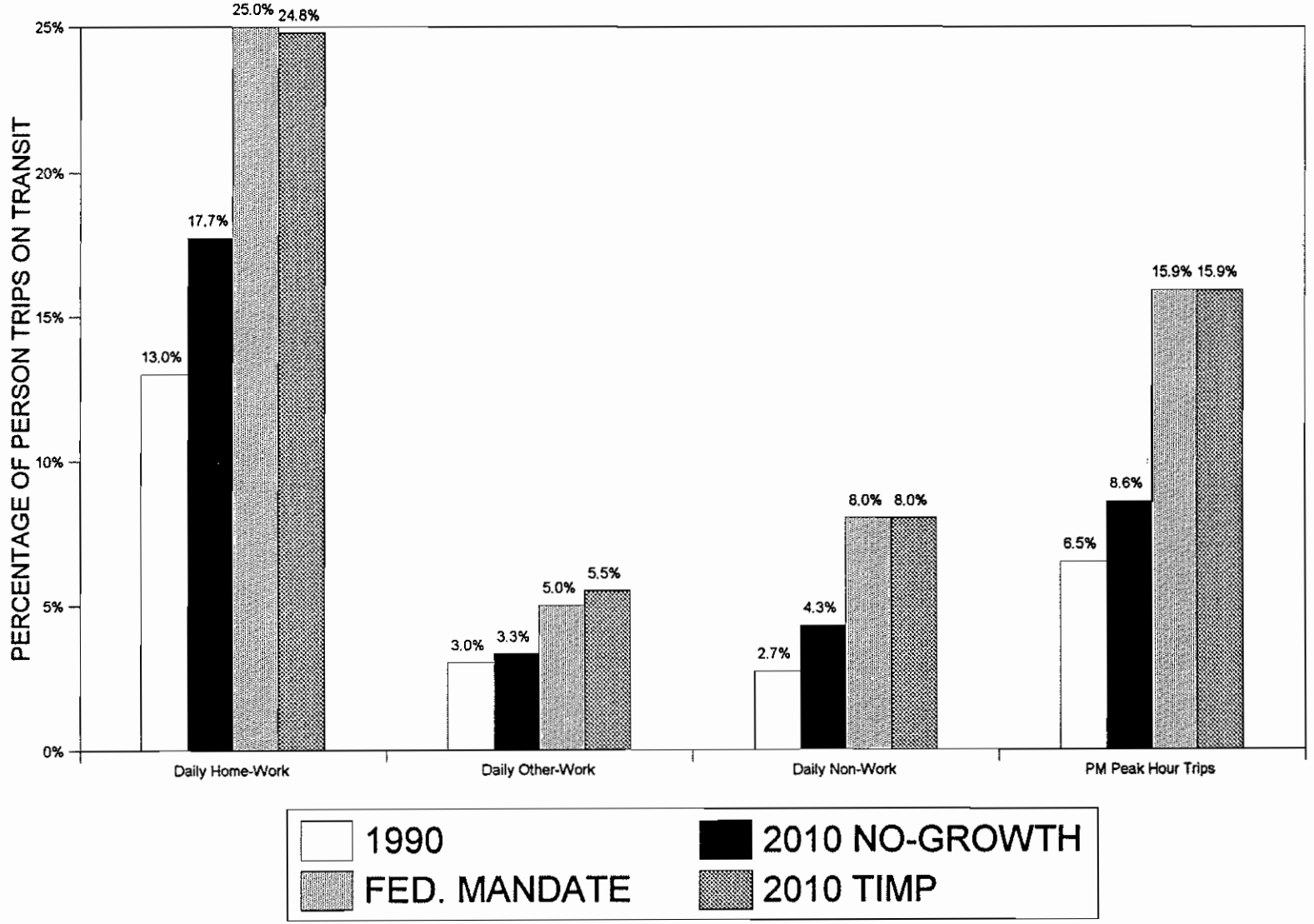
Change in Accessibility
1990-2010-TIMP

	NUMBER OF JOBS WITHIN 20 MINUTES (1000'S)			NUMBER OF JOBS WITHIN 40 MINUTES (1000'S)			NUMBER OF JOBS WITHIN 60 MINUTES (1000'S)		
COMMUNITY PLAN AREA	1990	2010 No Growth	2010 TIMP	1990	2010 No Growth	2010 TIMP	1990	2010 No Growth	2010 TIMP
1 NORTHEAST L.A.	812	478	708	2,971	2,363	3,037	5,160	4,513	5,245
2 BOYLE HEIGHTS	1,176	908	1,170	3,904	3,323	4,119	5,564	5,455	6,265
3 SOUTHEAST LA	1,026	916	1,130	3,546	3,359	3,938	5,399	5,076	5,953
4 WEST ADAMS/BALDWIN HILLS	1,206	1,120	1,428	3,365	3,113	3,685	5,032	4,712	5,269
5 SOUTH CENTRAL L.A.	1,128	1,007	1,275	3,605	3,427	3,992	5,332	4,859	5,681
6 WILSHIRE	1,121	993	1,247	3,332	3,099	3,630	5,084	4,666	5,243
7 HOLLYWOOD	960	766	959	3,109	2,808	3,346	4,964	4,411	5,031
8 SILVERLAKE/ECHO PARK	1,101	804	1,116	3,424	2,957	3,664	5,416	4,642	5,379
9 WESTLAKE	1,224	1,021	1,326	3,770	3,548	4,085	5,475	4,841	5,736
10 CENTRAL CITY	1,296	1,042	1,347	3,856	3,648	4,169	5,478	5,076	6,017
11 CENTRAL CITY NORTH & EAST	1,294	1,005	1,344	3,790	3,533	4,140	5,494	5,050	6,064
12 SHERMAN OAKS/STUDIO CITY/T.O.	562	482	602	2,503	1,911	2,678	4,069	3,422	4,307
13 NORTH HOLLYWOOD	556	534	642	2,411	1,708	2,596	4,036	3,279	4,178
14 ARLETA/PACOIMA	452	351	477	1,609	984	1,358	3,394	2,483	3,449
15 VAN NUYS/SHERMAN OAKS	541	525	625	2,213	1,404	2,230	3,745	3,138	4,041
16 MISSION HILLS/PANORAMA CITY	501	446	562	1,695	1,015	1,481	3,349	2,689	3,627
17 SUN VALLEY	487	513	585	2,036	1,227	1,931	3,728	2,906	3,762
18 SYLMAR	201	94	131	1,174	757	1,049	3,086	1,521	2,8
19 GRANADA HILLS/KNOLLWOOD	364	280	381	1,240	845	1,135	3,057	1,921	3,
20 CANOGA PARK/WINNETKA/WOODLAND HILI	303	281	344	948	804	1,003	2,710	1,821	2,792
21 CHATSWORTH/PORTER RANCH	308	286	340	885	768	948	2,552	1,466	2,360
22 NORTHRIDGE	424	401	499	1,089	881	1,106	2,921	2,027	3,100
23 RESEDA/WEST VAN NUYS	483	454	561	1,433	970	1,390	3,194	2,611	3,529
24 ENCINO/TARZANA	419	378	488	1,733	1,175	1,721	3,424	2,981	3,794
25 SUNLAND/TUJUNGA	116	77	89	1,282	875	1,059	3,278	2,036	2,896
26 WESTWOOD	657	628	750	2,777	2,545	3,162	4,335	4,239	4,954
27 WEST L.A./CENTURY CITY	763	697	861	2,959	2,630	3,268	4,423	4,408	5,045
28 PALMS/MAR VISTA/DEL REY	751	734	898	2,957	2,679	3,300	4,487	4,516	5,070
29 VENICE	458	457	546	2,329	2,126	2,627	4,149	4,204	4,853
30 WESTCHESTER/PLAYA DEL REY	517	534	634	3,646	2,552	3,083	4,593	4,437	5,123
31 BRENTWOOD/PACIFIC PALISADES	277	207	299	1,934	1,421	1,985	3,797	3,246	4,092
32 BEL AIR/BEVERLY CREST	437	294	443	2,296	2,028	2,624	3,936	2,541	4,415
33 WILMINGTON/HARBOR CITY*	437	436	498	1,938	1,737	2,130	4,707	4,566	5,277
34 SAN PEDRO	181	156	178	1,123	1,189	1,370	3,965	3,331	4,146
35 HARBOR GATEWAY	655	655	765	2,877	2,515	3,058	5,131	5,108	6,081

Figure T-14

TRANSIT TRIPS

AS A PERCENTAGE OF ALL PERSON TRIPS



Continued application of the trip reduction programs included in the 2010 TIMP will continue to reduce trips beyond the 2010 objectives that were assumed in this analysis. In addition, new technologies and changes in travel behavior are expected to further reduce the demand for travel. Continuing the expansion of the regional rail and bus/paratransit systems will further assist in reducing the impacts of long term growth. Together, these factors are expected to reduce the impacts of Citywide growth beyond the year 2010.