

STATE ROUTE 2 - DATA SHEET
CALTRANS DISTRICT 8 – SAN BERNARDINO COUNTY
APRIL 20, 2000

The following is an update of existing and future traffic data in San Bernardino County by Caltrans District 8 Transportation Planning. State Route 2 is part of the Interregional Road System (IRRS). However, it is not a high emphasis, focus or gateway route and is a low priority for the County of San Bernardino. Therefore, an updated route concept is not necessary at this time.

1998

Seg. SBd	Post Mile	Limit	Existing Facility	R/U/UB	ADT	Peak Hr %	2-way Peak Hr Vol	Truck Peak Hr %	Direct Split %	V/C	LOS
11	0.0/6.36	L.A./SBd Co.Line to Jct.Rte.138	2C	R	4,500	13	585	1	60	0.35	B

2020

Seg. SBd	Post Mile	Limit	Existing Facility	R/U/UB	ADT	Peak Hr %	2-way Peak Hr Vol	Truck Peak Hr %	Direct Split %	V/C	LOS
11	0.0/6.36	L.A./SBd Co.Line to Jct.Rte.138	2C	R	9,500	10	950	1	55	0.55	E

R/U/UB = Rural, urban, urbanized

ADT = Ave. daily traffic

V/C = Volume capacity ratio

LOS = Level of service

2C = 2-lane conventional highway



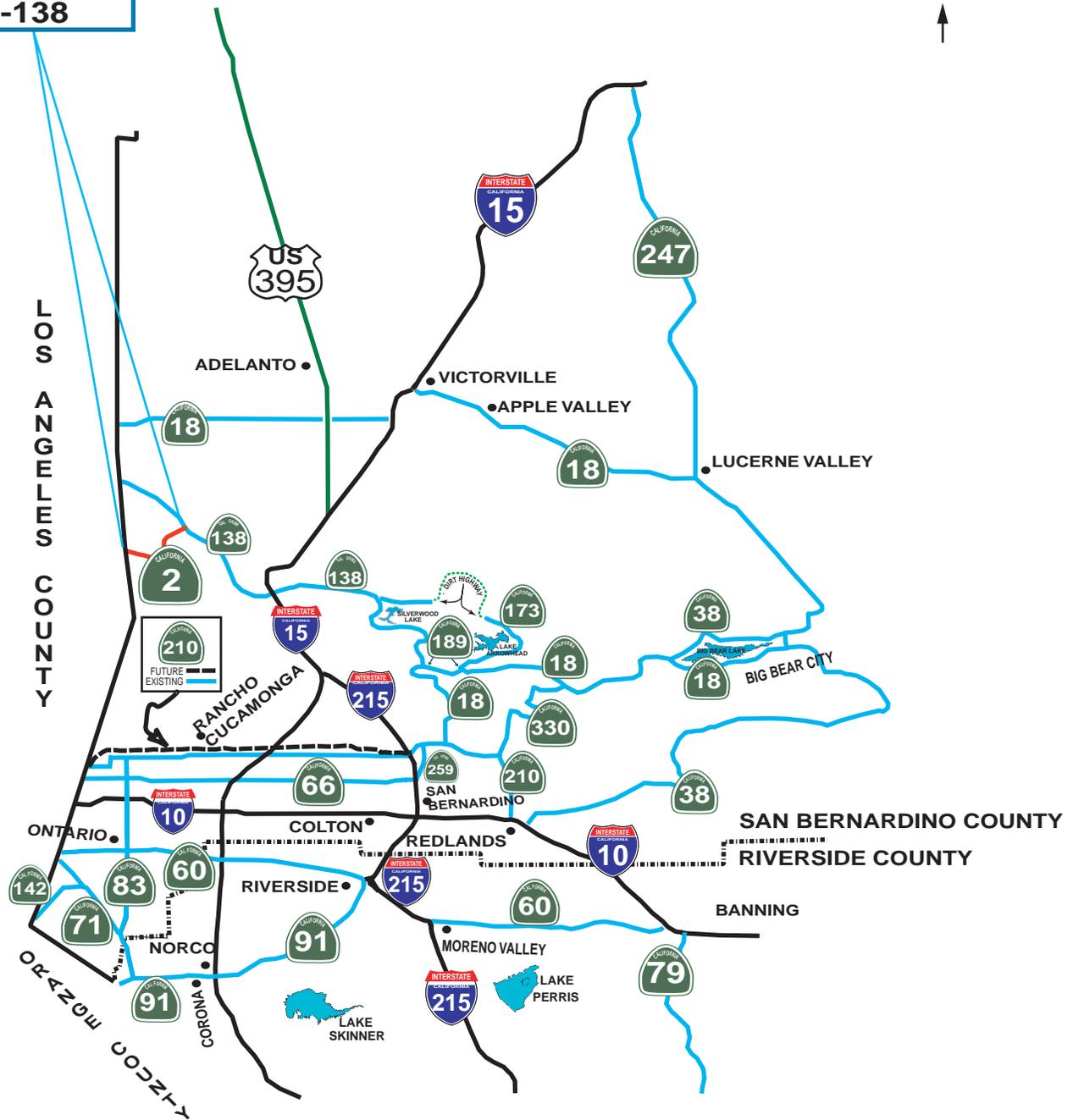
DISTRICT 8

STATE ROUTE 2

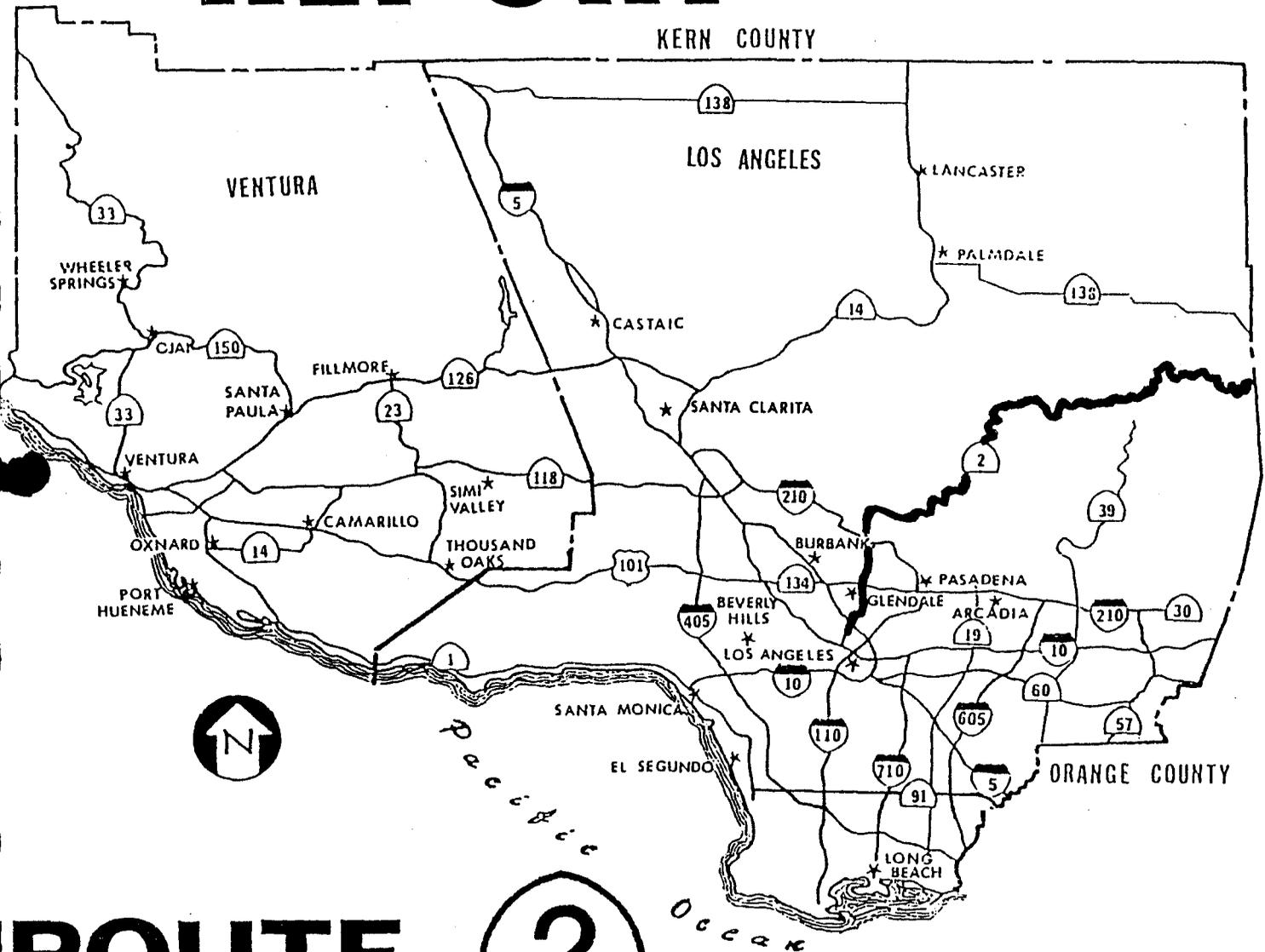
Segment Map



Segment 11
PM 0.0/6.36
L.A./SBd Co.
Line to Jct.
SR-138



ROUTE CONCEPT REPORT



ROUTE 2

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

DISTRICT 7

TRANSPORTATION PLANNING

State of California

Business and Transportation Agency

M E M O R A N D U M

Date: March, 1991

File: 07-LA-2 PM L0.0/12.74
07-LA-2 PM 12.75/82.57
08-SBD-2 PM 0.00/6.36

To: Lew L. Bedolla
Deputy District Director
Planning and Public Transportation

From: DEPARTMENT OF TRANSPORTATION
District 7 - System Planning

Subject: Approval of Route 2 Route Concept Report

Submitted for your review and approval is the Route Concept Report for Route 2.

This approved Route Concept Report will serve as the Department's basic guide to the development of this route.

Approved by:



Lew L. Bedolla
Deputy District Director
Office of Plan. and Pub. Transp.

ROUTE CONCEPT
REPORT

LA ROUTE 2

SANTA MONICA BLVD/ ALVARADO BLVD/ GLENDALE BLVD

GLENDALE FREEWAY
ANGELES CREST HIGHWAY
07-LA-2 P.M. 10.0/12.74
07-LA-2 P.M. 12.75/82.27

SBD ROUTE 2
08-SBD-2 P.M. 0.00/6.36

ROUTE CONCEPT REPORT SUMMARY
DISTRICT 7
ROUTE 2

Route Concept

<u>Seq.</u>	<u>Limits</u>	1988 <u>Fac.</u>	1988 <u>LOS</u>	2010 <u>LOS</u>	Con. <u>Fac.</u>	Imp. <u>LOS</u>	Con. <u>LOS</u>	Ultimate <u>Tr. Corr</u>
1	LA Rt.1&10 to Rt.405	4C	F	F	6C	E	D	6C
2	LA Rt.405 to Rt.170	4C	D	F	6C	D	D	6C
3	LA Rt.170 to Rt.101N	5C*	C	D	5C*	D	D	5C
4	LA Rt.101S to Gln.Bl.	5C*	F	F	5C*	F	F	5C
5	LA Gln.Bl.to Beg.Fwy	5C*	F	F	8C	F	F	8C
6	LA Beg.Fwy to Rt. 5	8F	B	E	8F+HOV	C	C	8F+HOV
7	LA Rt.5 to Rt. 134	8F	F0	F0	8F+HOV	C	C	8F+HOV
8	LA Rt.134 to Foothill	8F	C	E	8F+HOV	C	C	8F+HOV
9	LA Rt.210 to Ang.For.	4C	B	D	4C	D	D	4C
10	LA Ang.For.to SBD Co.Ln	2C	B	B	2C	B	C	2C
11	SBD LA Co.Ln.to Rt.138	2C	B	B	2C	B	C	2C

Concept Rationale

Within District 7, existing and projected peak period operating conditions on the majority of the transportation facilities in the metropolitan area are usually less than desired. Typically, existing Level of Service (LOS) conditions are F0 or lower. Anticipated growth rates in housing, population and employment translate to ever increasing travel demand. Constraints, environmental concerns, physical limitations, lack of right of way, and funding limit the opportunities to improve future travel conditions significantly over existing levels. As a result, a LOS of F0, peak period congestion existing for up to one hour, is the minimum performance accepted on the metropolitan freeways in the district, and LOS D on conventional highways.

Deficiencies

An operating deficiency occurs when the existing or projected LOS is below the concept LOS. In addition, a deficiency occurs on urban freeways when the LOS is below E or F. The table below list the existing and projected operating deficiencies for Route 2. The deficiencies are primarily due to demand to travel on the route exceeding the capacity:

<u>Seq.</u>	<u>Limits</u>	1988 <u>Fac.</u>	1988 <u>LOS</u>	2010 <u>Fac.</u>	2010 <u>Imp.</u>	Concept <u>LOS</u>
1	Rt. 1/10 to Rt. 405	4C	F	6C	E	E
2	Rt. 405 to Rt. 170	4C	D	6C	D	D
4	Rt. 101S to Gln.Bl.	5C*	F	5C*	F	F
5	Gln.Bl. to Beg.Fwy.	5C*	F	8C*	F	F
7	Rt. 5 to Rt. 134	8F	F0	8F+2 HOV	C	C

*Indicates enhanced capacity through restricted parking

I. STATEMENT OF PLANNING INTENT

This Route Concept Report (RCR) is a planning document which describes the Department's basic approach to the development of Route 2. Considering reasonable financial constraints and projected travel demand over a 20 year planning period, the RCR defines an appropriate type of facility and level of service for this route. The object of the effort is to provide a better basis for the development of the State Transportation Improvement Program and for determination of the appropriate concept for future highway projects.

Route Concept Reports are prepared by District staff referring as needed to local and or regional agency studies for support data. They will be updated as conditions change or new information is obtained.

The Route Concept Report is a preliminary planning phase that leads to subsequent programming and the project development process. As such, the specific nature of proposed improvement (i.e., roadway width, number of lanes, access control, etc.) may change in later project development stages, with final determination made during the project report and design phases. Roadway widths, as discussed in the RCR's are used for the purpose of estimating improvement costs, and may change depending upon operating conditions and design standards at the time of actual development.

II. ROUTE ANALYSIS

Route Description

Pursuant to Statutes relating to the California Department of Transportation, Route 2 is from: (a) Route 1 near Santa Monica to Route 101; (b) Route 101 to Route 138 via Glendale and Wrightwood.

Santa Monica Boulevard (Segments 1-3)

This portion of Route 2 originates in the City of Santa Monica at its junction with Route 1.

Alvarado Boulevard/Glendale Boulevard (Segments 4-5)

Route 2 picks up again following a break in route in the City of Los Angeles at its junction with Route 101.

Glendale Freeway (Segments 6-8)

The Glendale Freeway makes up a portion of Route 2 at the Glendale Boulevard terminus and proceeds on to Foothill Boulevard.

Angeles Crest Highway (Segments 9-10)

Following the second break in the route near the east junction of Routed 210, Route 2 continues via Angeles Crest Highway (a mountainous two lane conventional highway) traversing the San Gabriel Mountains.

Route 2 - San Bernardino County (Segment 11)

Route 2 continues at the LA/SBD County Line as a 2-lane conventional highway through the community of Wrightwood and terminates at Route 138.

Route Purpose

The purpose of the route is shown in the following table:

<u>Seg.</u>	<u>Limits</u>	<u>Route Purpose</u>	<u>Facility Type</u>
1	Rte. 1 to Rte. 405	Commute/Recreation	Conv. Hwy.
2	Rte. 405 to Rte. 170	"	"
3	Rte 170 to Rte. 101N	"	"
4	Rte. 101S to Glendale Bl.	"	"
5	Glendale Bl. to Beg. Fwy.	"	"
6	Begin Fwy. to Rte. 5	"	Freeway
7	Rte. 5 to Rte. 134	"	"
8	Rte. 134 to Foothill Bl.	"	"
9	Rte. 210 to Angeles For.	"	Conv. Hwy.
10	Angeles For. to SBD Co. Ln. Recreation	"	"
11	LA/SBD Co.Ln. to Rte. 138 Recreation	"	"

Route Segmentation and Functional Classification

Route 2 is examined in eleven segments for traffic analysis, connections to local streets or State highways, and freeway interchanges. The criteria for segmentation and function class for each segment of the route is listed below:

<u>Seg.</u>	<u>Criteria</u>	<u>Function Class</u>
1-3	Fwy to Fwy I/C	P4-Principal Arterial/no access control
4	Fwy/Conv. Hwy.	P4-Principal Arterial/no access control
5	Conv/Fwy. I/C	P3-Principal Arterial/no access control
6	Conv to Fwy.	P1P-Extension of rural PA into urban
7-8	Fwy. to Fwy. I/C	P1P-Extension of rural PA into urban
9	Fwy. to Conv. Hwy.	P1M-Extension of rural MA into urban
10	Urban/Rural	MA -Minor arterial in the rural area
11	County Line	MA -Minor arterial in the rural area

Land Use

Land use along the Route 2 corridor is varied and includes residential and commercial usage. The corridor comprises

a number of major traffic generators and attractions. These are:

- o Beaches, recreation facilities, ski resorts
- o University of California at Los Angeles
- o Century City
- o Commercial area of Century City, Hollywood and Beverly Hills, LACBD, Eagle Rock Plaza
- o Dodger Stadium
- o Glendale College
- o Descanso Botanical Gardens

The table below shows land use density, growth, of future growth and local development plans for growth on the route:

<u>Seg.</u>	<u>Density</u>	<u>Land Use</u>	<u>Growth</u>	<u>Source of Future Growth</u>	<u>Local Development Plans</u>
1-3	Urban	Residential/ Commercial	Moderate	Infilling/ Recycling	Minimal
4-8	Urban	Residential/ Commercial	High	Infilling/ Recycling	Minimal
9-10	Rural	Mountainous	Low	---	None

Route 2 traverses four Southern California of Governments (SCAG) Regional Statistical Areas, (RSA's). Growth data for these areas is illustrated for population, employment and housing respectively, in Graphs 1, 1A, 1B and 1C on pages 4 through 7 of this RCR.

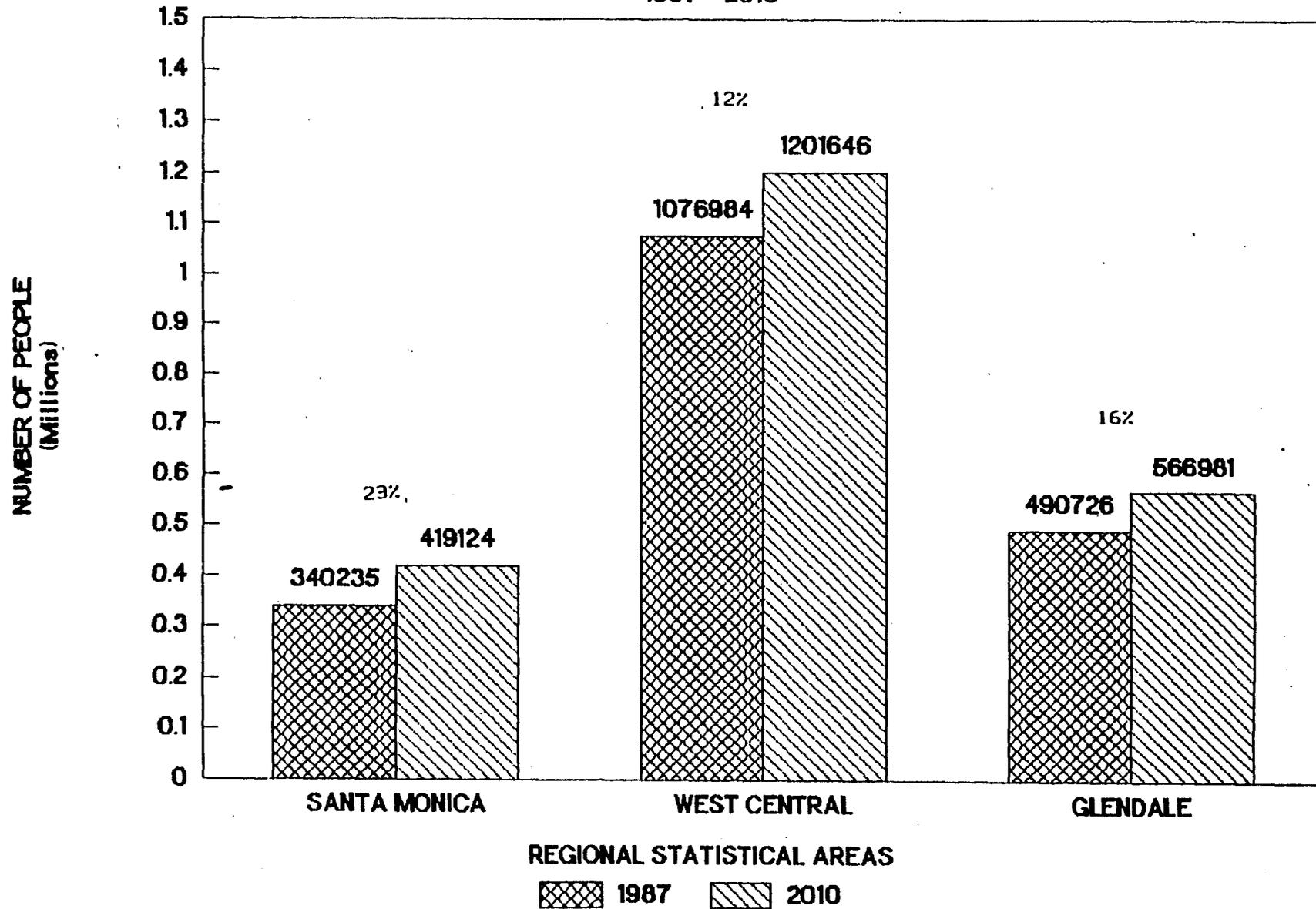
Projected population growth change from base-year 1987 to year 2010 range from a low of 16% in the Glendale RSA to a high of 23% in Santa Monica. Housing changes range from a low of 16% in the West Central area to a high of 17% in the Santa Monica area. Employment projections indicate changes ranging from a low of 19% in the West Central area to a high of 29% in the Glendale area. The San Gabriel Mountains RSA is illustrated on Graph 1C on page 7 of this RCR. The year 2010 growth trend in the areas of employment, population and housing is less than the 1987 base-year projections indicating no growth in the San Gabriel Mountains RSA.

Improvements to alternative facilities along with mitigating measures on Route 2 will be required.

In addition, Route 2 in San Bernardino County traverses portions of the San Bernardino National Forest area (P.M. 0.0/6.36). SCAG projections indicate that next to Riverside County, San Bernardino County is the fastest growing County

POPULATION GROWTH (SCAG)

1987 - 2010

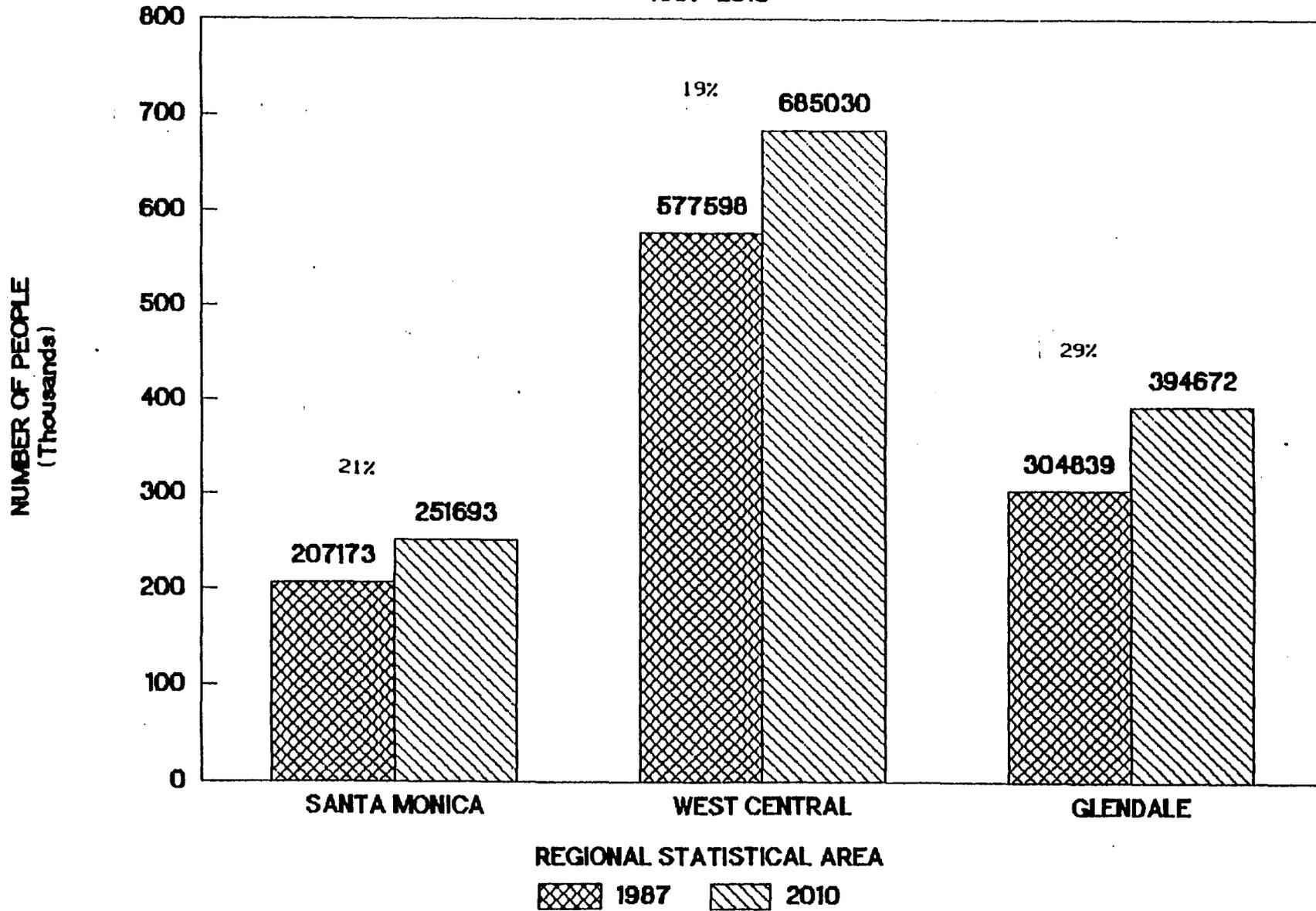


GRAPH 1

Δ % = % Increase

EMPLOYMENT GROWTH (SCAG DATA)

1987-2010

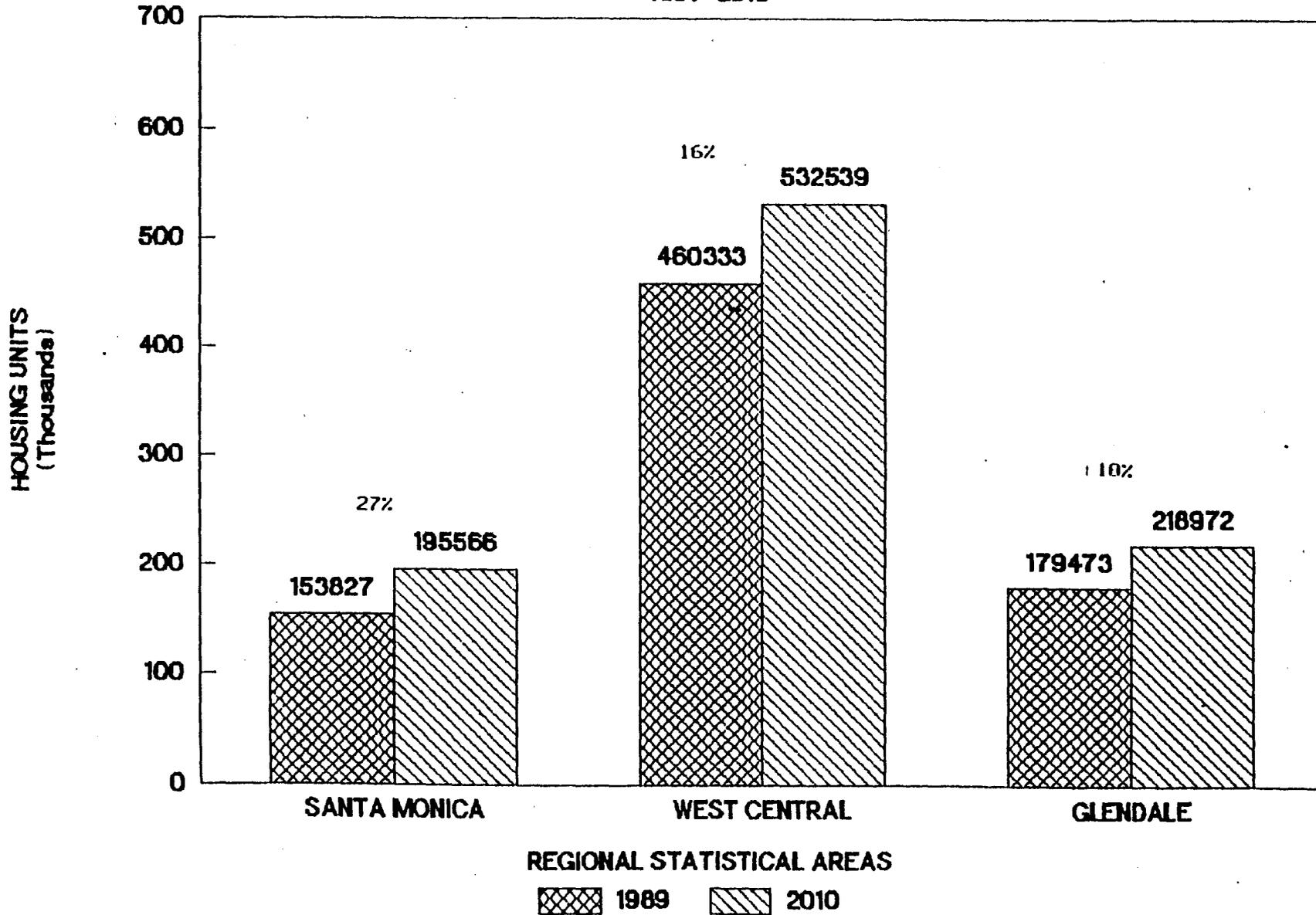


GRAPH 1A

Δ % = % Increase

HOUSING GROWTH (SCAG)

1987-2010



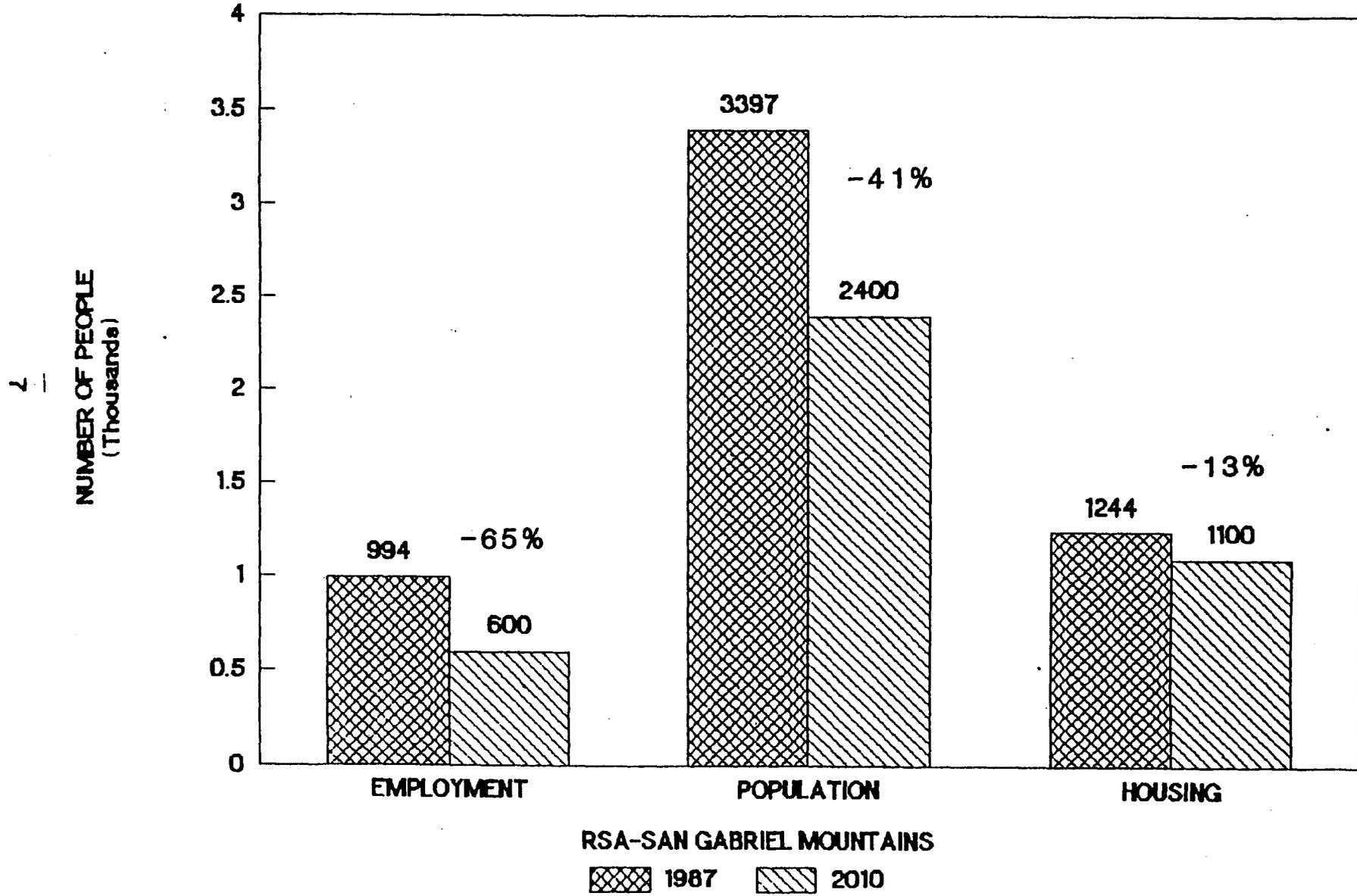
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GRAPH 1B

Δ % = % Increase

EMP/POP/HOUS. GROWTH (SCAG DATA)

1987-2010



GRAPH 1C

Δ % = % Increase

in both population and housing. However, the mountainous portion of SBD Route 2, is not significantly impacted by this growth.

Existing Facility

<u>Segment</u>	<u>Description</u>	<u>1988 Facility</u>
1	Rte. 1 & 10 to Rte 405	4-Lane Conv. Hwy.
2	Rte. 405 to Rte 170	4-Lane Conv. Hwy.
3	Rte. 170 to Rte 101N	5-Lane Conv. Hwy.
4	Rte. 101S to Glendale Bl.	6-Lane Conv. Hwy.
5	Glendale Bl. to Beg. Fwy.	6-Lane Conv, Hwy.
6	Begin Fwy. to Rte. 5	8-Lane Freeway
7	Rte. 5 to Rte. 134	8-Lane Freeway
8	Rte. 134 to Foothill Bl.	8-Lane Freeway
9	Rte. 210 to Angeles Forest	4-Lane Conv. Hwy.
10	Angeles Forest to SBD Co. Ln.	2-Lane Conv. Hwy.
11	LA/SBD County Line to Rte. 138	2-Lane Conv. Hwy.

Refer to Exhibit B-1 for segment specific data relevant to right of way, shoulder widths, terrain, LOS, truck percentage and accident data.

Parallel/Alternative Facilities

There are several local arterials in addition to two freeways that have the potential to serve as alternative routes for commuters. However, these arterials and freeways are substantially congested and provide little or no mitigating benefits to congestion on Route 2. Improvement to these arterials is necessary if they are to serve as viable alternative routes. Route 2's parallel facilities are listed as follows:

<u>Seg.</u>	<u>Arterial</u>	<u>Description</u>
1-3	Sunset Blvd. Wilshire Blvd. Olympic Blvd. Route 10 (SM Freeway)	Route 1 to Route 101 Route 1 to Route 110 Route 1 to Route 110 Route 1 to Route 110
4-5	Route 110	At Alvarado, 2 miles East
6-8	Verdugo Rd.	At Santa Monica Bl., Hyperion Bl. begins, then changes to Glendale Ave., then to Verdugo Rd.
9-11	None	

Among the LACTC's congestion relief proposals is the construction of a toll road through the San Gabriel Mountains roughly parallel to the Angeles Forest Highway.

Present and Future (No Build*) Conditions

Existing Average Daily Traffic (ADT) volumes range from a low of 3000 at the San Bernardino County Line to a high of 118,000 near Route 5 and Route 134. LARTS 2010 projections indicate that traffic volumes will experience significant increases along the corridor. Graph 2 and 2A on Page 10 of this RCR illustrate the existing and 2010 ADT and the percentage of increase for each segment of the route. The following table shows the ADT and the resultant LOS for each segment:

<u>Seq.</u>	<u>Limits</u>	<u>Existing Fac.</u>	<u>1988 ADT</u>	<u>1988 LOS</u>	<u>2010 ADT</u>	<u>2010* LOS</u>
1	Rte. 1 to Rte. 405	4C	48500	F	69000	F
2	Rte. 405 to Rte. 170	4C	50000	D	71000	F
3	Rte. 170 to Rte. 101N	5C	39000	C	60000	D
4	Rte. 101S to Glendale	5C	37000	F	40000	F
5	Glendale to Beg. Fwy.	5C	67000	F	85000	F
6	Begin Fwy. to Rte. 5	8F	62000	F0	121000	E
7	Rte. 5 to Rte. 134	8F	118000	F0	119000	F0
8	Rte. 134 to Foothill	8F	81000	C	102000	E
9	Rte. 210 to Ang. For.	4C	3400	B	7000	D
10	Ang. For. to SBD Co.Ln.	2C	3000	B	3000	B
11	LA Co. Ln. to Rte. 138	2C	3000	B	3000	B

In order to enhance capacity, Alvarado Blvd. has two lanes of travel each way with restricted parking during peak hours to permit the operation of three lanes of travel in the peak direction. Further, Glendale Blvd. between Alvarado Blvd. and the freeway section of Route 2, restricted parking is in effect in each direction), to allow three lanes of travel in the peak direction.

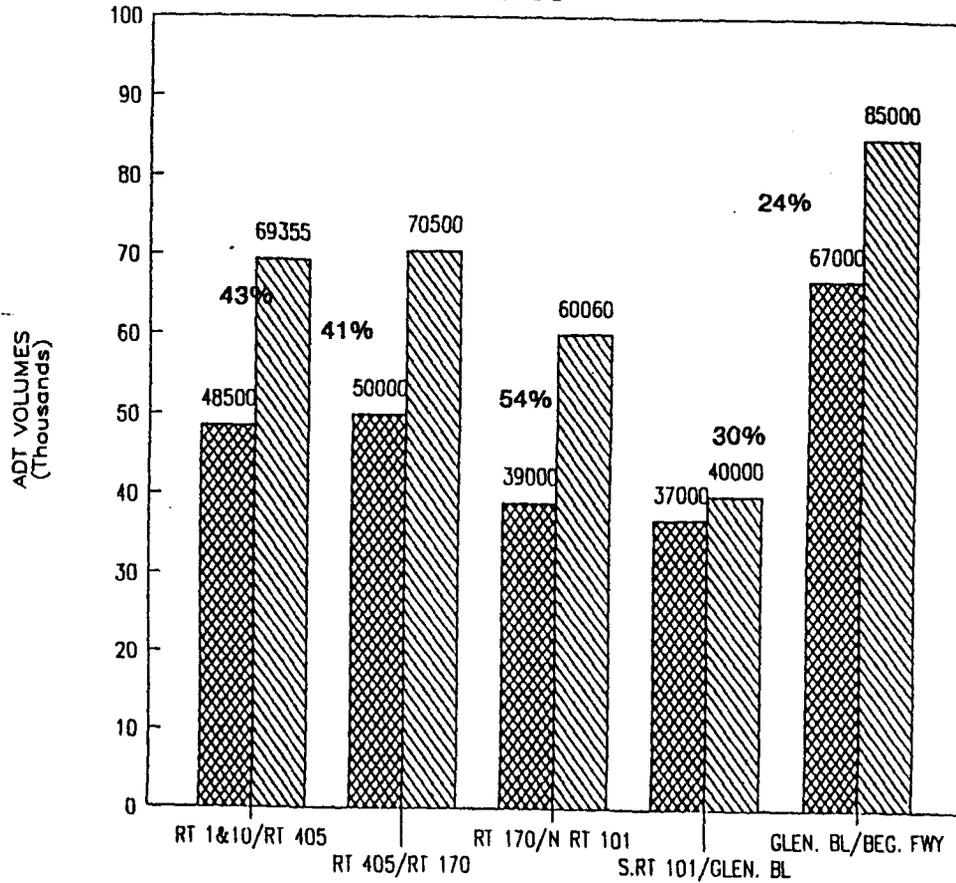
III ROUTE CONCEPT

Route Concept Rationale

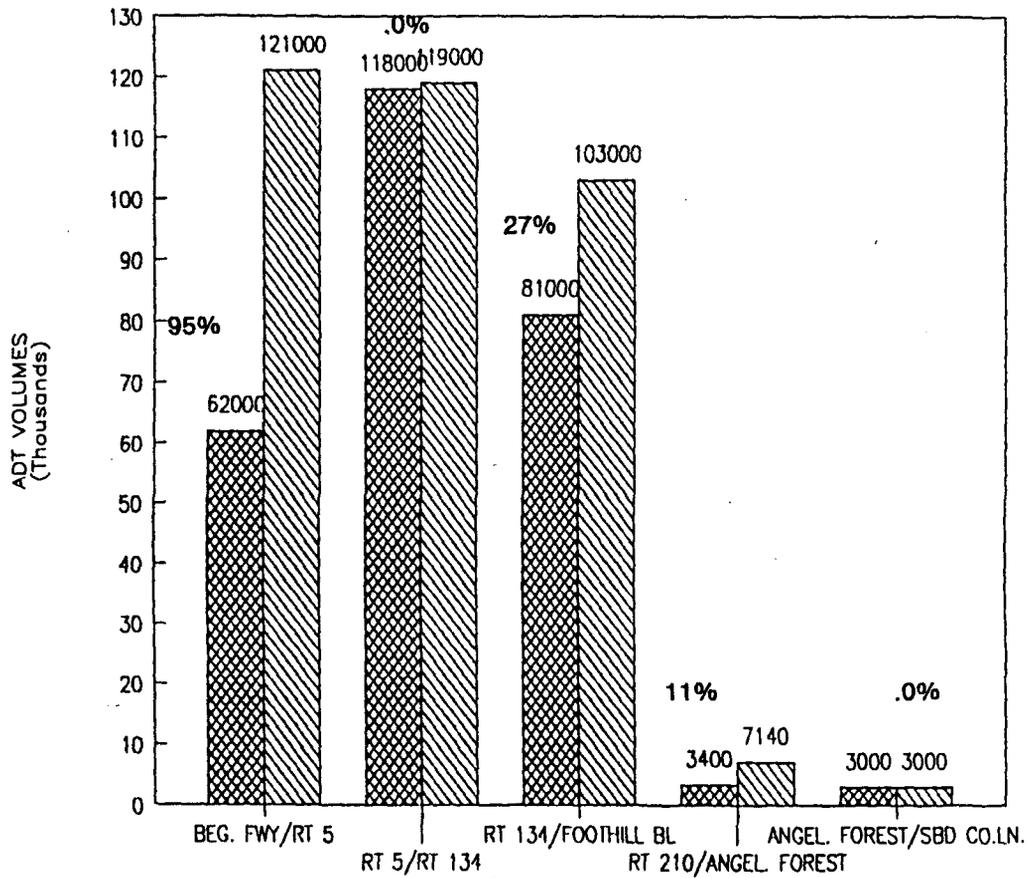
Within District 7, existing and projected peak period operating conditions on the majority of the transportation facilities in the metropolitan area are generally less than desired. Typically, LOS conditions are F0 or lower. Anticipated growth rates translate to ever increasing travel

TRAFFIC DEMAND (LARTS)

ROUTE 2



GRAPH 2



GRAPH 2A

HIGHWAY LIMITS

1989 2010

demand. Various constraints limit the opportunities to improve future travel conditions significantly over existing levels. Consequently, a LOS of F0, peak period congestion for up to one hour, is the minimum performance conditions accepted on the metropolitan freeways in the district. LOS D is the accepted minimum performance on conventional highways.

Route Concept

The route concept describes the operating conditions and physical facilities required to provide those conditions that could exist on Route 2 after considering the conclusions, priorities and strategies discussed in the District System Management Plan (DSMP), the SCAG Regional Mobility Plan (RMP) and other planning documents. The route concept represents what could reasonably be accomplished to facilitate the mobility of traffic desiring to use the route. It assumes management improvement strategies and system operational and management improvements to maximize the efficiency on Route 10 will be implemented. The route concept also assumes that improvements to facilitate travel by other modes and on parallel facilities will be made.

The route concept is composed of a LOS and a facility component. The concept LOS indicates the minimum level of service the district would allow on a route prior to proposing an improvement to improve operating conditions. The concept facility is the facility that could be developed to maintain or attain the concept LOS. The following table list the route concept for Route 2:

<u>Seq.</u>	<u>Limits</u>	<u>Concept LOS</u>	<u>Concept Facility</u>
1	Rte. 1 & 10 to Rte.405	D	6C
2	Rte. 405 to Rte. 170	D	6C
3	Rte. 170 to Rte. 101N	D	5C*
4	Rte. 101S to Glendale Bl.	F	5C*
5	Glendale Bl. to Beg. Fwy.	F	8C
6	Begin Fwy. to Rte. 5	C	8F+2HOV
7	Rte. 5 to Rte. 134	C	8F+2HOV
8	Rte. 134 to Foothill	C	8F+2HOV
9	Rte. 210 to Ang. For.	D	4C
10	Ang. For. to SBD Co.Ln.	C	2C
11	LA/SBD Co.Ln. to Rte.138	C	2C

Alternative Concepts Considered

The following alternative were considered on Route 2:

- o Improve arterials, parallel facilities and interconnect signals along the Route 2 corridor (namely, Santa Monica

Blvd.) and implement the "Smart" corridor project. These measures per se would not eliminate congestion along the corridor but could facilitate mobility and reduce delay time.

- o Improve access to LACBD by extending Glendale Blvd. (Conversion to a freeway might be considered.) This has major system benefits to Routes 2, 5, 101 and 110. Should this alternative be implemented, Alvarado Blvd., should be relinquished.
- o A bottleneck occurs in Segments 4 and 5 which creates back up on the Glendale Freeway in the a.m. peak and Alvarado and Glendale Blvds. in the p.m. peak. At best a concept LOS of F has been established for these two segments. The concept LOS is attained by utilizing restricted parking in the peak direction. To attain a concept better than F. would require additional right of way between Alvarado Blvd. and the freeway portion of the route to allow for additional lanes. Further, modification of the end of the freeway is required. In addition, peak direction capacity could be enhanced with the removal of the existing median on Glendale Blvd. resulting in the operation of a reversible lane. Modification of the end of the freeway would also be require.

All of the above mentioned alternatives would be expensive and highly disruptive.

IV. OPERATING DEFICIENCIES/IMPROVEMENTS TO ACHIEVE CONCEPT

Operating deficiencies occur when the existing or projected LOS falls below the concept LOS. A deficiency also exist on urban freeways when the LOS is E or F. The deficiencies on Route 2 are due to the demand to travel on the facility exceeding the capacity of the facility. The existing and projected deficiencies are listed in the following table. which also identifies improvements that could resolve the deficiencies and lead to attainment of the concept LOS:

<u>Seg.</u>	<u>Limits</u>	<u>1988</u> <u>Fac.</u>	<u>1988</u> <u>LOS</u>	<u>2010</u> <u>LOS</u>	<u>Con.</u> <u>LOS</u>	<u>Con.</u> <u>Fac.</u>	<u>Needed</u> <u>Improvement</u>
1	Rte. 1 to Rte. 405	4C	F	F	F	6C	Add 1 ln. E/W
2	Rte. 405 to Rte. 170	4C	D	F	D	6C	Add 1 ln. E/W
4	Rte. 101S to Glendale	5C*	F	F	D	5C*	Restrict Pkg.
5	Glendale to Beg. Fwy.	5C*	F	F	F	5C*	Add 2 lns.pk.
7	Rte. 5 to Rte. 134	8F	F0	F0	C	8F+	Add HOV, EB/WB HOV Ln.

LARTS 2010 projections indicates that each segment will operate either at or better than the concept LOS. High Occupancy Vehicle (HOV) improvements to the route are recommended for consistency with the District's 1989 Route Development Plan (RDP), and the District 7 HOV Lane Study. Further, the proposed HOV improvements are consistent with the California Transportation Commission's Resolution G-98-8, and the Federal Highway Administration - California Division policy requiring the Department to consider HOV implementation whenever capacity is added to existing metropolitan freeways. In addition, implementing HOV lanes on the freeway portion of Route 2 would provide a connecting link to proposed HOV lanes on Routes 5 and 134, thereby enhancing system continuity.

Refer to Exhibits B-1 and B-2 for a comparison of HOV and mixed flow LOS's on the Glendale Freeway. (Segments 6-8).

Traffic Accidents

Department data based on the Traffic Accident Surveillance and Analysis System (TASAS), indicate that four segments on the route reflect a higher three-year accident rate than the state-wide average for a similar route. The TASAS data covers the time period between July 30, 1987 through July 30, 1990 for the following segments:

<u>Seq.</u>	<u>Limits</u>	<u>Possible Contributing Factors</u>
2	Rte. 405 to Rte. 170	Heavy cross traffic and parking
6	Begin Fwy. to Rte. 5	Accelerating and decelerating speed entering and leaving freeway; and demand from Route 5
9	Rte. 210 to Ang. For.	Winding 4-lane conventional highway with mountainous grade

The following table shows the average percentage of highway grade for the last three segments of the route:

<u>Seq.</u>	<u>Terrain</u>	<u>Grade < 3%</u>	<u>Grade 3 to 6%</u>	<u>Grade > 6%</u>
9	Rolling	2%	53%	45%
10	Mountainous	24%	59%	17%
11	Mountainous	24%	59%	17%

The major benefit of operational improvements for the 2010 concept in segments 9-11 is increased safety. Segments 1 and 6 require study as to the feasibility of improving safety characteristics in these segments.

Truck Volumes

Truck volumes as a percentage of the peak hour range from 3% to 4% on the route. The impact of these volumes on traffic flow is minimal and do not appear to contribute to the higher three-year average rate over the state average accident rate. See Exhibit B-1 for segment specific truck percentages on the route.

Route 2 is designated as part of the National Network for Surface Transportation Assistance Act (STAA) trucks. The route is also subject to constraints imposed under the Sub-System of Highways for Extra Legal Permit Loads (SHELL).

In this District, Route 2 is listed among the routes having designated areas for truck travel, as well as non-designated areas where trucks are not permitted.

V. ULTIMATE TRANSPORTATION CORRIDOR

The Ultimate Transportation Corridor (UTC) is viewed as the maximum development of a facility or corridor including parallel facilities. The UTC is used to identify potential right of way needs and issues. This information is critical for working with local and regional land use planning agencies to determine right of way preservation and dedication techniques.

Based upon projected 2010 growth trends in the Route 2 corridor, the UTC has been determined to be essentially the same as the 2010 Route Concept.

Right of way needs for the LACTC's proposed rail transit are a minimum of 22 feet to a maximum of 60 feet. The proposed rail (along Route 2's Santa Monica Blvd.) alignment is an 18 mile rapid transit line extending from the LACBD to the North Hollywood area, near the junctions of Routes 101 and 170, with a planned section at Route 2 and Fairfax Avenue. Refer to Exhibit B1 for the proposed alignment along the Route 2 corridor. See Multi-Modal Considerations section of this report for additional information of rail services.

Pursuant to the Director's Policy Memo (January, 1991), it is the policy of Caltrans to work on a partnership basis with local land use authorities to accomplish early identification of transportation corridors and to explore all appropriate means for the acquisition and preservation of those corridors.

VI. COORDINATION WITH OTHER PLANS

The Long Range Operations Plan (LROP) is a strategy to maximize the existing capacity of the major highway corridor in the metropolitan area. The primary items in this strategy include HOV facilities, ramp metering, signal timing and coordination and a Traffic Operations Center (TOC).

With the exception of that part of the route between Glendale Blvd. and Route 210 (Glendale Freeway, P.M. 14.21/23.43), Route 2 is primarily a conventional highway. Traffic signal timing and synchronization are essential to efficient operation on conventional highways in this District.

Cooperative agreements with the locals to signal timing coordination and utilization of the joint operations policy statement with the California Highway Patrol (Section A3) for coordination of traffic management activities add to the efficient operation of the highway system.

Further, consistency with Department plans, such as the Rail Passenger Development Plan (RPDP), and the Air Quality Management Plan (AQMP), assist District efforts towards developing and implementing an effective, efficient rail service. In addition to providing an alternative mode of commute for Route 2 commuters, rail service would complement existing bus service, conserve energy, result in less congestion on streets and highways, and contribute to clean air.

Air Quality Considerations

As a result of the SCAQMD's Regulation XV, which requires employers with 100+ employees to develop transportation options and programs for employees, employers are now offering more transportation alternatives. The goal is to increase the average ridership per vehicle to reduce emissions from vehicles driven for work-related trips.

Los Angeles County produces about 67 percent of the total air pollutants generated in the South Coast Air Basin, with emissions exceeding one or more federal health standards in 232 days in 1988. If current emissions and growth patterns remain unchanged, air quality in Los Angeles will deteriorate even further within a few years. Every effort towards improving mobility ultimately improves our environment as well.

Stepped up efforts towards meeting air quality standards must be aggressively implemented in order to comply with SCAQMD standards for clean air. Currently, District 7 in cooperation with the private sector and local governmental jurisdictions, plans implements and promotes numerous Transportation Demand Management (TDM) measures, Transportation System Management (TSM) strategies and Traffic Management Associations (TMA's) in consort, to maximize system benefits when and where appropriate along a given route. A discussion of these measures follows below:

- o Transportation Demand Management - This strategy involves managing the demand before it reaches the highway system. Such measures include ridesharing; flex-time; modified work week; telecommuting; parking management; public transit vouchers and subsidies; truck rescheduling; vanpool user fees; vanpool incentives such as Guaranteed Ride Home Programs (GRH's) and lower parking costs for carpools.
- o Transportation System Management - The TSM strategy involves freeway ramp metering; parking restrictions; bicycle facilities; HOV by-pass lanes; restriping; traffic signal synchronization; bus turnouts; and preferential roadways.
- o Traffic Management Association - TMA's are proactive organizations formed so that employers, developers, building owners, local government representatives, and others can work together and collectively establish policies, programs and services to address local transportation problems. The following TMA's serve the Route 2 corridor:
 - o Los Angeles Commuter Club
 - o Century City TMA

Where feasible, these strategies and measures are being utilized to ensure mobility and an acceptable operating LOS on Route 2. In addition, expanded efforts towards increased cooperation and greater participation by the locals through Advanced Transportation System Development (ATSD) efforts are being utilized to improve coordination and integration of measures, strategies and technology in order to maximize total highway system benefits.

VIII. MULTI-MODAL CONSIDERATIONS

Currently, there are five state funded multi-modal centers in the District, two of which served the Route 2 corridor. These are:

Multi-Modal Centers

<u>Center</u>	<u>Sponsor</u>	<u>Service</u>
LA Union Station	Amtrak	Bus, taxis, dial-a-ride, parking, bike facilities
West LA	SCRTD	Local transit, taxis

The 1990 STIP list the following transportation centers that will be upgraded and/or improved for multimodal use:

<u>STIP #</u>	<u>Center</u>	<u>Programmed Improvement</u>
9101	Glendale Transp. Center	Purchase property & station, const. parking structure
9114	Pasadena Transp. Center	Purchase property & station, improve parking

The existing centers, as well as the proposed facilities will serve to enhance mobility through the Route 2 corridor and provide alternative modes of travel. Additional modes of travel are discussed below:

Bus Service

The Southern California Rapid Transit District (SCRTD) operates the following lines along the Route 2 corridor:

<u>Serving</u>	<u>Line</u>	<u>Headway</u>	<u>Destination</u>
Santa Monica Bl.	1	30 Min.	Cent. City to LACBD
Santa Monica Bl.	4	10 Min.	Sta. Monica to LACBD
Santa Monica Bl.	304	10 Min.	Sta. Monica to LACBD
Alvarado Bl/Glendale	92-93	6 Min.	San Fernando, LACBD via Alvarado Bl.
Alvarado Bl/Glendale	200	8 Min.	Expo Park, Montana via Alvarado Bl.

Alvarado Bl/Glendale 406-407 18 Min Sunland to LACBD

The Santa Monica Municipal Bus Line operates the following bus line along the Santa Monica Blvd. portion of the Route 2 corridor:

<u>Serving</u>	<u>Line</u>	<u>Headway</u>	<u>Destination</u>
Santa Monica Bl.	1	10 Min.	UCLA to Venice (Main and Windward)

Park and Ride

The following park and ride lot serves the Route 2 corridor:

<u>P.M.</u>	<u>Limits</u>	<u>Location</u>	<u>Spaces</u>
LA 23.1	Route 2 at Foothill	La Canada	75

Bikeways

Exclusive bicycle facilities do not exist on Route 2, therefore bicycles travel in the traffic lanes with automobiles. Santa Monica Blvd. is however, part of the Caltrans commuter bikeway system and is included in both the City and County of Los Angeles bikeway plans. The following bikeways, postmile limits and traffic speeds are listed for bicycle travel on Route 2:

<u>Seq.</u>	<u>P.M.</u>	<u>Bikeway Limits</u>	<u>Bikeway #</u>	<u>Traffic Speeds</u>
1	0.0/3.6	Rte. 1 to Rte. 405	2A	0-35
2-3	3.6/12.8	Rte. 405 to Rte 101	2B	0-35
4-5	12.8/14.2	Rte. 101 (Alvarado/ Glendale Bl.	2C	0-35
7	16.7/19.2	Ave. 36 to Rte. 134	2E	0-35
8	19.2/24.3	Rte. 134 to Rte. 210	2F	0-35
9	24.3/38.4	Rte 210 to Mt. Wilson	2G	0-35+
10	38.4/51.2	Mt. Wilson to Newcomb	2H	0-35
10	51.2/64.1	Newcomb Rch. to Rte. 39	2J	0-35
10	64.1/82.3	Rte. 39 to SBD Co. Ln.	2K	0-35

Rail

Numerous rail alternatives have been developed in response to rail proposal along the Route 2 corridor. The Los Angeles County Transportation Commissions' (LACTC) Metro Rail project is expected to impact the Santa Monica Blvd. section of Route 2. Southern Pacific Transportation Companys' (SPTC) right of way separates Santa Monica Blvd. and Little Santa Monica Blvd. The rail is basically a single track line that begins near Olympic Blvd. and 14th Street in Santa Monica, and parallels Olympic and Exposition Blvds. north along the west side of Sepulveda Blvd. The line then curves just south of Santa Monica Blvd., then follows Santa Monica Blvd. through West Los Angeles and Beverly Hills to Croft Avenue in West Hollywood. The entire line in Santa Monica has been abandoned by SPTC.

The County of Los Angeles and Caltrans entered into a cooper-ative agreement to jointly purchase the rail right of way from Arden Drive to Croft Avenue. Title is vested in the State. The right of way widths varies from a minimum of 22.5 feet to a maximum of 60 feet for approximately 1.3 miles.

The Los Angeles Metro Rail Orange Line extension is another alternative proposed to help address needs for improvement of accessibility and mobility in the corridor. In order to fully maximize the rail transit needs along the Route 2 corridor, the Metro Rail system should be extended both east and west beyond the Central east/west corridor. The Orange Line proposal is a tunnel alignment for nearly 7.5 miles, beginning at Highland Avenue and Hollywood Blvd. to Century City and terminating at Westwood Village.

In addition to this proposal, Olympic Blvd. which parallels Route 2 (Santa Monica Blvd.) is a corridor under consideration for a 9-mile tunnel alignment beginning at Western Avenue and Wilshire Blvd. The alignment turns southwest to Olympic Blvd., continuing west along Olympic Blvd., and then northwest along San Vicente. After joining Wilshire Blvd., it continues to Century City terminating at Westwood Village.

All of the above listed modes would facilitate mobility on the route. Parallel facilities and connecting routes such as Routes 5 and 134 will be important to Route 2 when proposed HOV lanes are implemented on each of these routes.