Transportation Concept Report
ROUTE 1
District 7
June 2014

Approvals:

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DISCLAIMER

Disclaimer: The information and data contained in this document are for planning purposes only and should not be relied upon for final design of any project. Any information in this Transportation Concept Report (TCR) is subject to modification as conditions change and new information is obtained. Although planning information is dynamic and continually changing, the District 7 Division of Planning and Local Assistance makes every effort to ensure the accuracy and timeliness of the information contained in the TCR. The information in the TCR does not constitute a standard, specification, or regulation, nor is it intended to address design policies and procedures.

Mission – Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability

California Department of Transportation

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ABOUT THE TRANSPORTATION CONCEPT REPORT

System Planning is the long-range transportation planning process for the California Department of Transportation (Caltrans). The System Planning process fulfills Caltrans' statutory responsibility as owner/operator of the State Highway System (SHS) by identifying deficiencies and proposing improvements to the SHS. Through System Planning, Caltrans focuses on developing an integrated multimodal transportation system that meets Caltrans' goals of safety, mobility, delivery, stewardship, and service.

The System Planning process is primarily composed of four parts: the District System Management Plan (DSMP), the Transportation Concept Report (TCR), the Corridor System Management Plan (CSMP) and the Transportation System Development Plan (TSDP).

The District wide DSMP is a strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The TCR is a planning document that identifies the existing and future route conditions as well as future needs for each route on the SHS. The CSMP is a complex, multi-jurisdictional planning document that identifies future needs within corridors experiencing or expected to experience high levels of congestion. The TSDP is a list of planned and partially programmed transportation projects used to recommend projects for funding. These System Planning products are also intended as resources for public/stakeholders, the regional and local agencies.

TCR Purpose

California's State Highway System needs long range planning documents to guide the logical development of transportation systems as required by law and as necessitated by public, stakeholders, and system users. The purpose of the TCR is to evaluate current and projected conditions along the route and communicate the vision for the development of each route in each Caltrans District during a 20-25 year planning horizon. The TCR is developed with the goals of increasing safety, improving mobility, providing excellent stewardship, and meeting community and environmental needs along the corridor through integrated management of the transportation network, including the highway, transit, pedestrian, bicycle, freight, operational improvements and travel demand management components of the corridor.

STAKEHOLDER PARTICIPATION

Stakeholder participation was sought throughout the development of the SR-1 TCR. Outreach involved internal and external stakeholders.

Both internal and external stakeholders were asked to review the document for comments, edits, and for consistency with the intent of existing plans, policies, and procedures. The process of including and working closely with stakeholders adds value to the TCR, allows for outside input and ideas to be reflected in the document, increases credibility and helps strengthen public support and trust.

EXECUTIVE SUMMARY

The main purpose of this TCR is to evaluate current and projected conditions along the route and suggest a configuration for SR-1 that will meet projected demand. Historically the freeway system in Southern California is highly congested and this trend will continue into the future. Due to financial, environmental, right of way and political constraints, it is very difficult for Caltrans to continue to add more lanes to the system. Recognizing these constraints, the planned/programmed projects and strategies in the TCR are within a framework of programming and implementation constraints and regional policy.

In addition to these planned/programmed projects and strategies, the TCR also suggests a configuration for SR-1 that will meet future demand. The suggested configuration is meant to only show severity of future conditions and what it would take to attain those LOS. It is Caltrans goal to provide improved mobility whenever possible.

The SR-1 TCR is divided into several major sections; three of the sections – the Corridor Performance, System Characteristics and Corridor Concept – are the core of the document. All of the remaining sections provide a context for analyzing the SR-1 corridor and document the data resources.

Concept Summary Table

CONCEPT–2035 FACILITY

Segment	ADT	Dir. Split	Peak Hour	Truck Peak Hour	2035 Baseline RTP		LOS "D" Attainment (# of lanes)	Concept F0 Attainment (# of lanes)
1 ORA/LA Cty. Line-Rte 22	41,530	51.88%	1,904 (4.58%)	30 (1.58%)	5 MF		6	5
					V/C	LOS		
					0.97	E		
2 Rte 22-Rte 19	41,656	51.27%	1,519 (3.65%)	56 (3.69%)	4 MF		5	4
					V/C	LOS		
					0.95	E		
3 Rte 19-I-710	54,740	49.46%	2,321 (4.24%)	57 (2.46%)	6 MF		6	6
					V/C	LOS		
					0.87	D		
4 I-710-Rte 213	44,619	49.75%	2,062 (4.62%)	106 (5.14%)	6 MF		7	6
					V/C	LOS		
					0.92	E		

Segment	ADT	Dir. Split	Peak Hour	Truck Peak Hour	2035 Baseline RTP		LOS "D" Attainment (# of lanes)	Concept F0 Attainment (# of lanes)
5 Rte 213-SR.91	33,083	50.62%	1,424 (4.3%)	20 (1.40%)	5 MF		5	5
					V/C	LOS		
					0.75	D		
6 SR.91-El Segundo	37,673	50.13%	2,318 (6.15%)	26 (1.12%)	7 MF		8	7
					V/C	LOS		
					0.92	E		
7 El Segundo-I-105	45,312	49.7%	2,035 (4.49%)	47 (2.31%)	8 MF		--	8
					V/C	LOS		
					0.63	C		
8 I-105-Century Blvd	79,590	48.13%	2,771 (3.48%)	109 (3.93%)	9 MF		9	9
					V/C	LOS		
					1.12	F0		
9 Century Blvd-Lincoln Blvd	64,030	52.22%	2,879 (4.5%)	108 (3.75%)	7 MF		9	7
					V/C	LOS		
					1	F0		
10 Lincoln Blvd-Manchester Ave	43,362	56.47%	2,049 (4.72%)	41 (2.0%)	7 MF		--	7
					V/C	LOS		
					0.69	C		
11 Manchester Ave-Culver Blvd	56,468	52.45%	3,093 (5.48%)	35 (1.13%)	8 MF		10	10
					V/C	LOS		
					1.01	F0		
12 Culver Blvd-Washington Blvd	59,915	50.75%	2,912 (4.86%)	41 (1.41%)	7 MF		9	9
					V/C	LOS		
					1.18	F0		
13 Washington Blvd-I-10	41,360	49.81%	1,731 (4.19%)	27 (1.56%)	4 MF		7	7
					V/C	LOS		
					1.19	F0		

Segment	ADT	Dir. Split	Peak Hour	Truck Peak Hour	2035 Baseline RTP		LOS "D" Attainment (# of Lanes)	Concept F0 Attainment (# of lanes)
14 Begin Fwy-End Fwy	67,186	44.23%	3,531 (5.26%)	319 (9.03%)	4 MF		5	4
					V/C	LOS		
					0.95	E		
15 End Fwy-Sunset Blvd	71,026	49.54%	3,079 (4.34%)	322 (10.46%)	6 MF		9	7
					V/C	LOS		
					1.25	F1		
16 Sunset Blvd-Rte 27	64,908	50.84%	3,375 (5.2%)	332 (9.84%)	4 MF		10	8
					V/C	LOS		
					2.03	F3		
17 Rte 27-Kanan Dume	34,970	49.97%	1,743 (4.99%)	303 (17.38%)	4 MF		6	6
					V/C	LOS		
					1.14	F0		
18 Kanan Dume – Rte 23	21,015	50.79%	1,402 (6.67%)	299 (21.33%)	4 MF		4	4
					V/C	LOS		
					0.85	D		
19 Rte 23-Ventura Cty. Line	18,247	51.25%	1,365 (7.48%)	303 (22.20%)	4 MF		--	4
					V/C	LOS		
					0.53	C		
20 Ventura Cty Line-Begin Fwy	18,626	51.27%	1,376 (7.39%)	303 (22.02%)	2 MF		4	4
					V/C	LOS		
					1.05	F0		
21 Begin Fwy-End Fwy	24,916	48.04%	1,704 (6.84%)	229 (13.44%)	4 MF		--	4
					V/C	LOS		
					0.47	B		

Segment	ADT	Dir. Split	Peak Hour	Truck Peak Hour	2035 Baseline RTP		LOS "D" Attainment (# of lanes)	Concept F0 Attainment (# of lanes)
	R E L I N Q U I S H E D				-		-	-
22	-	-	-		-	-	-	-
				-	-	-	-	-
23	-	-	-	-	-	-	-	-
Rte.1-Rte- 101 (Via Rice Ave)	PENDING ADOPTION				-	-	-	-
	-	-	-	-	-	-		
24		2.63%	400 (7.55%)	0 (0.00%)	2 MF		-	2
Rte 101-Mobil Pier Rd	5,300				V/C	LOS	-	-
					0.01	A	-	-

Directional Split – Peak Period of the Peak Direction

** The number of lanes in the LOS D Attainment column is for both directions. LOS D Attainment indicate how many lanes it would require to achieve LOS D. It is meant show the severity of future conditions and what it would take to achieve LOS D. Caltrans is not suggesting that it is our plan to build the facility to achieve the LOS D.*

** The number of lanes in the LOS F0 attainment column is for both directions. The data in the LOS FO attainment column is only meant to show the severity of congestion on our system and what it would require to achieve that level of service. We recognize the difficulty in achieving the desired LOS given the financial, environmental, right of way and political constraints. However, it is Caltrans' goal to provide improved mobility when feasible.*

** Sometimes the model output implies that there would be aux. lanes (each direction) and aux. lanes are given only half capacity. That is why there are instances where we have odd number of lanes for both direction.*

** The 2035 Baseline includes all planned and programmed projects in the 2012-2035 RTP/SCS*

** For consistency with 2012-2035 RTP/SCS, year 2008 and 2035 were used.*

** 2008 & 2035 data are derived from the 2012-2035 RTP/SCS model. Data in this report is meant to be used for comparison purposes only and are not to be use for specific projects without further analysis.*

For Segment description please see page 9.

Source: 2012-2035 RTP/SCS

Concept Rationale

SR-1 is a north-south State Route that traverses through Los Angeles and Ventura Counties Coastal region and is used for inter-regional, intra-regional, recreational and commuter travel through highly urbanized areas in Los Angeles County, and rural areas of Ventura County. It varies from one lane to four lanes in each direction. It serves many unincorporated and coastal cities and communities in Los Angeles and Ventura Counties providing access to beaches, parks and other attractions along the route. The route runs beside the coastline or close to it and turns inland to avoid federally controlled or protected areas such as Vandenberg Air Force Base, Diablo Canyon Power Plant and Point Reyes National Seashore.

State Route 1 is mostly a Conventional Route in Los Angeles County and a Freeway/Expressway in Ventura County. SR-1 in District 7 is Eligible for Designation as a Scenic Route from SR-187, near Santa Monica (PM LA-32.2) to US 101 near El Rio (PM-VEN 21.1) and is a Subset of the National Highway System.

Traffic volume is forecasted to increase on SR-1 in 2035 and will require additional lanes to achieve the acceptable Concept Level of Service (LOS). Several capacity improvements are planned, programmed, and recommended for this corridor including access management.

Proposed Projects and Strategies

There are several mainline improvements planned or programmed for SR-1 in the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) including several jurisdictions within the sphere of the corridor such as the Cities of Long Beach, Los Angeles, Malibu and Oxnard. Projects include:

1. Successful relinquishments make it possible for local entities to develop their communities the best way they see fit. Examples include the followings:

    - Relinquishment of a portion of SR-1 in the City of Santa Monica; from Dewey Street to I-10 (DOC#: 20120830860, June 4, 2012),

    - California Transportation Commission (CTC) has passed relinquishment of a portion of PCH, in the City of Oxnard, from Pleasant Valley to US 101 (PM VEN15.1 to PM VEN21.1), but is yet to be implemented. (Passed by CTC on 03/05/2013; Relinquished 5/7/2013; DOC #: 20130507-00082580-0)

2. Some other cities have expressed interest in accepting relinquishments but are still in the process. Examples are;

    - City of Los Angeles: Lincoln Blvd.; from Manchester Ave. to Ozone Ave. (PM 29.0-33.3) on 07/10/2002

- City of Long Beach: PCH within the City of Long Beach (PM 0.00-8.3)
- City of Torrance has an Active Relinquishment for from Pennsylvania Ave. to Vista Del Mar (PM 14.2/18.1) Relinquishment Legislation: Assembly Bill 2326 (AB2326) Enacted: 1/1/2009.

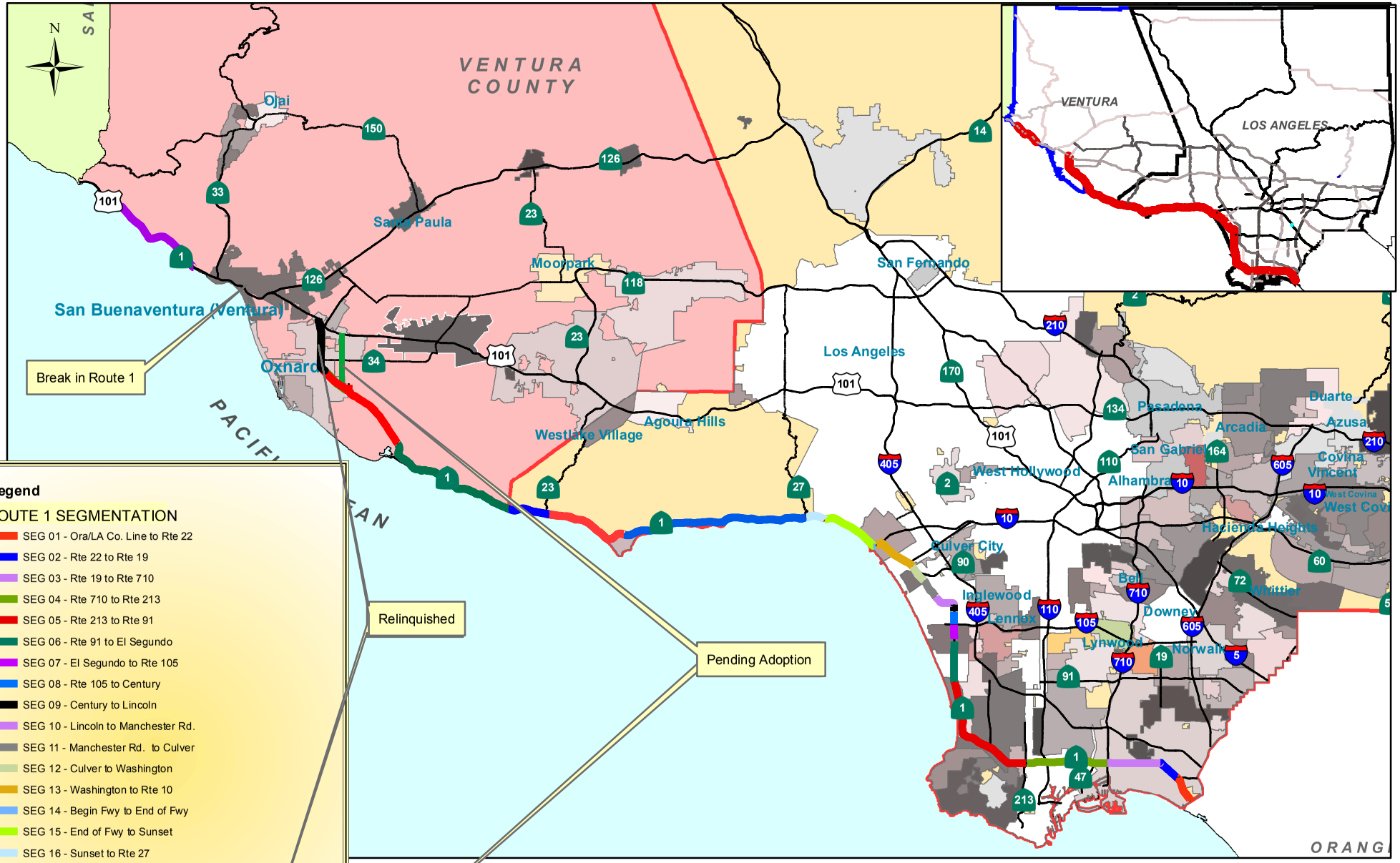
3. In the City of Malibu; PCH Bike Route Improvement Project.
4. In Oxnard; refurbish pavement and grade separation of rail crossing at Rice Avenue.
5. Hueneme Road improvement and bridge widening over 5th Street.
6. Long Beach; replace bridge and modify ramps. (P.M. LA 8.24 to 8.62) Between Rte. 103 and Dominguez Channel.
7. Los Angeles; Bridge and roadway widening at Lincoln Blvd. (P.M. LA 30.16 to 30.73).

CORRIDOR OVERVIEW

ROUTE SEGMENTATION

SR-1 SEGMENTATION			
SEGMENTS	**DESCRIPTION**	**BEGIN PM**	**END PM**
1	ORA/LA County Line to Rte 22	0.00	1.97
2	Rte 22 to Rte 19	1.97	3.55
3	Rte 19 to I-710	3.55	7.28
4	I-710 to Rte 213	7.28	13.10
5	Rte 213 to SR-91	13.10	21.91
6	SR-91 to El Segundo	21.91	24.91
7	El Segundo to I-105	24.91	25.92
8	I-105 to Century Blvd.	25.92	26.90
9	Century Blvd. to Lincoln Blvd.	26.90	27.36
10	Lincoln Blvd. to Manchester Ave	27.36	29.08
11	Manchester Ave. to Culver Blvd.	29.08	30.47
12	Culver Blvd. to Washington Blvd	30.47	31.78
13	Washington Blvd. to I-10	31.78	R34.57
	BREAK IN ROUTE		
14	Begin FWY to End of FWY	35.18	35.24
15	End of FWY to Sunset Blvd	35.24	39.32
16	Sunset Blvd. to Rte 27	39.32	40.76
17	Rte 27 to Kanan Dume Rd	40.76	54.02
18	Kanan Dume Rd to Rte 23	54.02	59.90
19	Rte 23 to Ventura Cty. Line	59.90	LA 62.86
20	Ventura Cty. Line to Begin FWY	0.00	9.86
21	Begin FWY to Pleasant Valley Rd.	9.86	15.10
22	RELINQUISHED	15.10	21.08
23	Rte 1 to Rte 101 (Via Rice Road)	Pending Adoption	
	BREAK IN ROUTE		
24	Rte 101 to Mobil Pier Rd	21.08	28.48

SEGMENTATION MAP - ROUTE 1



Legend

ROUTE 1 SEGMENTATION

- SEG 01 - Ora/LA Co. Line to Rte 22
- SEG 02 - Rte 22 to Rte 19
- SEG 03 - Rte 19 to Rte 710
- SEG 04 - Rte 710 to Rte 213
- SEG 05 - Rte 213 to Rte 91
- SEG 06 - Rte 91 to El Segundo
- SEG 07 - El Segundo to Rte 105
- SEG 08 - Rte 105 to Century
- SEG 09 - Century to Lincoln
- SEG 10 - Lincoln to Manchester Rd.
- SEG 11 - Manchester Rd. to Culver
- SEG 12 - Culver to Washington
- SEG 13 - Washington to Rte 10
- SEG 14 - Begin Fwy to End of Fwy
- SEG 15 - End of Fwy to Sunset
- SEG 16 - Sunset to Rte 27
- SEG 17 - Rte 27 to Kanan Dume
- SEG 18 - Kanan Dume to Rte 23
- SEG 19 - Rte 23 to VENCL
- SEG 20 - VENCL to Begin Fwy
- SEG 21 - Begin Fwy to End of Fwy
- SEG 22 - End of Fwy to Rte 101/RELINQUISHED
- SEG 23 - Rte 1 to Rte 101 (via Rice Rd.) PENDING ADOPTION
- SEG 24 - Rte 101 to Seacliff

District 7 - Advance Planning
Map by - Skb. March, 2014

ROUTE DESCRIPTION

Pursuant to Statutes relating to the California Department of Transportation, SR-1 begins from Interstate 5 south of San Juan Capistrano and ends at US 101 near Leggett through Jenner and Westport with many breaks in the route. This Transportation Concept Report (TCR) addresses the portion of Route 1 located in Los Angeles and Ventura Counties. SR-1 now spans a total of 92 miles instead of its previous 97 miles due to a recent relinquishment. There are two breaks in the route in District 7; one in Los Angeles County at Post Mile R34.57 and the other is in Ventura County at Post Mile 21.08.

SR-1 in District 7 is Eligible for Designation as a Scenic Route from SR-187, near Santa Monica (PM LA-32.2) to US 101 near El Rio (PM-VEN 21.1).

The Pacific Coast Bicycle Route, stretching from the California/Mexico border to the State of Oregon/California border for over 1,000 miles, embodies the portion of SR-1 in District 7.

Some of the specific conditions affecting SR-1 are safety for all users such as pedestrians and bicyclists as well as environmental issues, drainage, land and rock slides during the winter rainy season. Inadequate room for expansion is another case in point.

This TCR analyzes SR-1 conditions using the 'segment' as the study unit. The Segments are generally defined as 'freeway interchange to freeway interchange' 'county line to freeway interchange', or 'freeway interchange to end of freeway' However, in the case of Conventional Routes like SR-1, conditions may vary so major city streets may be used for segmentation purposes.

Route Designation and Characteristics

State Route 1 is part of the National Highway System (NHS). It is also a part of the Federal Surface Transportation Assistance Act of 1982 (STAA) Network. The STAA Network consists of the National Network (Interstates and State Routes). SR-1 is a Terminal Access Route (A State Route, that has granted access to STAA Trucks) from LA/Orange County Line (PM LA 0.00 to I-10/SR-2 (PM LA 34.6), and from Las Posas (PM VEN10.2) to US-101 (PM VEN 21.08).

SR-1 is a California Legal Truck Route from LA County (PM 34.6) to Las Posas in Ventura County (PM 10.2). There are some restrictions: From SR-27 (Topanga Cyn. Blvd. PM LA 40.8) to SR-23, Decker Rd., (PM LA 59.9) as follows: "No through trucks with 4 or more axles."

Also, SR-1 is restricted at the Sepulveda Tunnel as follows: "No Flammables/combustibles in Sepulveda Tunnel at SR 105 (PM LA 25.9)".

SR-1 is a part of the Freeway and Expressway System from the LA/VEN County Line to US 101 (near El Rio).

SR-1 is used extensively for recreational, intra and interregional travel. For the purpose of this analysis, the route is divided into 24 segments based on traffic volume, connections to local streets or State Highways, freeway interchanges, and the county boundary. Segment 22 was recently relinquished while Segment 23, from SR-1 to US 101 via Rice Road is currently pending adoption by the State of California.

Functional Classification

SR-1's **Functional Classification** varies and includes the followings;

In Los Angeles County:

From PM 0.00 to 34.6 (I-10 to SR-2)…….Other Principal Arterial (3)

From 34.6 to 35.2 (End of McClure Tunnel)……..Other Freeway or Express Way (2)

From 35.2 to 58.7 (0.2 Mile North of Broad Beach Road….Other Principal Arterial (3)

From 58.7 to LA/Ventura County Line……..Minor Arterial (4)

In Ventura County:

From LA/Ventura County Line to 9.866 (0.3 mile S. of Las Posas Rd)….Minor Arterial (4)

From 9.866 (0.3 mile S. of Las Posas Rd) to 15.1 (Pleasant Valley Rd)….Other Principal Arterial (3)

PM 15.1 (Pleasant Valley Rd) to 16.66 (Stratham Blvd.) US 101…..Other FWY or Expressway (2)

PM 16.66 (Stratham Blvd) to Route 101…… Other Principal Arterial (3)

From 1.3 miles north of Rte 33 to 2.8 miles south of Ven/SB Co. Line……..Major Collector

SR-1 DESIGNATION AND CHARACTERISTICS																		
Segs.	Freeway and Expressway System	National Highway System	Strategic Highway Network	Scenic Highway	Interregional Road System Route	High Emphasis Route	Focus Route	Functional Classifi-cation	Goods Movmnt. Route	Truck Desig-nation	Rural/ Urban	RTPA	MPO	CMA	Local Agency	Tribes	Air District	Terrain
1	NO	YES	NO	Yes - Ell.	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
2	NO	YES	NO	Yes - Ell.	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
3	NO	YES	NO	NO	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
4	NO	YES	NO	NO	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
5	NO	YES	NO	NO	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
6	NO	YES	NO	NO	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
7	NO	YES	NO	NO	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
8	NO	YES	NO	NO	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
9	NO	YES	NO	NO	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
10	NO	YES	NO	NO	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
11	NO	YES	NO	NO	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
12	NO	YES	NO	NO	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
13	NO	YES	NO	Yes - Ell.	YES	NO	NO	OPA	NO	STAA	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Flat
14	NO	YES	NO	Yes - Ell.	YES	NO	NO	OFE	NO	-	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Rolling
15	NO	YES	NO	Yes - Ell.	YES	NO	NO	OPA	NO	-	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Rolling
16	NO	YES	NO	Yes - Ell.	YES	NO	NO	OPA	NO	-	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Rolling
17	NO	YES	NO	Yes - Ell.	YES	NO	NO	OPA	NO	TR	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Rolling
18	NO	YES	NO	Yes - Ell.	YES	NO	NO	OPA/MA	NO	TR	Urban	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Rolling
19	NO	YES	NO	Yes - Ell.	YES	NO	NO	MA	NO	STAA	Rural	Metro	SCAG	Metro	Metro	N/A	SCAQMD	Rolling
20	YES	YES	NO	Yes - Ell.	YES	NO	NO	MA	NO	STAA	Rural	VCTC	SCAG	VCTC	VCTC	N/A	SCCAQMD	Rolling
21	YES	YES	NO	Yes - Ell.	Yes	NO	NO	OPA or OFE	NO	STAA	Rural	VCTC	SCAG	VCTC	VCTC	N/A	SCCAQMD	Flat
22	Relinquished		-	-	-	-	-	-	-	-	Rural	VCTC	SCAG	VCTC	VCTC	N/A	SCCAQMD	Flat
23	Pending Adoption		-	-	-	-	-	-	-	-	Rural	VCTC	SCAG	VCTC	VCTC	N/A	SCCAQMD	Flat
24	NO	YES	NO	NO	NO	NO	NO	MC	NO	STAA	Rural	VCTC	SCAG	VCTC	VCTC	N/A	SCCAQMD	Flat

Ell: Eligible but not officially designated.

OPA: Other Principal Arterial

MA: Minor Arterial

TR: Truck Restriction

OF or E: Other Freeway or Expressway

SCCAQMD: South Central Coast Air Quality Management District

MC: Major Collector

COMMUNITY CHARACTERISTICS

SR-1 is a Conventional, Freeway and Expressway facility type in a mostly urbanized corridor providing access to the Cities of Carson, Culver City, El Segundo, Gardena, Hermosa Beach, Long Beach, Los Angeles, Malibu, Manhattan Beach, Redondo Beach, Santa Monica, Signal Hill, Torrance, in Los Angeles County. In conjunction with US 101, SR-1 also provides access to the cities of Oxnard and Ventura in Ventura County.

LAND USE

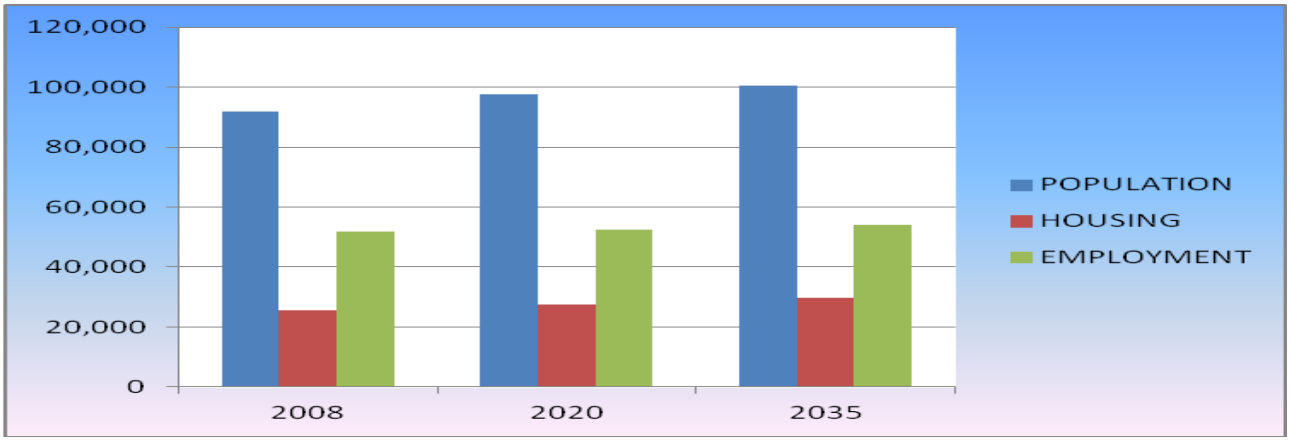
The SR-1 corridor is congested in certain areas, highly developed and the land use varies from residential, commercial, to industrial. Some significant trip generators along this corridor include:

- Los Angeles International Airport (LAX)
- LAX City Bus Center
- Loyola Marymount University
- California State University, Long Beach
- Long Beach City College
- California State University, Dominguez Hills
- Los Angeles County – Harbor UCLA Medical Center
- South Bay Galleria
- El Camino College
- Port of Los Angeles (POLA)
- Port of Long Beach (POLB)
- Port of Hueneme
- Santa Monica Pier
- Santa Monica College
- Venice Beach
- Torrance Municipal Airport
- Otis College of Arts and Design
- Playa Vista Development
- Pepperdine University
- Point Mugu Naval Air Station
- Oxnard College

Significant growth in housing, population, and employment are generally projected throughout the SR-1 corridor area. This growth is expected to occur through in fill and recycling of existing land uses. The following tables and graphs show projected socioeconomic growth in some of the Cities along SR-1 Corridor per the SCAG 2012 -2035 RTP/SCS GROWTH FORECAST.

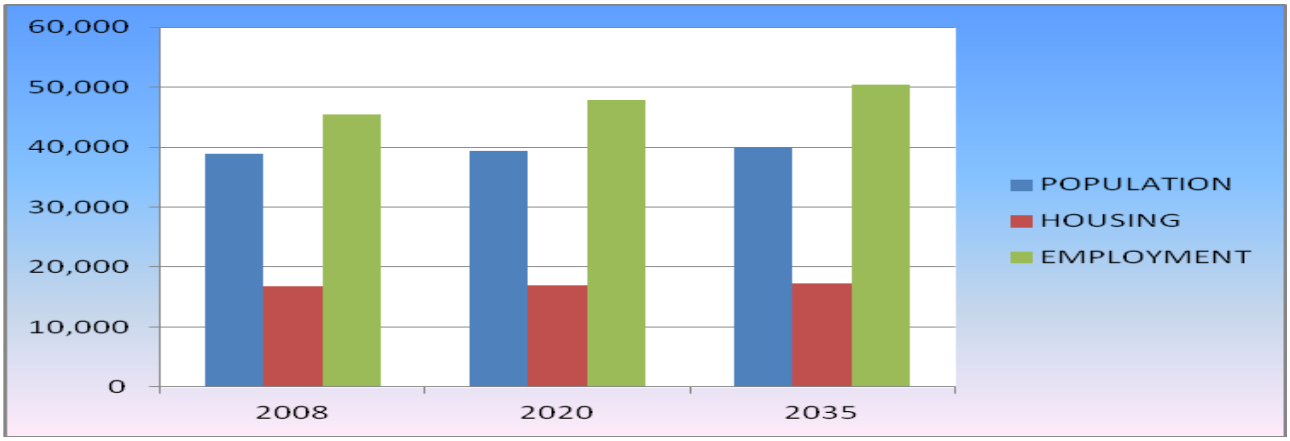
CARSON

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	91,700	97,500	100,600	6.32%	9.71%
HOUSING	25,500	27,400	29,600	7.45%	16.08%
EMPLOYMENT	51,900	52,500	54,000	1.16%	4.05%



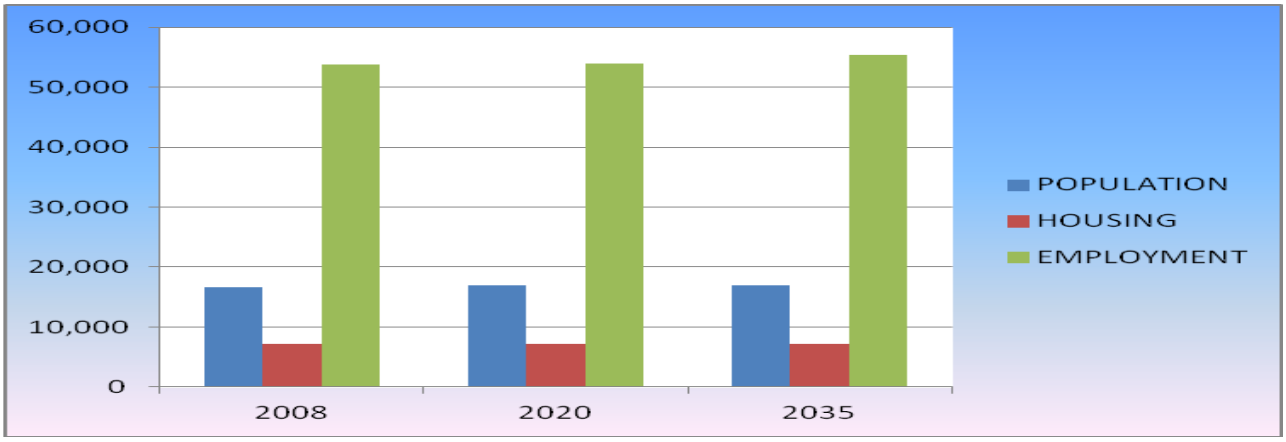
CULVER CITY

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	38,900	39,300	40,000	1.03%	2.83%
HOUSING	16,800	17,000	17,300	1.19%	2.98%
EMPLOYMENT	45,400	47,900	50,400	5.51%	11.01%



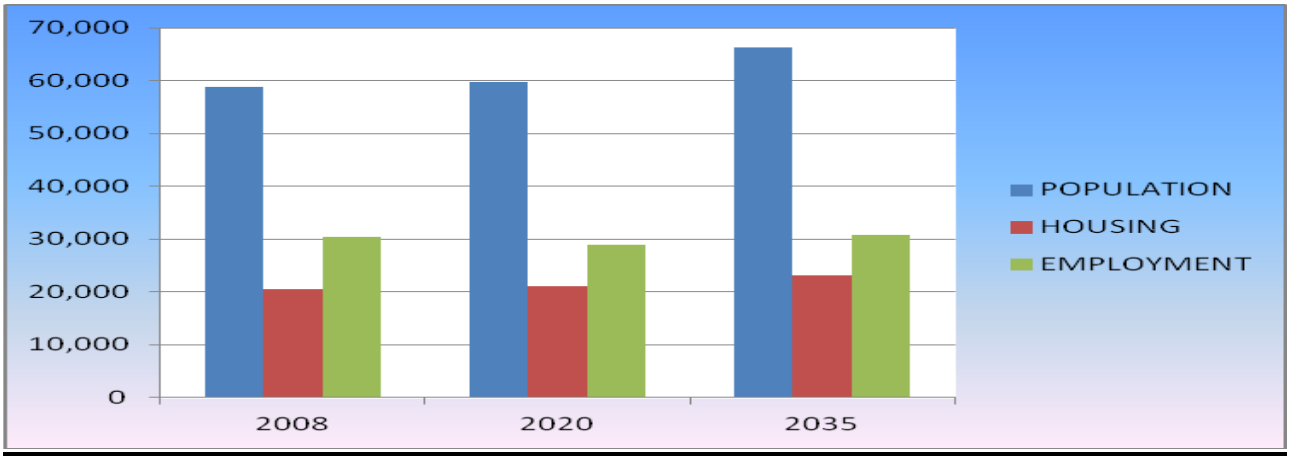
EL SEGUNDO

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	16,700	16,900	17,000	1.20%	1.80%
HOUSING	7,100	7,200	7,200	1.41%	1.41%
EMPLOYMENT	53,800	54,000	55,400	0.37%	2.97%



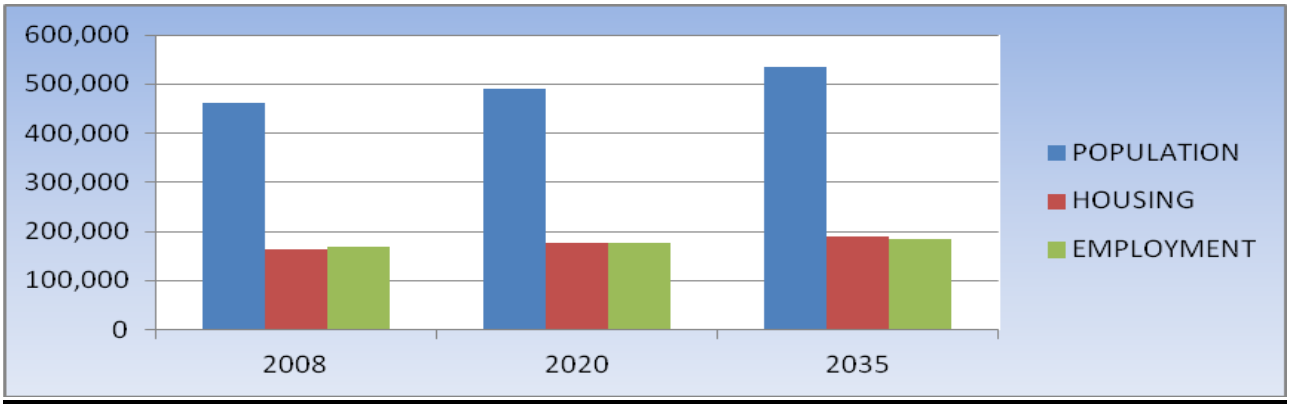
GARDENA

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	58,800	59,700	66,200	1.53%	12.59%
HOUSING	20,500	21,000	23,200	2.44%	13.17%
EMPLOYMENT	30,500	28,900	30,700	-5.25%	0.66%



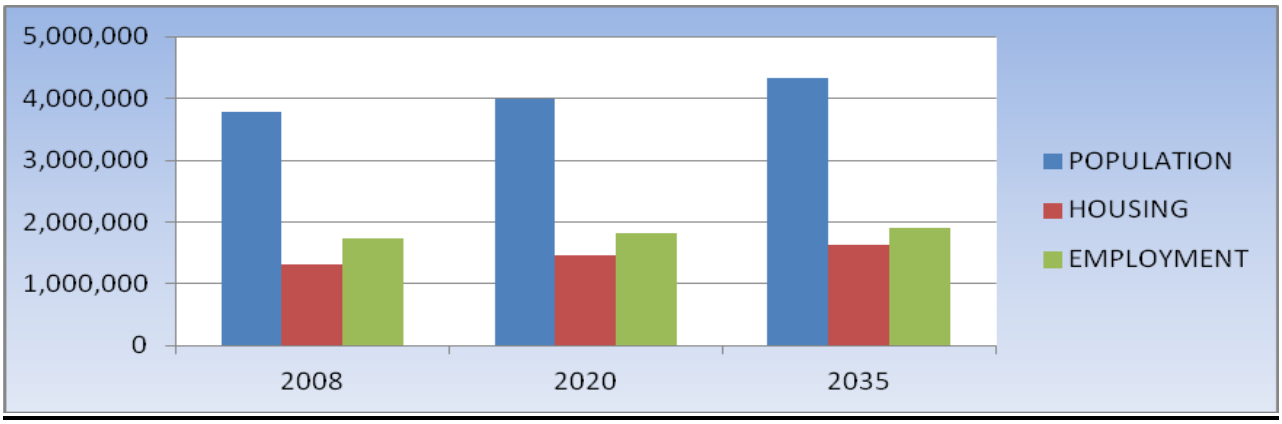
LONG BEACH

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	462,200	491,000	534,100	6.23%	15.56%
HOUSING	163,500	175,600	188,900	7.40%	15.54%
EMPLOYMENT	168,100	176,000	184,800	4.70%	9.93%



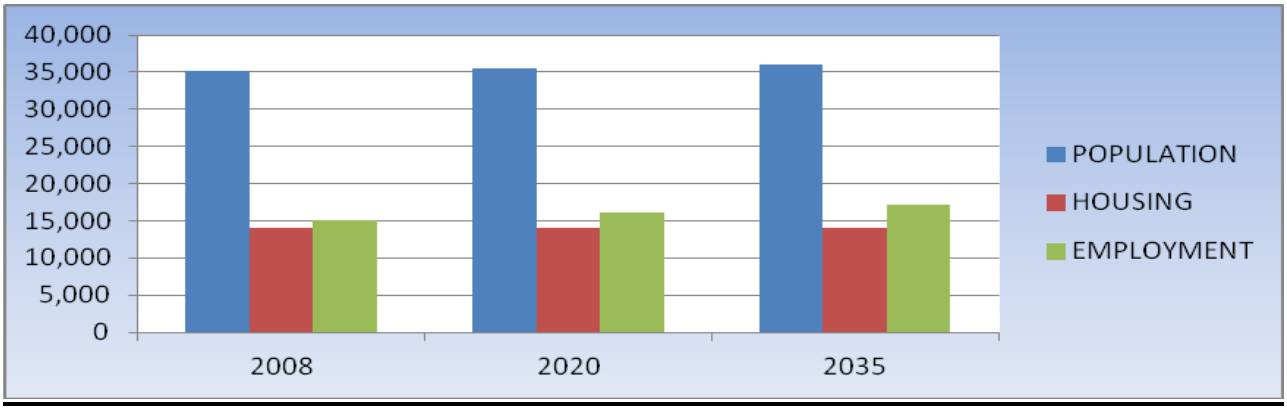
LOS ANGELES

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	3,770,500	3,991,700	4,320,600	5.87%	14.59%
HOUSING	1,309,900	1,455,700	1,626,600	11.13%	24.18%
EMPLOYMENT	1,735,200	1,817,700	1,906,800	4.75%	9.89%



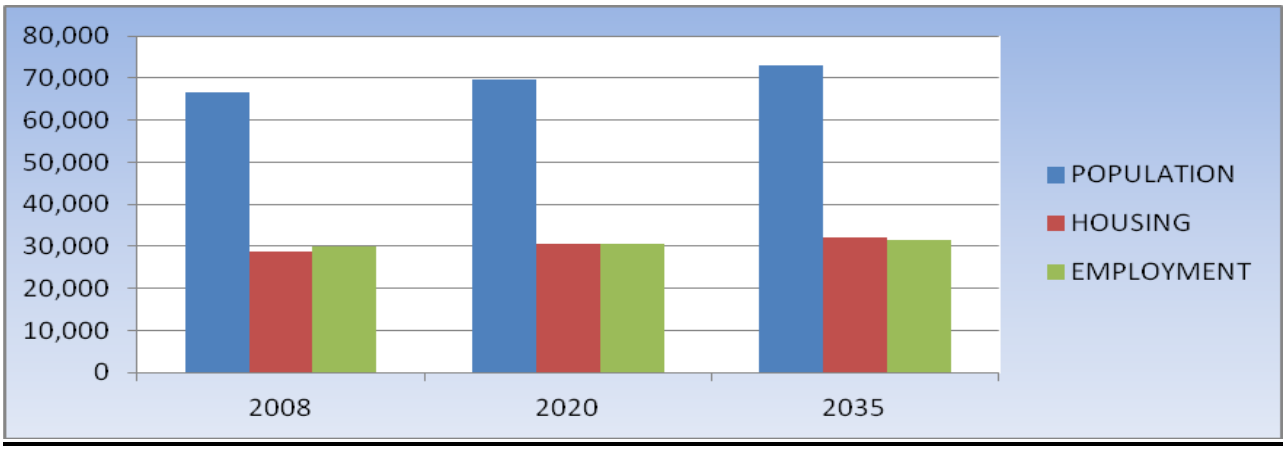
MANHATTAN BEACH

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	35,100	35,500	36,000	1.14%	2.56%
HOUSING	14,100	14,100	14,100	0.00%	0.00%
EMPLOYMENT	15,100	16,100	17,200	6.62%	13.91%



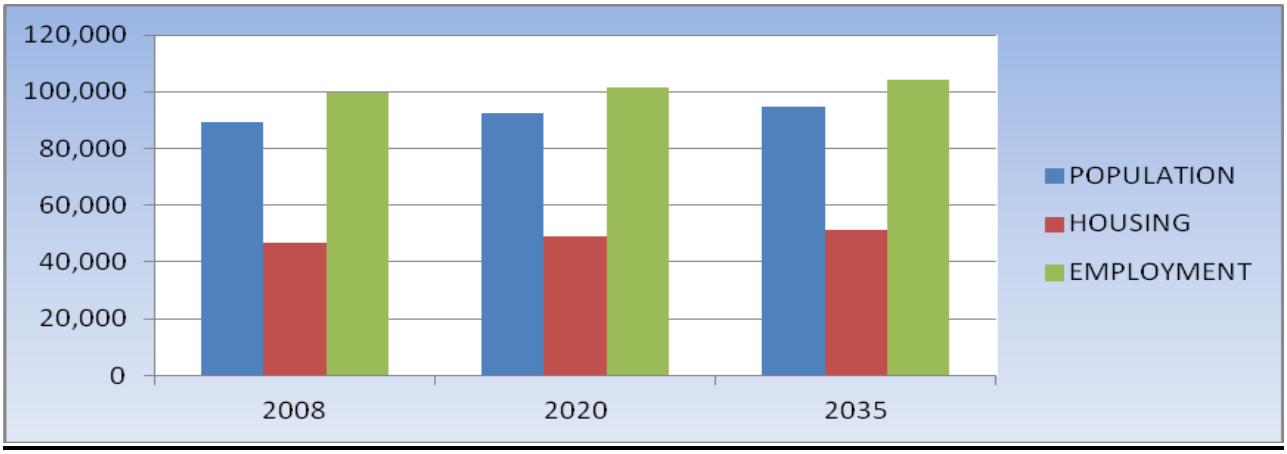
REDONDO BEACH

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	66,500	69,700	73,000	4.81%	9.77%
HOUSING	28,900	30,700	32,000	6.23%	10.73%
EMPLOYMENT	30,100	30,600	31,600	1.66%	4.98%



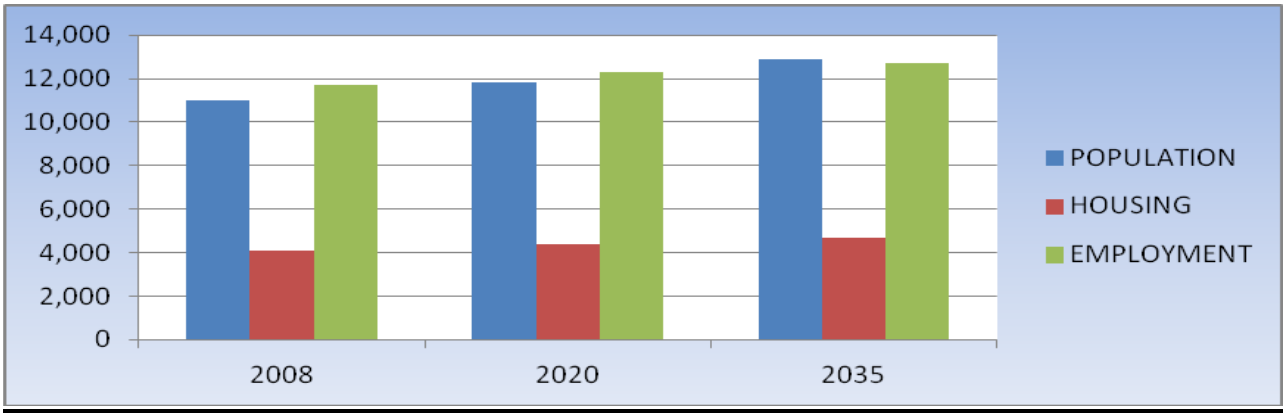
SANTA MONICA

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	89,100	92,400	94,700	3.70%	6.29%
HOUSING	46,600	49,200	51,400	5.58%	10.30%
EMPLOYMENT	99,500	101,600	104,200	2.11%	4.72%



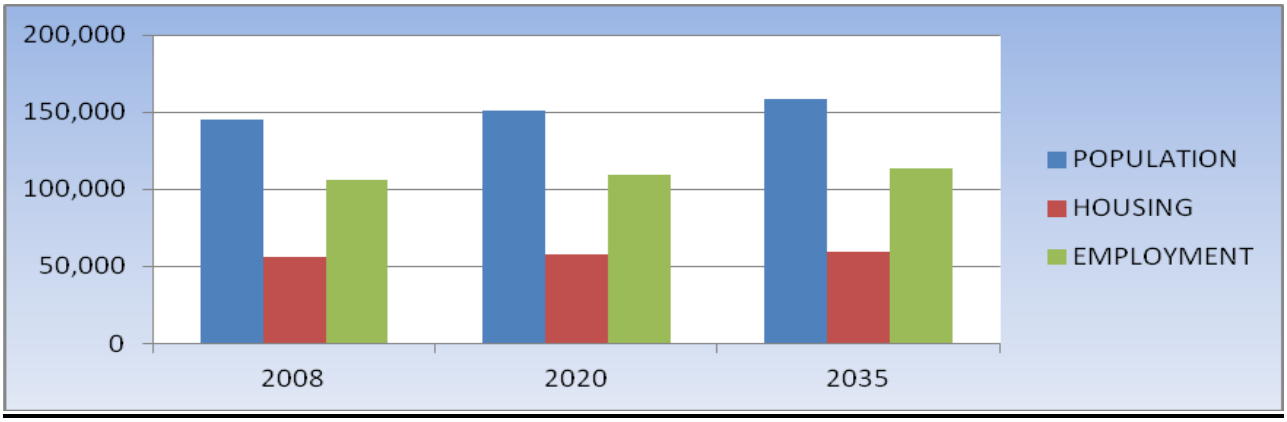
SIGNAL HILL

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	11,000	11,800	12,900	7.27%	17.27%
HOUSING	4,100	4,400	4,700	7.32%	14.63%
EMPLOYMENT	11,700	12,300	12,700	5.13%	8.55%



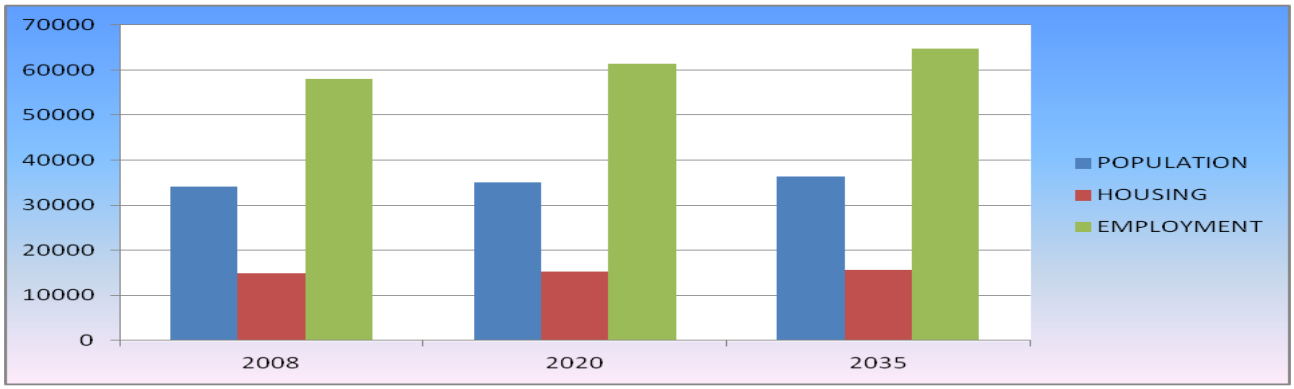
TORRANCE

	2008	2020	2035	2008 - 2020 CHANGE	2008 -2035 CHANGE
POPULATION	145,000	150,800	158,500	4.00%	9.31%
HOUSING	55,800	57,800	59,800	3.58%	7.17%
EMPLOYMENT	105,800	109,100	113,300	3.12%	7.09%



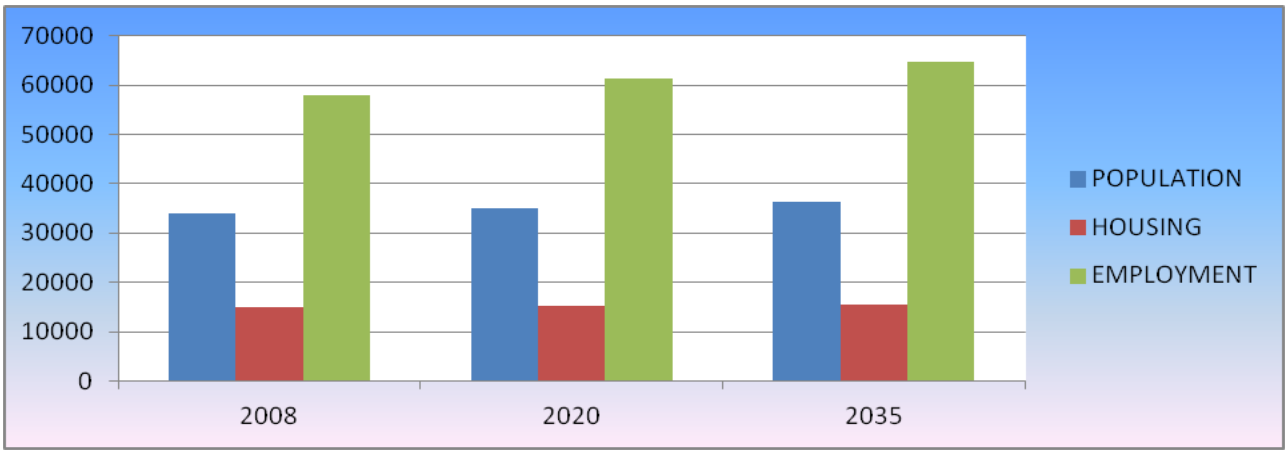
LOMITA

	2008	2020	2035	2008- 2020 CHANGE	2008 – 2035 CHANGE
POPULATION	20,300	21,000	29,000	3.45%	42.86%
HOUSING	8,100	8,100	8,200	0.00%	1.23%
EMPLOYMENT	7,000	7,300	7,700	4.29%	10.00%



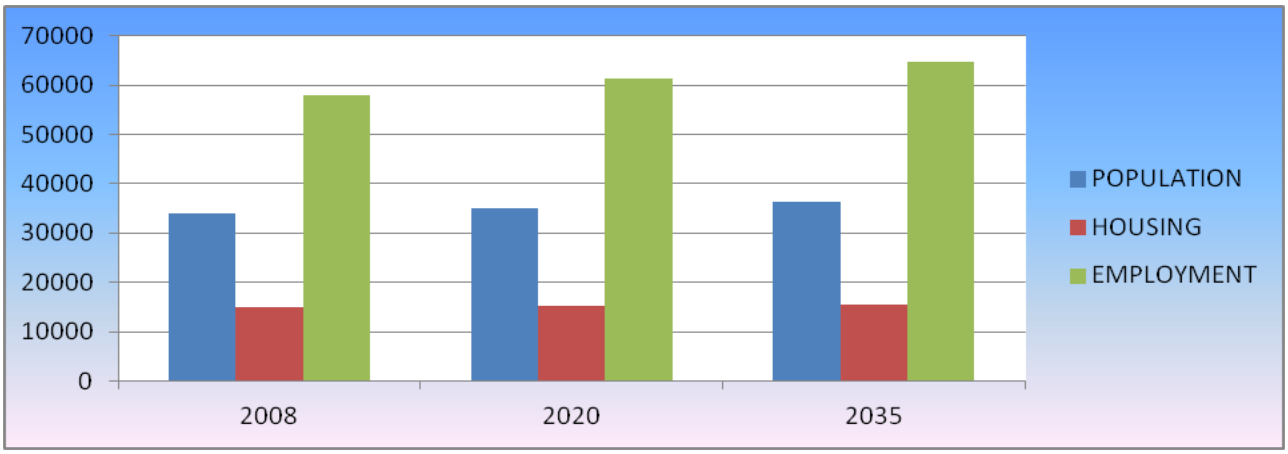
MALIBU

	2008	2020	2035	2008 - 2020 CHANGE	2008 – 2035 CHANGE
POPULATION	12,600	13,800	14,800	9.52%	17.46%
HOUSING	5,300	5,400	6,100	1.89%	15.09%
EMPLOYMENT	8,900	8,900	9,900	0.00%	11.24%



OXNARD

	2008	2020	2035	2008 - 2020 CHANGE	2008 – 2035 CHANGE
POPULATION	193,900	216,700	244,500	11.76%	26.10%
HOUSING	49,100	85,800	70,600	74.75%	43.79%
EMPLOYMENT	59,000	64,000	69,800	8.47%	18.31%



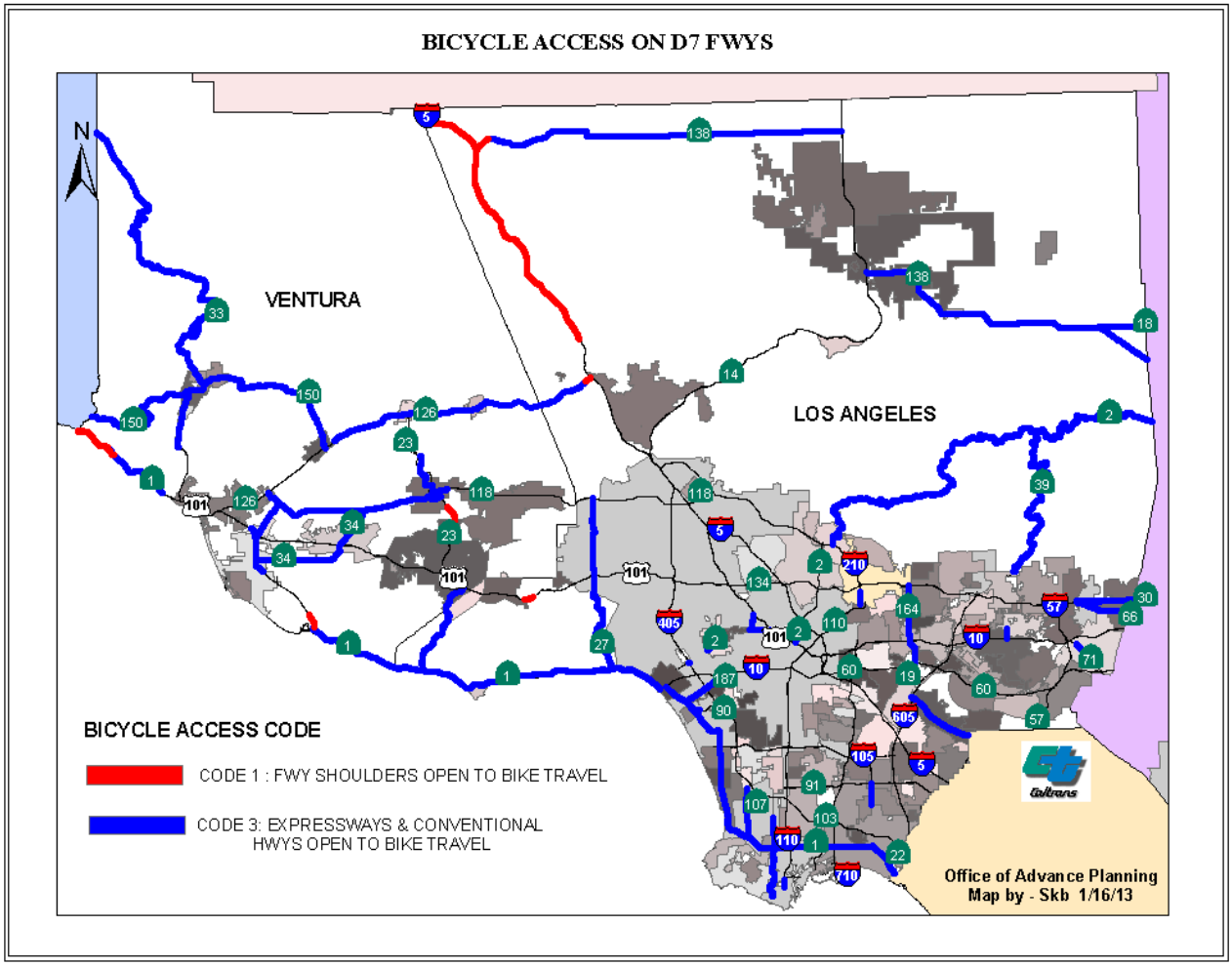
SYSTEM CHARACTERISTICS

For purpose of analysis, the SR-1 is divided into 24 segments based on logical termini including intersections, jurisdiction and changes in land use.

SR-1 Existing Facility					
Segments	**Post Mile**	**Functional Classification**	**Lanes**	**Centerline Miles**	**Lane Miles**
1	0.00-1.97	Other Prin. Arterial	2	1.97	3.94
2	1.97-3.55	Other Prin. Arterial	2	1.59	3.18
3	3.55-7.28	Other Prin. Arterial	2	3.73	7.46
4	7.28-13.10	Other Prin. Arterial	3	5.81	17.43
5	13.10-21.91	Other Prin. Arterial	2	8.82	17.64
6	21.91-24.91	Other Prin. Arterial	4	2.99	11.96
7	24.91-25.92	Other Prin. Arterial	3	1.01	3.03
8	25.92-26.90	Other Prin. Arterial	3	1.09	3.27
9	26.90-27.36	Other Prin. Arterial	4	0.35	1.4
10	27.36-29.08	Other Prin. Arterial	3	1.72	5.16
11	29.08-30.47	Other Prin. Arterial	2	1.39	2.78
12	30.47-31.78	Other Prin. Arterial	3	1.31	3.93
13	31.78- R34.57	Other Prin. Arterial	2	R2.8	R5.6
14	35.18-35.24	Other FWY or EXP	3	0.23	0.69
15	35.24-39.32	Other Prin. Arterial	3	4.09	12.27
16	39.32-40.76	Other Prin. Arterial	2	1.44	2.88
17	40.76-54.02	Other Prin. Arterial	2	13.25	26.5
18	54.02-59.90	Other Prin. Arterial	2	5.88	11.76
19	59.90- LA 62.86	Minor Arterial	2	2.97	5.94
20	0.00-9.86	Minor Arterial	1	9.87	9.87
21	9.86-15.10	Other FWY/EXP/OPA	2	6.79	13.58
22	15.10-21.08	Relinquished	-	-	-
23		Pending Adoption	-	-	-
24	21.08-28.48	Major Collector	1	7.23	7.23

ACTIVE TRANSPORTATION FACILITY

The following map shows the Bicycle Access on District 7 freeways. Access Code 1 (red) represents Freeway shoulders open to bike travel and Access Code 3 (blue) showing Expressways & Conventional highways open to Bicycle travel in District 7. The followings show the importance of Active Transportation for the department;



In addition to Senate Bill No. 99 (SB-99) of September 26, 2013 pertaining to Active Transportation funding, California Department of Transportation Deputy Directive (DD-64-R1 of October 2, 2008) views all transportation improvements as opportunities to improve safety, access and mobility for all travelers in California and recognizes bicycle, pedestrian and transit modes as integral elements of the transportation system. Bicycle, pedestrian and transit travel is facilitated by creating "complete streets" beginning early in System Planning and continuing through project delivery, maintenance and operations.

In addition, the Complete Streets Act of 2008 (AB. No. 1358 of September 30, 2008) requires cities and counties to incorporate the concept of Complete Streets into their General Plan Updates to ensure that transportation plans meet the needs of all users of our roadway system. Also, California Vehicle Code and Streets and Highway Code Section 888 states that the Department shall not construct a state highway as a freeway that will result in the severance or destruction of an existing major route for non-motorized transportation traffic and light motorcycles, unless it provides a reasonable, safe, and convenient alternate route or such a route exists. (Revised 10/4/2013. Page 7 of 11)

SCAG's 2012-2035 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) invests $6.7 billion towards increasing bikeways, bringing sidewalks into compliance with Americans with Disabilities Act, safety improvements and other Active Transportation Strategies.

Also, the United States Department of Transportation (US DOT) Policy Statement on bicycle and pedestrian accommodation (March 11, 2010) states that US DOT encourages transportation agencies to go beyond the minimum requirements, and proactively provide convenient, safe and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate.

Based on Caltrans context sensitive, smart mobility and complete streets policies and the Governor Office's Climate Action and Sustainability Plan; "where the existing freeway or highway corridor has severed routes and has decreased connectivity between communities, employment hubs, schools, wild life corridors, every effort will be made to re-establish those lost connections on any project along the corridor."

It is obvious from the above that Active Transportation is of great importance along SR-1 due to its strategic location and its large tourist "draw". SB-99, the listed Caltrans Deputy Directive, California Vehicle and Highway Code, SCAG's 2012 RTP/SCS and US DOT Policy Statements all support Complete Streets including bicycle and pedestrian facilities for SR-1.

Issues bicyclists and pedestrians experience on SR-1 include among others, the followings;

1. Safety
2. Travel across SR-1 including interchanges
3. Structural or other limitations to shoulder widening
4. Shoulder pavement quality
5. Suitable alternate routes

Future improvements should be focused on addressing the listed issues in coordination and funding with local agencies such as, VCTC and SCAG. Developing creative solutions for new alternative bicycle routes and improving existing bicycle routes would be beneficial for all users.

PARK AND RIDE/BICYCLE FACILITIES[1]

SR-1 has several Park and Ride and Bicycle Facilities located in close proximity however, none of these facilities are owned and/or operated by Caltrans. Metro owns and/or leases them from private entities. The table below lists these facilities.

SR-1 PARK 'N RIDE LOTS/BICYCLE STORAGE.

CITY/ COMMUNITY	LOCATION	CAPACITY	OWNER/ OPERATOR	BICYCLES L/R/S	TRANSIT
EL SEGUNDO	Douglas Green Line Station	30	METRO	L/R	Metro
	Aviation/LAX	390	METRO	L/R	Green Line
	Mariposa	-	METRO	R	Torrance Transit
					Santa Monica BBB
EL SEGUNDO	Lakewood Blvd. Green Line Station	414	METRO	L/R	Metro
	Lakewood West Lot	83			Commuter Express
	El Segundo Green Line Station	91			Torrance Transit
LONG BEACH	Wardlow Blue Line Station	131	METRO	L/R	Metro, Long Beach Transit
LONG BEACH	Willow Blue Line Station	899	METRO	L/R	Metro, Long Beach Transit
REDONDO BEACH	Redondo Beach Green Line Station .	753	METRO	L/R	Metro, LA DOT Commuter Express, Torrance Transit
WILMINGTON	PCH Wilmington/Harbor Park	234	METRO	L/R	Metro, Commuter Express, Torrance Transit
OXNARD	Metrolink Station	75	METRO		Metro, Gold Coast Transit

L/R/S: Lockers/Racks/Stations
P-'N-R – Park and Ride
[1]Source: LACMTA Park 'n Ride Lots 2014.

TRANSIT FACILITY

The transit component for SR-1 embodies a multi-modal system including carpooling, express transit service, interregional and intra-regional travel and shipping route. The Los Angeles County Metropolitan Transportation Authority (LACMTA) commonly branded as METRO, Metrolink and Los Angeles Department of Transportation (LADOT) Commuter Express currently serve this route. In addition to these agencies, other transit providers (Torrance Transit, Long Beach Transit, Gardena Municipal Bus Line, Santa Monica Bus Lines, Carson Circuit, Lawndale Trolley, Culver City Bus Lines and Municipal Area Express) also offer services in close proximity to SR-1. City of Oxnard Transit and Gold Coast Transit offer bus services in

SR-1 TCR TRANSIT INFORMATION - D7

EXISTING SERVICE ON SR-1

Route	From/To	Operator	Route #	Name/Description	Service Type	Service Span	Notes
1	Ventura-Oxnard	VISTA	101	Hwy 101	Express	All Day	60 Min Freq.
1	Trancas Cyn. Rd-Ocean Ave	LACMTA	534	Malibu-Washington/Fairfax TC	Express	7 Days	30 Min Freq.
1	Pico-Manchester	SM Big Blue Bus	3	Lincoln Blvd.-Montana Ave	Local	7 Days	15 Min Freq.
1	Pico-96th St	SM Big Blue Bus	R3	Lincoln Corridor	Rapid	Weekdays	15-30 Min Freq.
1	96th St-I-110	LACMTA	232	LAX City Bus Ctr-Long Beach	Local	7 Days	15-30 Min Freq.
1	I-110-Watson Ave	LADOT	DASH	Wilmington	Community	7 Days	15 Min Freq.
1	Wilmington Ave-Pacific Ave	Torrance Transit	3	Redondo Beach-Long Beach	Local	7 Days	15 Min Freq.
1	Avalon Blvd-Pacific Ave	Torrance Transit	R3	Redondo Beach-Long Beach	Rapid	Weekdays Peak-Hour	20 Min Freq.
1	Santa Fe-Studebaker	Long Beach Transit	171	PCH/Palo Verde/Studebaker/Ximeno	Local	7 Days	20 Min Freq
1	Pacific Ave-Ximeno	Long Beach Transit	172/173/174	PCH	Local	7 Days	15 Min Freq.
1	Bellflower Blvd-County Line	OCTA	1	Long Beach-San Clemente	Local	7 Days	60 Min Freq

INTERMODAL TRANSIT CENTERS AND STATIONS LOCATED ON OR NEAR SR-1 CORRIDOR

Route	Location	City	Operator	Transit Service	Service Type	Service Span	Notes
1	Ventura Amtrak Station	Ventura	City of Ventura	Amtrak	Intercity	7 Days	Ventura County Fairgrounds
				Amtrak Thruway Bus	Intercity	7 Days	
1	Ventura Transit Center	Ventura	Gold Coast Transit	Gold Coast Transit 6,10,11,16,21	Local	7 Days	Pacific View Mall
				VISTA 101	Local	7 Days	
1	Oxnard Transit Center	Oxnard	City of Oxnard	Amtrak	Intercity	7 Days	Free Parking
				Amtrak Thruway Bus	Intercity	7 Days	
				Greyhound	Intercity	7 Days	
				Gold Coast Transit 1A,1B,2,3,	Local	7 Days	
				4A,4B,5,6,8,18,19,20			
				Metrolink Ventura Co. Line	Commuter	Weekdays	
1	LAX Transit Center	Los Angeles	Metro	Metro 40 Owl,102,111,117,232,311	Local, Limited	7 Days	Parking Available
				Beach Cities Transit 109	Local	7 Days	
				Culver City Bus 6,R6	Local, Rapid	7 Days Local	
				Santa Monica BBB 3,R3	Local, Rapid	7 Days Local	
				Torrance Transit 8	Local	7 Days	
1	Aviation/LAX Metro Station	El Segundo	Metro	Metro Green Line	Light Rail	7 Days	Free Parking
				Metro 120,625,40 Owl	Local, Community	7 Days	
				LAX Shuttle G	Circulator	7 Days	
				Beach Cities Transit 109	Local	7 Days	
				Culver City Bus 6,R6	Local, Rapid	7 Days Local	
				LADOT 438	Commuter Express	Weekdays Peak	
				Gardena Bus Line 5		Weekdays	
				Santa Monica BBB 3,R3	Local, Rapid	7 Days Local	
1	Mariposa Metro Station	El Segundo	Metro	Metro Green Line	Light Rail	7 Days	Parking Unknown
				Metro 232	Local	7 Days	
				Torrance Transit 8	Local	7 Days	

Route	Location	City	Operator	Transit Service	Service Type	Service Span	Notes
1	El Segundo Metro Station	El Segundo/ Torrance	Metro	Metro Green Line	Light Rail	7 Days	Free Parking
				LADOT 574	Commuter Express	Weekdays Peak	
1	Douglas Metro Station	El Segundo	Metro	Metro Green Line	Light Rail	7 Days	Free Parking
				Metro 125	Local	7 Days	
				Beach Cities Transit 109	Local	7 Days	
1	Redondo Beach Metro Station	Redondo Beach	Metro	Metro Green Line	Light Rail	7 Days	Free Parking
				Metro 126,215	Local	7 Days	
				Beach Cities Transit 102	Local	7 Days	
				LADOT 574	Commuter Express	Weekdays Peak	
				Lawndale Beat Express	Local	7 Days	
1	I-110/Pacific Coast Highway	Los Angeles	Metro	Metro 205,232,450	Local, Express	7 Days	Harbor FWY Busway
	Metro Station			DASH Wilmington	Community	7 Days	
				LADOT 448	Commuter Express	Weekdays Peak	
1	Willow Metro Station	Long Beach	Metro	Metro Blue Line	Light Rail	7 Days	Free Parking
				Metro 60 (Owl)	Local	7 Days	
				Long Beach Transit 51,101,102,	Local	7 Days	
				103,104			
1	Pacific Coast Highway	Long Beach	Metro	Metro Blue Line	Light Rail	7 Days	On-Street Station
	Metro Station			LBT 1,51,171,172,173,174, 176	Local	7 Days	

Ventura County. Amtrak and Metrolink serve portions of SR-1 from segments 22 through 24 in Ventura County. The tables below depict specific bus and train schedules plying the SR-1 area.

COMMENTS

Metro Bus 534 operates between Malibu, Downtown Santa Monica, Culver City Expo Line Station and Washington/Fairfax Transit Center.
Santa Monica Big Blue Bus 3, R3 operates between Downtown Santa Monica, LAX City Bus Center and Metro Green Line Aviation Station.
Metro Bus 232 operates between LAX City Bus Center, Metro Green Line Aviation Station and Metro Blue Line Transit Mall Station.
Long Beach Transit 171 operates between Metro Blue Line Transit Mall Station and CSULB/VA
OCTA 1 operates between CSULB/VA Area and Orange County Line, continuing south to San Clemente Metrolink.

FUTURE SERVICE
Metro Expo Line will be extended from Culver City to Downtown Santa Monica in 2016.
Metro Crenshaw/LAX Line will extend from Metro Expo Crenshaw Station to LAX area in 2019.

Source: District 7 Office of Mass Transportation

FREIGHT

The economic vitality and well being of the Greater Los Angeles region depends upon the safe and timely transport of goods as well as people. Current levels of congestion are detrimental to this vitality, and future projections indicate that this situation will get much worse. Southern California's aging transportation system is at capacity, serving a population in Los Angeles County of approximately ten million people. District 7 has five of the ten worst truck bottlenecks in the U.S. Truck vehicle miles traveled (VMT) is expected to double by 2030. Significant actions thus need to be taken to protect the economic well being of the region. These include improved rail service, including more grade separations; additional and improved intermodal transfer facilities; truck lanes on major truck routes; improved access to and enhanced cargo handling capabilities at seaports like Port Hueneme: and improved air cargo accessibility with separation from passenger activities at airports.

From Topanga Canyon Road (PM LA-40.8) to Las Posas Road (PM VEN-10.2) (segments 17 to 20) have truck restrictions limiting trucks with four or more axles.

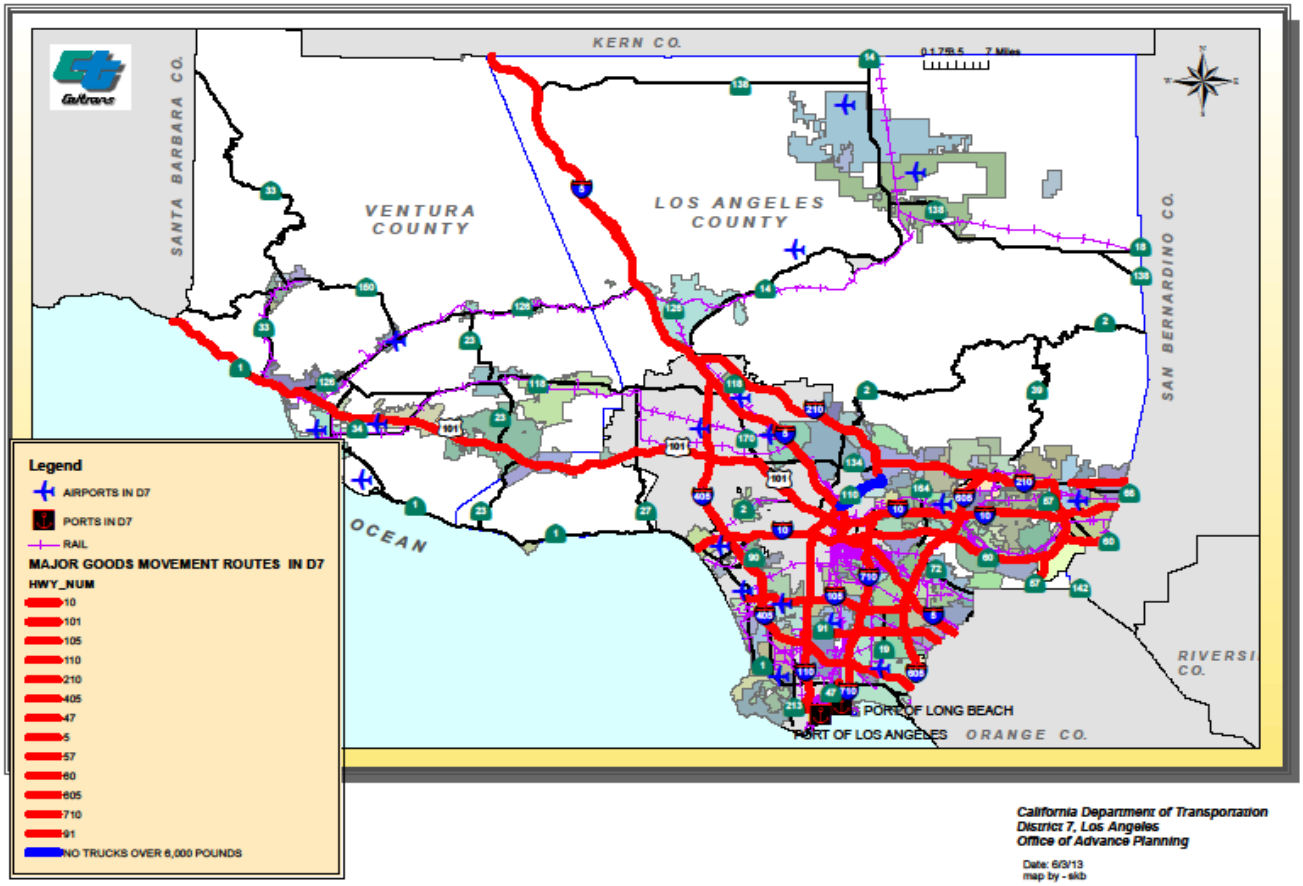
Truck volumes in 2008 range from 0.89% to 11.55% of ADT. Regionally, truck traffic is expected to increase by over 50% by 2025, with virtually no capacity available to handle this added volume.

Burlington Northern, Santa Fe (BNSF) rail serves segment 22 of SR-1.

Seaports: The ports of Los Angeles and Long Beach are near SR-1. These two ports combined are the largest port complexes in the United States. It is expected that most port cargo going less than 800 miles will be transported by truck. These are full service ports, handling in particular containers, autos, and bulk cargo. Together they are the third busiest in the world, and are forecasted to triple in both domestic and international cargo volumes by 2025.

Port Hueneme is another important port handling fruits and vegetables as well as automobiles. It is the fourth largest port in the State of California and supports 4,500 jobs in Ventura County. Over $7 billion in cargo value move through Port of Hueneme each year and is one of the nation's busiest banana importing ports and included in the nation's top ten automobile importing ports.

D7 GOODS MOVEMENT CORRIDOR MAP



ENVIRONMENTAL CONSIDERATION

California is known for traffic congestion and its impacts. Pollution of various types is typical in this region. Air quality, noise and water pollution are common. A complete assessment of environmental constraints would be determined by detailed studies and, depending on the specific location, may require consultation and/or permits from the Army Corp of Engineers, Fish and Wildlife Service, National Marine Fisheries Service, EPA, California Department of Fish and Game, California Regional Water Quality Control Board, California Coastal Commission, and the Cities and Counties Planning Departments. Below is the current attainment/nonattainment status of SR-1 Corridor in District 7.

POLLUTANTS	STATE DESIGNATION
Ozone (1hr)	Nonattainment
Ozone (8hr)	Nonattainment
CO (8hr)	Attainment
PM_{10} (24 hr.)	Nonattainment
$PM_{2.5}$ (24 hr.)	Nonattainment
NO_2 (Annual)	Nonattainment
SO_2 (1 hr)	Attainment
Lead	Nonattainment
Climate Change and Sea-Level Rise Vulnerability	High
Waters and Wetlands	High
Geology/Soils/Seismic	High
Floodplain	High

CORRIDOR PERFORMANCE

Segments.	AADT 2008	TOTAL TRUCK %	LOS 2008
1	32,000	2.67	F0
2	39,000	2.06	E
3	43,750	3.17	D
4	51,500	4.01	E
5	48,750	1.24	D
6	60,500	0.89	E
7	94,000	1.57	C
8	99,000	3.55	F0
9	55,750	6.81	E
10	42,250	2.46	B
11	55,000	1.28	E
12	54,500	1.77	F0
13	51,000	1.38	F0
14	65,500	4.65	E
15	61,500	4.59	F0
16	50,750	4.99	F3
17	28,500	6.39	F0
18	14,000	9.96	D
19	12,800	10.36	B
20	11,500	11.55	E
21	14,900	7.70	B
22	Relinquished	--	--
23	Pending Adoption	--	--
24	4,700	9.15	A

Basic System Operation						
Segs.	**AADT 2008**	**AADT 2035**	**LOS 2008**	**LOS 2035**	**VMT 2008**	**VMT 2035**
1	32,000	41,530	F0	E	90,642	86,363
2	39,000	41,656	E	E	53,811	53,694
3	43,750	54,740	D	D	187,548	192,568
4	51,500	44,619	E	E	258,443	272,105
5	48,750	33,083	D	D	280,855	294,507
6	60,500	37,673	E	E	117,803	120,089
7	94,000	45,312	C	E	33,022	33,375
8	99,000	79,590	F0	F0	69,582	72,032
9	55,750	64,030	E	F0	37,415	37,482
10	42,250	43,362	B	C	36,845	48,553
11	55,000	56,468	E	F0	75,344	111,121
12	54,500	59,915	F0	F0	68,688	82,133
13	51,000	41,360	F0	F0	105,153	116,711
14	65,500	67,186	E	E	24,523	24,685
15	61,500	71,026	F0	F1	279,789	284,729
16	50,750	64,908	F3	F3	92,047	93,595
17	28,500	34,970	F0	F0	349,887	361,669
18	14,000	21,015	D	D	161,447	185,140
19	12,800	18,247	B	C	45,824	54,472
20	11,500	18,625	E	F0	152,719	179,732
21	14,900	24,916	B	B	143,015	165,210
22	Relinquished	--	--	--	--	--
23	Pending Adoption	--	--	--	--	--
24	4,700	5,300	A	A	30,096	33,920

Truck Traffic				
Segments	Total Average Annual Daily Truck Traffic (AADT) 2008	Total Trucks (% of AADT) 2008	5 + Axle Average Annual Daily Truck Traffic (AADT) 2008	5 + Axle Trucks (% of AADT) 2008
1	853	2.67	377	1.18
2	804	2.06	389	1.00
3	1,388	3.17	732	1.67
4	2,065	4.01	1,530	2.97
5	604	1.24	245	0.50
6	539	0.89	189	0.31
7	1,474	1.57	604	0.64
8	3,510	3.55	1,752	1.77
9	3,795	6.81	2,035	3.65
10	1,039	2.46	463	1.10
11	703	1.28	264	0.48
12	963	1.77	398	0.73
13	704	1.38	276	0.54
14	3,047	4.65	1,849	2.82
15	2,823	4.59	1,745	2.84
16	2,531	4.99	1,628	3.21
17	1,821	6.39	1,240	4.35
18	1,395	9.96	979	6.99
19	1,326	10.36	937	7.32
20	1,328	11.55	935	8.13
21	1,147	7.70	731	4.91
22	Relinquished	--	--	--
23	Pending Adoption	--	--	--
24	430	9.15	40	0.85

CORRIDOR CONCEPT

CONCEPT RATIONALE

The transportation concept describes the operating conditions and physical facilities required to provide those conditions that could exist on SR-1 after considering the conclusions, priorities and strategies discussed in the District System Management Plan (DSMP), the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), 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 that management improvement strategies and system operation improvements to maximize the efficiency on SR-1 will be implemented.

The transportation concept is composed of a Level of Service (LOS) and facility component. The concept LOS indicates the minimum level of service the District would allow on a route prior to proposing an alternative to improve operating conditions. The concept facility is the facility that could be developed to maintain or attain the concept LOS.

PLANNED AND PROGRAMMED PROJECTS AND STRATEGIES

Route	County	Lead Agency	Project Description	Completion	RTP ID
1	LA	Hermosa Beach	From Artesia Blvd. to Anita/Herondo Streets: Widen and upgrade intersection including right and left turn pockets, restriping and re-signalization.	2014	10M0702-LA0G846
1	LA	Manhattan Beach	Manhattan Beach: between 33rd Street and Rosecrans Ave.; Add one through lane to North Sepulveda Blvd., Widen existing structure from 6 to 7 lanes.	2014	LA0C8080
1	LA	Los Angeles County	Improve SR-90/SR-1 Intersection. Add one lane in each direction. Construct a direct road between Admiralty Way and SR-90.	2018	LA0D260
1	VEN	Oxnard	Construct 6 lane grade separation at SR-1 and UPRR tracks with left turn pockets.	2014	5G0405

Demonstration Projects from Compass Blueprint (Compass Blueprint is a new way to look at how Southern California grows. It is driven by Mobility, Livability, Prosperity and Sustainability). Examples in close proximity to SR-1 (PCH).

1.) **Long Beach Blvd. Corridor Plan Phase 1 & 2** – Vision Plan and Specific Plan for Long Beach Blvd. Corridor and Willow Street; located 1 mile from I-405 south to Pacific Coast Highway (PCH) – Proposes increasing density along corridor, offset by reduced parking requirements and improved access to LA METRO Blue Line Stations.

2). **South Bay Cities Council of Governments (SBCCOG) Sustainable Arterials Feasibility Study** – One of three pilot areas is Marine Ave at I-405 – Strategic Plan for increasing multi-modal access, Neighborhood Electric Vehicle (NEV) use, modest increase in density, and development of local retail and services.

CONCLUSION

Traffic volume is forecasted to increase on SR-1 due to the growth in population, housing and employment along this route and throughout the region. Growth in the region will continue to create mobility challenges and put additional stresses on our transportation system. Southern California is not only an important component of California's economy but it is also vital to the United States and world's economies as a whole. It is critical that mobility be maintained and improved in order to sustain the economic growth that is expected. In addition to sustaining the economic vitality of the region, mobility is also an important component in enhancing the quality of life for the residents in this region. SR-1 is only one component of the transportation infrastructure but it plays a critical role in providing mobility for the region. In order to improve mobility, additional capacity will be required beyond those planned and programmed in the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to maintain an acceptable level of service through 2035.

District 7 Office employs a variety of strategies to address current congestion challenges including:

- High Occupancy Vehicle Lane (HOV)
- Ramp Metering
- Congestion Pricing (Toll Lanes)
- Changeable Message Signs (CMS), etc.

Several regional freeway capacity expansion projects are in the planning process, under development or under construction which will assist in decreasing congestion.

The highway system is only one component of the transportation infrastructure; but it plays a very important role in providing mobility for the region. To achieve the desired minimum acceptable level of service, additional lanes will be needed beyond those planned and programmed in the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

In addition to the projects on our system, Caltrans supports programs such as Transit Oriented Development (TOD). TOD is a moderate to higher density development, located within easy walk of major a transit stop. Generally with a mix of residential, employment and shopping opportunities designed for pedestrians. Research have shown that these types of development increase the number of trips made by transit, walking and cycling thus reducing the number of car trips and reducing tailpipe emissions.

SCAG's 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) identifies High Quality Transit Areas (HQTAs) meeting definitions established in SB 375. These areas are intended to direct and prioritize future growth, and further, establish eligibility for certain types of projects to access CEQA streamlining. Note, however, that residential and other types of development along freeways can be associated with increased health risk due to emissions exposure. Future projects should refer to available information resources, including but not limited to SCAG's 2012-2035 RTP/SCS Environmental Justice Appendix and Program Environmental Impact Report.

Appendix

GLOSSARY OF TERMS AND ACRONYMS

Acronyms

AADT	Annual Average Daily Traffic
ADT	Average Daily Traffic
AQMD	Air Quality Management District
CALTRANS	California Department of Transportation
CMP	Congestion Management Plan
FHWA	Federal Highway Administration
HOV	High Occupancy Vehicle Lane
HOT	High Occupancy Toll Lane
IC	Interchange
ITS	Intelligent Transportation System
LOS	Level of Service
MF	Mixed Flow Lane
MFE	Mixed Flow Equivalent
ML	Managed Lane
MPO	Metropolitan Planning Organizations
RTP	Regional Transportation Plan
RTIP	Regional Transportation Improvement Program
RTPA	Regional Transportation Planning Agency
SCAG	Southern California Association of Governments
SHOPP	State Highway Operation Protection Program
STIP	State Transportation Improvement Program
TL	Truck Lane
TDM	Transportation Demand Management
V/C	Volume to Capacity Ratio
VMT	Vehicle Miles Travel

DEFINITIONS

Annual Average Daily Traffic (AADT) - AADT is the total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30th.

Concept LOS – The minimum acceptable level of service over the next 20-25 years.

Facility Concept – Describes the facility and strategies that may be needed within 20-25 years. This can include capacity increasing, state highway, bicycle facility, pedestrian facility, transit facility, non-capacity increasing operational improvements, new managed lanes, conversion of existing managed lanes to another managed lane type or characteristic, TMS field elements, transportation demand management, and incident management.

Headway – The time between two successive vehicles as they pass a point on the roadway, measured from the same common feature of both vehicles.

Level of Service (LOS) – It is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort and convenience. LOS can be categorized as follows:

LOS A describes free flowing conditions.

LOS B also indicative of free flow conditions. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.

LOS C represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver with the traffic stream is now clearly affected by the present of other vehicles.

LOS D demonstrates a range in which the ability to maneuver is severely restricted because of the traffic congestion. Travel speed begins to be reduced as traffic volume increases.

LOS E reflects operations at or near capacity and is quite unstable. Because the limits of the level of service are approached, service disruptions cannot be damped or readily dissipated.

LOS F is a stop and go, low speed conditions with little or poor maneuverability. Speed and traffic flow may drop to zero and considerable delays occur. For intersections, LOS F describes operations with delay in excess of 60 seconds per vehicle.

Mainline – includes travel way for through traffic but not freeway to freeway interchanges, local road interchanges, ramps, or auxiliary lanes.

Peak Hour – The hour of the day in which the maximum volume occurs across a point on the highway.

Peak Hour Volume – The hourly volume during the highest hour traffic volume of the day traversing a point on a highway segment. It is generally between six percent and 10 percent of the Annual Daily Traffic (ADT). The lower values are generally found on roadways with low volumes.

Post Mile (PM) – A post mile is an identified point on the State Highway System. The milepost values increase from the beginning of a route within a county to the next county line. The milepost values start over again at each county line. Mile post values usually increase from south to north or west to east depending upon the general direction the route follows within the State. The milepost at a given location will remain the same year after year. When a section of road is relocated, new milepost (usually noted by an alphabetical prefix such as "R" or "M") are established for it.

Segment – A portion of a facility between two points.

Vehicle Miles Traveled (VMT) – Is the total number of miles traveled by motor vehicles on a road or highway segments.

RESOURCES

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