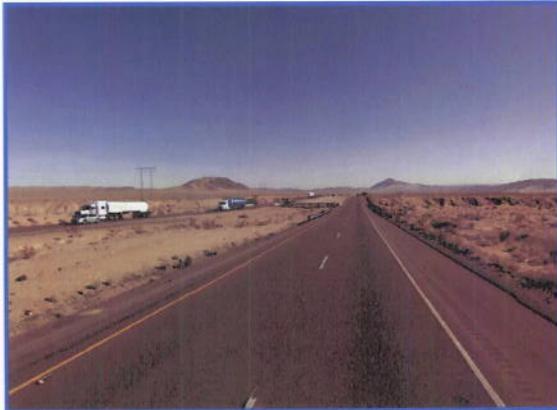




**TRANSPORTATION CONCEPT REPORT**  
**Interstate 15**  
**District 8**  
**September 2012**



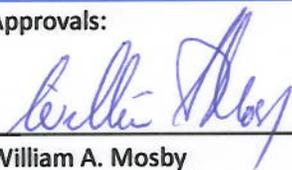
**Cajon Pass**



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 8 Freight and System Planning Branch 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.

**California Department of Transportation**  
**Caltrans Improves Mobility Across California**

Approvals:



William A. Mosby  
 Deputy District Director  
 Division of Planning

9/19/12  
 Date



Basem E. Muallem, P.E.  
 District Director

9/25/12  
 Date

# Table of Contents

About the Transportation Concept Report .....	1
Executive Summary .....	2
Corridor Overview .....	6
Route Segmentation .....	6
Route Description.....	8
Route Designation and Characteristics .....	8
Community Characteristics and Land Use .....	11
System Characteristics .....	11
Bicycle Facility .....	13
Pedestrian Facility .....	14
Transit Facility .....	15
Freight .....	16
Corridor Performance .....	18
Key Corridor Issues.....	19
Corridor Concept.....	20
Concept Rationale .....	20
Planned and Programmed Projects and Strategies .....	20
Projects and Strategies to Achieve Concept .....	22
Appendices.....	23
A: Glossary of Terms and Acronyms .....	23
B: Resources.....	28

## 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) (Gov. Code §65086) 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 primarily produces four products: the District System Management Plan (DSMP), the Transportation System Development Plan (TSDP), the Transportation Concept Report (TCR), and the Corridor System Management Plan (CSMP). The district-wide **DSMP** is a strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The **TSDP** is a list of planned and partially programmed transportation projects used to recommend projects for funding. The **TCR** evolves from the development of the DSMP and TSDP and is used to document the existing and future route conditions as well as future needs for each route on the SHS. Similar to the TCR, the **CSMP** is a more complex multi-jurisdictional planning document that identifies future needs within corridors experiencing or expected to experience high levels of congestion. The CSMP serves as a TCR for segments covered by the CSMP. These System Planning products are also intended as resources for stakeholders, the public, partners, and 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.

## EXECUTIVE SUMMARY: INTERSTATE 15

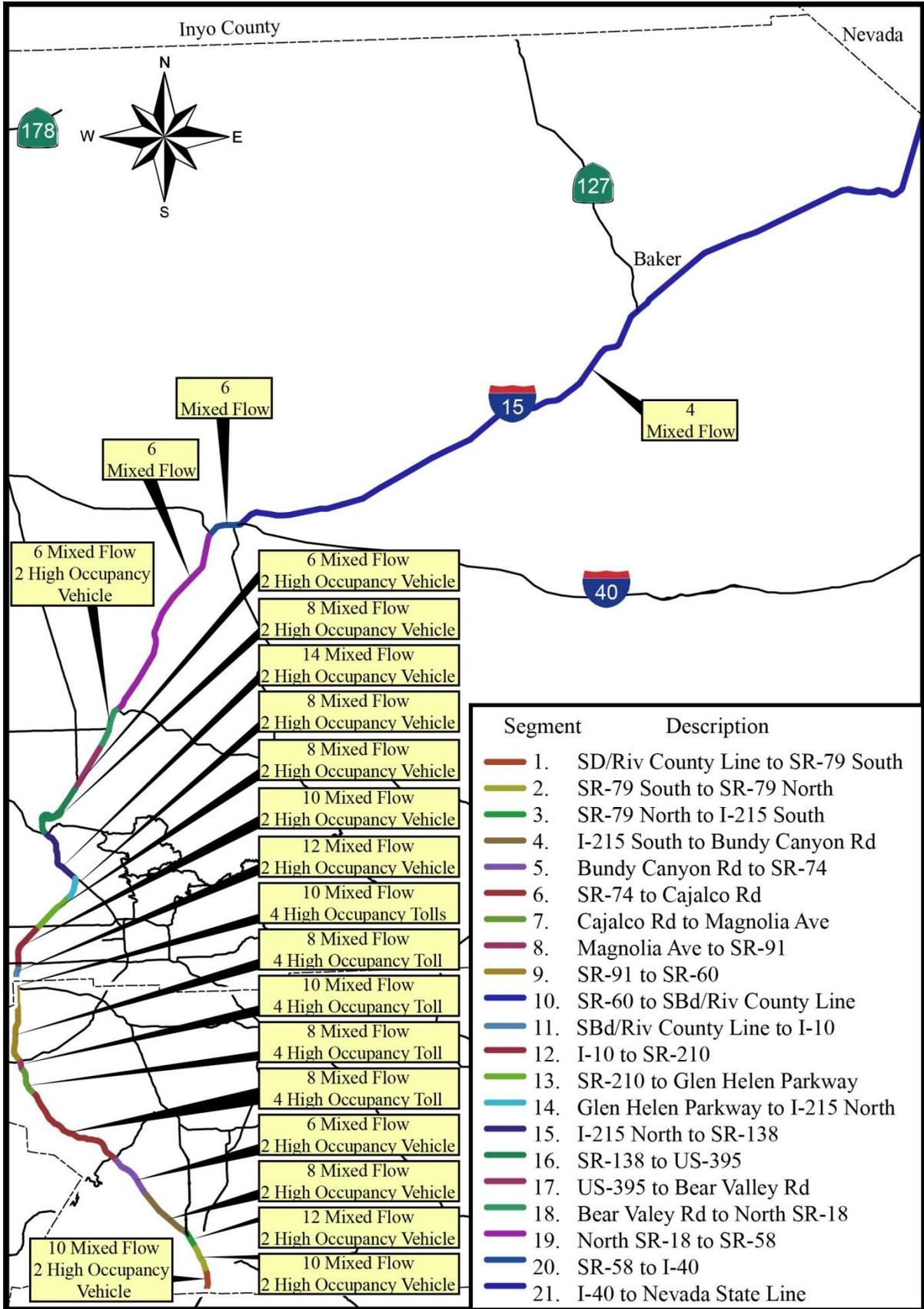
### Concept Summary Table

#### CONCEPT – 2035 Facility

Segment	ADT	Dir. Split	Peak Hour	Truck Peak Hour	No-Build		Planned SCAG RTP		LOS "D" Minimum Requirement	Concept
					V/C	LOS	V/C	LOS		
1	252,500	55%	20,980 (8.3%)	840 (4.0%)	8 MF		10 MF/2 HOV		14 MFE	10MF/ 2 ML
					V/C	LOS	V/C	LOS		
					1.40	F	0.97	E		
2	278,100	55%	22,530 (8.1%)	900 (4.0%)	8 MF		10 MF/2 HOV		14 MFE	10MF/ 2 ML
					V/C	LOS	V/C	LOS		
					1.50	F	1.05	F		
3	252,400	55%	20,440 (8.1%)	820 (4.0%)	8 MF		12 MF/2 HOV		14 MFE	12 MF/ 2 ML
					V/C	LOS	V/C	LOS		
					1.36	F	0.78	D		
4	181,100	52%	14,850 (8.2%)	740 (5.0%)	6 MF		8 MF/2 HOV		10 MFE	8 MF/ 2 ML
					V/C	LOS	V/C	LOS		
					1.21	F	0.72	C		
5	168,100	55%	12,780 (7.6%)	640 (5.0%)	6 MF		6 MF/2 HOV		8 MFE	6 MF/ 2 ML
					V/C	LOS	V/C	LOS		
					1.08	F	0.85	D		
6	176,800	55%	13,790 (7.8%)	800 (5.8%)	6 MF		8 MF/4 HOT		10 MFE	8 MF/ 4 ML
					V/C	LOS	V/C	LOS		
					1.25	F	0.69	C		
7	252,900	55%	19,470 (7.7%)	780 (4.0%)	6 MF		8 MF/4 HOT		12 MFE	8 MF/ 4 ML
					V/C	LOS	V/C	LOS		
					1.73	F	0.88	D		
8	273,800	55%	20,800 (7.6%)	620 (3.0%)	6 MF		8 MF/4 HOT		14 MFE	10MF/ 4 ML
					V/C	LOS	V/C	LOS		
					1.76	F	0.93	E		
9	204,900	53%	17,210 (8.4%)	690 (4.0%)	6 MF		8 MF/4 HOT		12 MFE	8 MF/ 4 ML
					V/C	LOS	V/C	LOS		
					1.42	F	0.76	D		
10	298,700	53%	22,100 (7.4%)	1,330 (6.0%)	6 MF		8 MF/4 HOT		14 MFE	10MF/ 4 ML
					V/C	LOS	V/C	LOS		
					1.83	F	0.98	E		
11	299,200	51%	22,740 (7.6%)	1,500 (6.6%)	8 MF		8 MF/2 HOV		14 MFE	12MF/ 2 ML
					V/C	LOS	V/C	LOS		
					1.36	F	1.17	F		
12	259,700	56%	20,000 (7.7%)	1,500 (7.5%)	8 MF		8 MF/2 HOV		12 MFE	10MF/ 2 ML
					V/C	LOS	V/C	LOS		
					1.31	F	1.12	F		

Segment	ADT	Dir. Split	Peak Hour	Truck Peak Hour	No-Build		Planned SCAG RTP		LOS "D" Minimum Requirement	Concept
					V/C	LOS	V/C	LOS		
13	221,600	58%	16,840 (7.6%)	1,520 (9.0%)	8 MF		8 MF/2 HOV		12 MFE	8 MF/ 2 ML
					V/C	LOS	V/C	LOS		
					1.16	F	0.97	E		
14	215,200	58%	16,360 (7.6%)	1,470 (9.0%)	6 MF		8 MF/2 HOV		12 MFE	8 MF/ 2 ML
					V/C	LOS	V/C	LOS		
					1.65	F	1.03	F		
15	292,000	60%	21,020 (7.2%)	1,890 (9.0%)	8 MF		8 MF/2 HOV		16 MFE	14MF/ 2 ML
					V/C	LOS	V/C	LOS		
					1.62	F	1.42	F		
16	244,700	60%	16,880 (6.9%)	1,520 (9.0%)	8 MF		8 MF/2 HOV		12 MFE	8 MF/ 2 ML
					V/C	LOS	V/C	LOS		
					1.32	F	1.11	F		
17	165,400	61%	11,740 (7.1%)	1,060 (9.0%)	6 MF		6 MF/2 HOV		8 MFE	6 MF/ 2 ML
					V/C	LOS	V/C	LOS		
					1.13	F	0.88	D		
18	131,400	61%	10,250 (7.8%)	920 (9.0%)	6 MF		6 MF/2 HOV		8 MFE	6 MF/ 2 ML
					V/C	LOS	V/C	LOS		
					0.99	E	0.77	D		
19	108,800	62%	9,470 (8.7%)	1,200 (12.7%)	6 MF		6 MF		8 MFE	6 MF
					V/C	LOS	V/C	LOS		
					1.07	F	1.07	F		
20	118,300	62%	10,890 (9.2%)	820 (7.5%)	7 MF <sup>1</sup>		6 MF		10 MFE	6 MF
					V/C	LOS	V/C	LOS		
					1.25	F	1.25	F		
21	69,200	68%	4,290 (6.2%)	470 (11.0%)	4 MF		4 MF		8 MFE	4 MF
					V/C	LOS	V/C	LOS		
					1.41	F	1.41	F		

<sup>1</sup> 3 NB lanes/4 SB lanes



## **Concept Rationale**

Interstate 15 (I-15) is a major interstate goods-movement commuter corridor, which links to the Los Angeles Metropolitan area. It is a primary link between major economic centers and geographic regions. Weekend and holiday recreational traffic volumes on the route are exceptionally high since it serves as a connection to the city of Las Vegas and to the Colorado River area via Interstate 40 (I-40). Traffic volume is forecasted to increase on I-15 in 2035 and will require additional lanes to achieve the acceptable concept level of service. A significant increase in freight traffic volume is also expected throughout the corridor. Several capacity improvements are planned, programmed, and recommended for this corridor.

## **Proposed Projects and Strategies**

There are several capacity increasing and mainline improvements planned or programmed for I-15 throughout the corridor in the 2012 RTP. The TCR also recommends five increasing and mainline improvements projects beyond the 2012 RTP projects to achieve the concept for I-15. It recommends Segments 8, 10, and 12 add two mixed-flow lanes; Segment 11 add four mixed-flow lanes; and Segment 15 add six mixed-flow lanes.

## CORRIDOR OVERVIEW

### ROUTE SEGMENTATION

Interstate 15			
Segment	County	Post Miles	Description
1	Riv	R0.0-3.4	San Diego-Riverside County line to SR-79 South
2	Riv	3.4-6.6	SR-79 South to SR-79 North
3	Riv	6.6-8.7	SR-79 North to I-215 South
4	Riv	8.7-16.3	I-215 South to Bundy Canyon Road
5	Riv	16.3-22.3	Bundy Canyon Road to SR-74
6	Riv	22.3-36.8	SR-74 to Cajalco Road
7	Riv	36.8-40.3	Cajalco Road to Magnolia Avenue
8	Riv	40.3-41.5	Magnolia Avenue to SR-91
9	Riv	41.5-51.5	SR-91 to SR-60
10	Riv	51.5-52.3	SR-60 to San Bernardino-Riverside County line
11	SBd	0.0-2.4	San Bernardino-Riverside County line to I-10
12	SBd	2.4-8.1	I-10 to SR-210
13	SBd	8.1-15.6	SR-210 to Glen Helen Parkway
14	SBd	15.6-16.3	Glen Helen Parkway to I-215 North
15	SBd	16.3-R21.4	I-215 North to SR-138
16	SBd	R21.4-31.8	SR-138 to US-395
17	SBd	31.8-37.5	US-395 to Bear Valley Road
18	SBd	37.5-43.4	Bear Valley Road to North Junction SR-18
19	SBd	43.4-70.1	North Junction SR-18 to SR-58
20	SBd	70.1-74.4	SR-58 to I-40
21	SBd	74.4-R186.2	I-40 to Nevada State line



**ROUTE DESCRIPTION**

Interstate Route 15 (I-15) begins at its junction with Interstate 5 (I-5) in San Diego County and ends at the United States/Canada International Border in the state of Montana. The District 8 portion of the route starts at the Riverside-San Diego County line and ends at the Nevada State line. The total length of I-15 in District 8 is 239 miles. The route varies from four to eight lanes in width.

For the purposes of this study, I-15 is divided into 21 segments. Segments 1 through 18 traverse urbanized areas surrounding the greater Los Angeles Metropolitan area. Segments 19 through 21 serve traffic traveling to the rural desert and mountain areas of San Bernardino County and other states. I-15 is a major interstate goods-movement commuter corridor, which links to the Los Angeles Metropolitan area. It is a primary link between major economic centers and geographic regions. Weekend and holiday recreational traffic volumes on the route are exceptionally high since it serves as a connection to the city of Las Vegas and to the Colorado River area via Interstate 40 (I-40).

**Route Designation and Characteristics**

Seg.	Freeway and Expressway System	National Highway System	Strategic Highway Network	Scenic Highway	Interregional Road System Route	High Emphasis Route	Focus Route	Federal Functional Classification	Goods Movement Route	Truck Designation	Rural/Urban/Urbanized	Metropolitan Planning Organization	Regional Transportation Planning Agency	Congestion Management Agency	Local Agencies	Tribes	Air District	Terrain
1	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	RCTC	Temecula, RCTC	Pechanga Band of Luiseno Mission Indians	South Coast AQMD	Rolling
2	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	RCTC	Temecula, RCTC	N/A	South Coast AQMD	Rolling
3	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	RCTC	Temecula, Murrieta, RCTC	N/A	South Coast AQMD	Rolling
4	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	RCTC	Murrieta, Wildomar, RCTC	N/A	South Coast AQMD	Level
5	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	RCTC	Wildomar, Lake Elsinore, RCTC	N/A	South Coast AQMD	Level
6	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	RCTC	Corona, Lake Elsinore, Riv Co., RCTC	N/A	South Coast AQMD	Rolling
7	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	RCTC	Corona, Riv Co., RCTC	N/A	South Coast AQMD	Rolling
8	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	RCTC	Corona, RCTC	N/A	South Coast AQMD	Level

Seg.	Freeway and Expressway System	National Highway System	Strategic Highway Network	Scenic Highway	Interregional Road System Route	High Emphasis Route	Focus Route	Federal Functional Classification	Goods Movement Route	Truck Designation	Rural/Urban/Urbanized	Metropolitan Planning Organization	Regional Transportation Planning Agency	Congestion Management Agency	Local Agencies	Tribes	Air District	Terrain
9	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	RCTC	Corona, Eastvale, Norco, Jurupa Valley, RCTC	N/A	South Coast AQMD	Level
10	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	RCTC	Eastvale, Jurupa Valley, Ontario, SANBAG RCTC	N/A	South Coast AQMD	Level
11	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	SANBAG	Eastvale, Jurupa Valley, Ontario, SANBAG RCTC	N/A	South Coast AQMD	Level
12	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	SANBAG	Ontario, Rancho Cucamonga, Fontana, SANBAG	N/A	South Coast AQMD	Level
13	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	SANBAG	Rancho Cucamonga, Fontana, SBd Co., SANBAG	N/A	South Coast AQMD	Level
14	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	SANBAG	SBd Co., SANBAG	N/A	South Coast AQMD	Rolling
15	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	SANBAG	SBd Co., SANBAG	N/A	South Coast AQMD	Rolling
16	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	SANBAG	Hesperia, SBd Co., SANBAG	N/A	Mojave Desert AQMD	Rolling
17	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	SANBAG	Hesperia, Victorville, SANBAG	N/A	Mojave Desert AQMD	Level
18	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	SANBAG	Hesperia, Victorville, SANBAG	N/A	Mojave Desert AQMD	Level
19	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	SANBAG	Victorville, Apple Valley, Barstow, SBd Co., SANBAG	N/A	Mojave Desert AQMD	Level
20	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	SANBAG	Barstow, SBd Co., SANBAG	N/A	Mojave Desert AQMD	Rolling
21	Yes	Yes	Yes	No	Yes	Yes	No	Interstate	Yes	National Network	Urbanized	SCAG	SCAG	SANBAG	Barstow, SBd Co., SANBAG	N/A	Mojave Desert AQMD	Rolling

## **COMMUNITY CHARACTERISTICS AND LAND USE**

Segments 1 and 2 traverses developed area of the city of Temecula with residential and commercial-retail land uses. Segment 3 traverses developed area of the cities of Temecula and Murrieta with commercial and residential land uses. Segments 4 and 5 traverses developed area of the cities of Murrieta, Wildomar, and Lake Elsinore with commercial and residential land uses. Segment 6 traverses developed area of the city of Lake Elsinore and undeveloped part of Riverside County with specific plan as the majority land use designation. Segment 7 traverses developed area of the city of Corona and a small portion of Riverside County with commercial and industrial land uses. Segments 8, 9 and 10 traverses developed area of the cities of Corona, Norco, Eastvale, and Jurupa Valley with residential, commercial, and industrial land uses. Segments 11 and 12 traverses developed area of the cities of Ontario, Rancho Cucamonga, and Fontana with residential, commercial, and industrial land uses. Segment 13 traverses developed area the cities of Rancho Cucamonga, Fontana, and rural area of San Bernardino County with residential and commercial land uses. Segments 14, 15, and 16 traverses through undeveloped and rural area of San Bernardino County and a small portion of the city of Hesperia with resource conservation as the majority land use designation and commercial land use located in Hesperia. Segments 17 and 18 traverse the developed areas of the Hesperia and Victorville with commercial as the majority land use. Segment 19 traverses developed area of the city of Victorville, rural area of the Town of Apple Valley, rural area of the city of Barstow, and San Bernardino County with commercial and specific plan land uses within Victorville, Apple Valley, and Barstow; land use designation within the county of San Bernardino is resource conservation. Segment 20 bisects developed area of the city of Barstow with commercial and residential land uses. Fort Irwin, an Army training base is located immediately north of Barstow and the U.S. Marine Corp Depot of Supplies Yermo Annex is located to the east. Segment 21 traverses rural and undeveloped area of the city of Barstow and San Bernardino County with rural residential and resource conservation land uses.

## **SYSTEM CHARACTERISTICS**

<b>Existing Facility</b>					
<b>Segment</b>	<b>Facility Type</b>	<b>Mixed-Flow Lanes</b>	<b>Managed Lanes</b>	<b>Centerline Miles</b>	<b>Lane Miles</b>
1	Freeway	8	0	3.4	27.2
2	Freeway	8	0	3.2	25.6
3	Freeway	8	0	2.1	16.8
4	Freeway	6	0	7.6	45.6
5	Freeway	6	0	6.0	36.0
6	Freeway	6	0	14.5	87.0
7	Freeway	6	0	3.5	21.0
8	Freeway	6	0	1.2	7.2
9	Freeway	6	0	10.0	60.0
10	Freeway	6	0	0.8	4.8
11	Freeway	8	0	2.4	19.2
12	Freeway	8	0	5.7	45.6
13	Freeway	8	0	7.5	60.0
14	Freeway	6	0	1.9	17.1
15	Freeway	8	0	7.7	61.6
16	Freeway	8	0	10.4	83.2
17	Freeway	6	0	5.7	34.2

Existing Facility					
Segment	Facility Type	Mixed-Flow Lanes	Managed Lanes	Centerline Miles	Lane Miles
18	Freeway	6	0	5.9	35.4
19	Freeway	6	0	26.7	160.2
20	Freeway	7 <sup>2</sup>	0	4.3	30.1
21	Freeway	4	0	111.8	447.2

Concept Facility					
Segment	Facility Type	Mixed-Flow Lanes	Managed Lanes	Centerline Miles	Lane Miles
1	Freeway	10	2	3.4	40.8
2	Freeway	10	2	3.2	38.4
3	Freeway	12	2	2.1	29.4
4	Freeway	8	2	7.6	76.0
5	Freeway	6	2	6.0	48.0
6	Freeway	8	4	14.5	174.0
7	Freeway	8	4	3.5	42.0
8	Freeway	10	4	1.2	16.8
9	Freeway	8	4	10.0	120.0
10	Freeway	10	4	0.8	11.2
11	Freeway	12	2	2.4	33.6
12	Freeway	10	2	5.7	68.4
13	Freeway	8	2	7.5	75.0
14	Freeway	8	2	1.9	19.0
15	Freeway	14	2	7.7	123.2
16	Freeway	8	2	10.4	104.0
17	Freeway	6	2	5.7	45.6
18	Freeway	6	2	5.9	47.2
19	Freeway	6	0	26.7	160.2
20	Freeway	6	0	4.3	25.8
21	Freeway	4	0	111.8	447.2

TMS Elements				
Segment	Signalized Intersection 2008	Signalized Intersection 2035	Ramp Meters 2008	Ramp Meters 2035
1	0	0	0	1
2	0	0	0	4
3	0	0	0	2
4	0	0	0	9
5	0	0	0	6
6	0	0	0	11
7	0	0	3	7
8	0	0	1	1
9	0	0	11	11
10	0	0	0	0
11	0	0	2	3
12	0	0	5	6

<sup>2</sup> 3 NB lanes/4 SB lanes

TMS Elements				
Segment	Signalized Intersection 2008	Signalized Intersection 2035	Ramp Meters 2008	Ramp Meters 2035
13	0	0	2	7
14	0	0	0	0
15	0	0	0	0
16	0	0	0	1
17	0	0	0	4
18	0	0	11	11
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0

## **BICYCLE FACILITY**

Freeway shoulders are open to bicycles where there are no parallel routes along the segments.

Bicycle Facility Table		
Segment	Bicycle Access Prohibited	Facility Description
1	Yes	Bicycles are not permitted on this segment. Rainbow Valley Blvd. and Rainbow Canyon Road can be used as an alternate bicycle route.
2	Yes	Bicycles are not permitted on this segment. Old Town Front Street, Diaz Road, and Ynez Road can be used as an alternate bicycle route.
3	Yes	Bicycles are not permitted on this segment. Jefferson Ave. or Margarita Rd. via Winchester Rd. can be used as an alternate bicycle route.
4	Yes	Bicycles are not permitted on this segment. Jefferson Ave., Palomar St., and Mission Trail can be used as an alternate route.
5	Yes	Bicycles are not permitted on this segment. Mission Trail, Lakeshore Dr., Main St., and Collier Ave. can be used as an alternate route.
6	Yes	Bicycles are not permitted on this segment. Lakeshore Dr., Lake St., or Temescal Canyon Rd. can be used as an alternate route.
7	Yes	Bicycles are not permitted on this segment. Temescal Canyon Rd. and Ontario Ave. can be used as an alternate route.
8	Yes	Bicycles are not permitted on this segment. Promenade Ave. and Main St. can be used as an alternate route.
9	Yes	Bicycles are not permitted on this segment. Main St./Hamner Ave. can be used as an alternate route.
10	Yes	Bicycles are not permitted on this segment. Milliken Ave. and Etiwanda Ave. can be used as an alternate route.
11	Yes	Bicycles are not permitted on this segment. Milliken Ave. and Etiwanda Ave. can be used as an alternate route.
12	Yes	Bicycles are not permitted on this segment. Milliken Ave., Cherry Ave. and Etiwanda Ave. can be used as an alternate route.
13	Yes	Bicycles are not permitted on this segment. Cherry Ave., Coyote Canyon Rd., Lytle Creek Rd. can be used as an alternate route.
14	Yes	Bicycles are not permitted on this segment. Glen Helen Parkway can be used as an alternate route.

<b>Bicycle Facility Table</b>		
<b>Segment</b>	<b>Bicycle Access Prohibited</b>	<b>Facility Description</b>
15	Yes/No	Bicycles are not permitted on this segment between I-215 North and Cleghorn Rd. Devore rd., Kenwood Ave. and Cajon Blvd. can be used as an alternate route. There is no parallel route between Cleghorn Rd. and SR-138; freeway shoulders are open to bicycles. The topography is rolling.
16	Yes/No	Freeway shoulders are open for bicycles on this segment between Cleghorn Rd. and Oak Hill Rd.; however bicycles are not permitted thereafter. The topography is rolling. Mariposa Rd. can be used as an alternate route from Oak Hill Rd. and US-395.
17	Yes	Bicycles are not permitted on this segment. Mariposa Rd. and Amargosa Rd. can be used as an alternate route.
18	Yes	Bicycles are not permitted on this segment. Mariposa Rd., Amargosa Rd. and 7 <sup>th</sup> St. can be used as an alternate route.
19	Yes	Bicycles are not permitted on this segment. National Trails Highway can be used as an alternate route.
20	Yes	Bicycles are not permitted on this segment. Main St. can be used as an alternate route.
21	Yes/No	Bicycles are not permitted on this segment between I-40 and Old Highway 58 IC, Fort Irwin Rd. and Ghost Town Rd., and West Baker Blvd. junction and East Baker Blvd. junction. There are no parallel routes between Old Highway 58 and Fort Irwin Rd, Ghost Town Rd. and West Baker Blvd. junction, and East Baker Blvd. junction and Nevada Stateline; freeway shoulders are open to bicycles. The topography is rolling.

## **PEDESTRIAN FACILITY**

Freeway shoulders are open to pedestrian where there are no parallel routes along the segments.

<b>Pedestrian Facility Table</b>		
<b>Segment</b>	<b>Pedestrian Access Prohibited</b>	<b>Facility Description</b>
1	Yes	Pedestrians are not permitted on the freeway
2	Yes	Pedestrians are not permitted on the freeway
3	Yes	Pedestrians are not permitted on the freeway
4	Yes	Pedestrians are not permitted on the freeway
5	Yes	Pedestrians are not permitted on the freeway
6	Yes	Pedestrians are not permitted on the freeway
7	Yes	Pedestrians are not permitted on the freeway
8	Yes	Pedestrians are not permitted on the freeway
9	Yes	Pedestrians are not permitted on the freeway
10	Yes	Pedestrians are not permitted on the freeway
11	Yes	Pedestrians are not permitted on the freeway
12	Yes	Pedestrians are not permitted on the freeway
13	Yes	Pedestrians are not permitted on the freeway
14	Yes	Pedestrians are not permitted on the freeway
15	Yes/No	Freeway shoulders are open to pedestrians between Cleghorn Rd. (PM R20.0) and SR-138 (PM R21.4)

Pedestrian Facility Table		
Segment	Pedestrian Access Prohibited	Facility Description
16	Yes/No	Freeway shoulders are open to pedestrians between SR-138 (PM R21.4) and Oak Hill Rd. (PM R28.6).
17	Yes	Pedestrians are not permitted on the freeway
18	Yes	Pedestrians are not permitted on the freeway
19	Yes	Pedestrians are not permitted on the freeway
20	Yes	Pedestrians are not permitted on the freeway
21	Yes/No	Freeway shoulders are open to pedestrians between Old Highway 58 (PM 76.9) and Fort Irwin Rd. (PM 79.6), Ghost Town Rd. (PM R81.8) and West Baker Blvd. junction (PMR135.8) , and East Baker Blvd. junction (PM R138.5) and Nevada State line (PM 186.2)

## TRANSIT FACILITY

The XpressWest is a proposed high speed rail line connecting Las Vegas, Nevada and Victorville, California. The project is scheduled to be completed in 2016.

Transit Facility Table			
Segment	Mode & Collateral Facility	Name	Route End Points
1	Bus	Riverside Transit Agency	Temecula
	Park and Ride	Hope Lutheran Church	Temecula
2	Bus	Riverside Transit Agency	Temecula
	Park and Ride	Hope Lutheran Church	Temecula
	Park and Ride	Temecula-Winchester	Temecula
3	Bus	Riverside Transit Agency	Murrieta/Temecula
4	Bus	Riverside Transit Agency	Murrieta/Riv Co.
5	Bus	Riverside Transit Agency	Riv Co./Lake Elsinore
	Park and Ride	Lake Elsinore-Dexter	Lake Elsinore
6	Bus	Riverside Transit Agency	Riv Co./Lake Elsinore
	Park and Ride	Lake Elsinore-Dexter	Lake Elsinore
	Park and Ride	Lake Elsinore Outlets	Lake Elsinore
7	Bus	Riverside Transit Agency	Riv Co./Corona
	Park and Ride	Canyon Community Church of the Nazarene	Corona
8	Bus	Riverside Transit Agency	Corona
9	Bus	Riverside Transit Agency	Corona/Norco/Eastvale/Jurupa Valley
	Park and Ride	Norco-Old Hamner	Norco
	Park and Ride	Mira Loma-Limonite	Jurupa Valley
10	Bus	Riverside Transit Agency	Eastvale/Riv Co./Ontario
	Rail	Metrolink	East Ontario Metrolink Station
11	Bus	Riverside Transit Agency	Eastvale/Riv Co./Ontario
	Bus	Omnitrans	Ontario
	Rail	Metrolink	East Ontario Metrolink Station

Transit Facility Table			
Segment	Mode & Collateral Facility	Name	Route End Points
12	Bus	Omnitrans	Ontario/Rancho Cucamonga
	Rail	Metrolink	Rancho Cucamonga Metrolink Station
	Park and Ride	Rancho Cucamonga	Rancho Cucamonga
	Park and Ride	Victoria-TMC	Fontana
13	Bus	Omnitrans	Fontana/Rialto
14	N/A	N/A	N/A
15	N/A	N/A	N/A
16	Bus	Victor Valley Transit Authority	Hesperia
	Park and Ride	Hesperia	Hesperia
17	Bus	Victor Valley Transit Authority	Hesperia/Victorville
	Park and Ride	Bear Valley	Victorville
18	Bus	Victor Valley Transit Authority	Apple Valley/Victorville/Barstow
	Interregional Bus	Victorville Greyhound Station	Victorville
	Park and Ride	Victor Valley Transportation Center	Victorville
19	Bus	Victor Valley Transportation Authority	Apple Valley/Victorville/Barstow
19	Interregional Bus	Victorville Greyhound Station	Victorville
	Park and Ride	Victor Valley Transportation Center	Victorville
20	Bus	Victor Valley Transit Authority	Apple Valley/Victorville/Barstow
	Interregional Bus	Barstow Greyhound Station	Barstow
	Park and Ride	"L" Street	Barstow
21	Interregional Bus	Barstow Greyhound Station	Barstow

## **FREIGHT**

As one of the District's goods movement routes, I-15 is impacted by regional and through freight traffic associated with the Ports of Los Angeles and Long Beach to the west, as well as the Mexico/United States border region to the south. It is also impacted by Ontario International Airport and regional and local distribution centers and warehouses located in close proximity I-15. Travel centers are located along I-15 from the city of Ontario to the community of Baker. These travel centers are design to fit the needs of all travelers from fuel to restaurants and overnight parking. The table below list all known locations of such facilities.

Freight Facility Table			
Facility Type/Freight Generator	Location	Mode	Name
Airport	Ontario	Airplane	Ontario International Airport
Airport	Victorville	Airplane	Southern California Logistics Airport

Freight Facility Table			
Facility Type/Freight Generator	Location	Mode	Name
Distribution Centers	Eastvale, Jurupa Valley	Trucks	Active Ride Shop Headquarters, Ids USA, Grainger Industrial Supply, Ingram Micro, Ferguson Enterprises, Stanley Black & Decker, Meiko Warehousing, ProLogics, J.W. Mitchell
Distribution Centers	Ontario	Trucks	AutoZone, Hamilton Fixture, FedEx, Cardinal Health, Swift Transport, Test Rite Products Corporation, Covidien, K- Mart, CVS Caremark, Niagara Water, New Balance, Oakley Ontario, Big Lots, Sport Authority,
Travel Center	Ontario	Trucks	TA Travel Center, Travel Centers of America
Travel Center	Hesperia	Trucks	Pilot Travel Centers
Travel Center	Barstow	Trucks	TA Travel Centers
Class I Rail Lines	Devore, Cajon Pass	Rail	Union Pacific, Burlington North Santa Fe
Class I Rail Lines	Parallel to I-15 between the communities of Yermo and Midway	Rail	Union Pacific

## CORRIDOR PERFORMANCE<sup>3</sup>

Basic System Operations							
Segment	AADT 2008	AADT 2035	LOS 2008	LOS 2035	LOS Concept	VMT 2008	VMT 2035
1	129,000	252,500	C	E	D	438,600	858,500
2	155,700	278,100	D	F	D	498,240	918,720
3	186,000	252,400	E	D	D	390,600	530,040
4	121,800	181,100	D	C	D	925,680	1,376,360
5	117,000	168,100	D	D	D	702,000	1,008,600
6	119,200	176,800	D	C	D	1,728,400	2,563,600
7	158,600	252,900	E	D	D	555,100	885,150
8	174,000	273,800	F	E	D	208,800	328,560
9	149,800	204,900	E	D	D	1,498,000	2,049,000
10	214,000	298,700	F	E	D	171,200	238,960
11	214,000	299,200	F	F	D	513,600	718,080
12	172,700	259,700	E	F	D	984,390	1,480,290
13	136,400	221,600	D	E	D	1,023,000	1,662,000
14	133,000	215,200	F	F	D	252,700	408,880
15	154,200	292,000	E	F	D	1,187,340	2,248,400
16	131,600	244,700	C	F	D	1,368,640	2,544,880
17	101,800	165,400	C	D	D	580,260	942,780
18	84,800	131,400	D	D	D	500,320	775,260
19	54,500	108,000	C	F	D	1,455,150	2,883,600
20	68,300	118,300	D	F	D	293,690	508,690
21	37,100	69,200	D	F	D	4,147,780	7,736,560

Truck Traffic				
Segment	Total Average Annual Daily Truck Traffic (AADT) 2008	Total Trucks (% of AADT) 2008	5+ Axle Average Annual Daily Truck Traffic (AADTT) 2008	5+ Axle Trucks (% of AADTT) 2008
1	9,030	7.0%	4,573	51%
2	10,899	7.0%	5,554	51%
3	13,020	6.0%	5,488	49%
4	8,526	9.0%	4,397	40%
5	8,190	9.0%	4,429	42%
6	8,344	11.0%	4,812	37%
7	11,102	6.0%	4,350	46%
8	12,180	11.0%	4,350	23%
9	10,486	11.0%	6,015	37%
10	14,980	8.0%	7,840	46%
11	14,980	8.0%	12,556	73%
12	12,089	10.0%	11,514	67%
13	9,548	15.0%	9,171	45%
14	9,310	15.0%	9,171	46%
15	10,794	14.0%	13,379	62%
16	9,212	15.0%	11,343	57%
17	7,126	22.0%	10,671	48%

<sup>3</sup> Corridor Performance table is based on 2008 Caltrans traffic data and SCAG Model 2035.

Truck Traffic				
Segment	Total Average Annual Daily Truck Traffic (AADT) 2008	Total Trucks (% of AADT) 2008	5+ Axle Average Annual Daily Truck Traffic (AADTT) 2008	5+ Axle Trucks (% of AADTT) 2008
18	5,936	22.0%	10,054	54%
19	3,815	22.0%	9,252	77%
20	4,781	18.0%	8,514	69%
21	2,597	20.0%	4,955	67%

Peak Period Traffic Data				
Segment	Peak Direction	Time of Day	VMT 2008	VMT 2035
1	Northbound	6am-9am/3am-7pm	37,060	71,638
2	Northbound	6am-9am/3am-7pm	38,442	72,218
3	Northbound	6am-9am/3am-7pm	30,030	42,819
4	Northbound	6am-9am/3am-7pm	74,959	113,263
5	Northbound	6am-9am/3am-7pm	53,418	76,962
6	Northbound	6am-9am/3am-7pm	126,295	199,129
7	Northbound	6am-9am/3am-7pm	38,899	68,023
8	Northbound	6am-9am/3am-7pm	14,640	24,960
9	Southbound	6am-9am/3am-7pm	109,920	173,150
10	Southbound	6am-9am/3am-7pm	12,000	17,728
11	Northbound	6am-9am/3am-7pm	36,000	54,324
12	Northbound	6am-9am/3am-7pm	73,730	114,057
13	Northbound	6am-9am/3am-7pm	75,270	126,090
14	Northbound	6am-9am/3am-7pm	18,620	31,179
15	Southbound	6am-9am/3am-7pm	87,149	160,784
16	Southbound	6am-9am/3am-7pm	93,142	176,176
17	Southbound	6am-9am/3am-7pm	42,402	66,719
18	Southbound	6am-9am/3am-7pm	41,188	60,440
19	Southbound	6am-9am/3am-7pm	150,374	253,089
20	Southbound	6am-9am/3am-7pm	31,446	46,904
21	Southbound	6am-9am/3am-7pm	566,826	869,804

## KEY CORRIDOR ISSUES

Serving as one of the primary goods movement routes in the district, I-15 is impacted by regional and through freight traffic associated with the Ports of Los Angeles and Long Beach. I-15 is also a major north-south transportation corridor with a high percentage of truck traffic transporting goods in and out of the state. I-15 stretches from the Mexican border to the Canadian border passing through the states California, Nevada, Arizona, Utah, Idaho, and Montana. Weekend and holiday recreational traffic volumes on the route are exceptionally high since it serves as a connection to the city of Las Vegas, Nevada and the Colorado River area via I-40.

# CORRIDOR CONCEPT

## CONCEPT RATIONALE

Traffic volume is forecasted to increase on I-15 and will require additional lanes beyond those planned and programmed in the 2012 RTP to maintain an acceptable level of service through 2035. A significant increase in freight traffic volume is also expected throughout the corridor. Several capacity improvements are planned, programmed, and recommended for this corridor

## PLANNED AND PROGRAMMED PROJECTS AND STRATEGIES

Segment	County	Post Miles	Location	Lead Agency	Project
<b>2012 Regional Transportation Improvement Program (RTIP) Projects</b>					
1, 2	Riv	0.0-2.0	Temecula	Riv Co.	Construct new eastern bypass
	Riv	0.0-6.6	Temecula	Riv Co.	Add 1 HOV/1 MF in each direction from SD/Riv Co Line to Winchester Rd. (Segments 1-2); Add 1 HOV/2 MF in each direction from Winchester Rd. to I-215 South (Segment 3)
	Riv	3.0-4.0	Temecula	Temecula	Improve Temecula Pkwy IC/add auxiliary lanes
2, 3, 4	Riv	5.5-9.6	Temecula	Temecula	New IC at French Valley Parkway
3	Riv	6.6-7.7	Temecula	Temecula	New IC at French Valley Parkway
4, 5, 6, 7, 8, 9, 10	Riv	8.7-52.3	Temecula, Murrieta, Lake Elsinore, Corona, Norco	RCTC	2 HOT lanes each dir. from SBd Co. Line to SR-74/1 MF lane each dir. from SBd Co. Line to SR-74/1 HOV lane each dir. from SR-74 to I-15/215
4	Riv	9.5	Murrieta	Murrieta	Improve Murrieta Hot Springs Rd. IC
	Riv	10.3-10.9	Murrieta	Murrieta	Improve California Oaks Rd. IC
	Riv	13.0-14.3	Murrieta	Riv Co.	Improve Clinton Keith Rd. IC
5	Riv	16.5-21.0	Lake Elsinore	Lake Elsinore	New Franklin Street IC/auxiliary lanes
	Riv	18.3-21.0	Lake Elsinore	Lake Elsinore	Improve IC/auxiliary lanes
6	Riv	35.2-36.1	Corona	Corona	Improve Weirick Rd. IC
6, 7	Riv	36.1-37.6	Corona	RCTC	Improve Cajalco Rd. IC/auxiliary lanes
7	Riv	37.8-38.0	Corona	Corona	Improve El Centro Rd. IC
	Riv	38.6	Corona	Corona	Widen Ontario Ave. IC
9	Riv	46.0-47.5	Norco	Riv Co.	New Schleisman Rd. IC/auxiliary lanes
	Riv	47.8-49.1	Eastvale	Riv Co.	Improve Limonite Ave. IC
12	SBd	4.1-5.8	Rancho Cucamonga	Rancho Cucamonga	Improve IC/auxiliary lanes
	SBd	5.0-5.3	Rancho Cucamonga	Caltrans	Widen NB Foothill Blvd. off ramp
	SBd	5.0-5.8	Rancho Cucamonga	Rancho Cucamonga	Widen SB Foothill Blvd. off ramp

Segment	County	Post Miles	Location	Lead Agency	Project
	SBd	6.3-7.1	Rancho Cucamonga	Rancho Cucamonga	Improve Baseline IC
	SBd	6.4-7.2	Rancho Cucamonga	Rancho Cucamonga	Widen ramps at Baseline/install traffic meters
13	SBd	9.8-11.9	Fontana	Caltrans	Convert Duncan Canyon Rd. OC to diamond IC
	SBd	12.5-13.5	Fontana	Fontana	Improve Sierra Ave. IC
13, 14	SBd	14.0-16.4	Devore	Caltrans	1 MF lane from Glen Helen Pkwy. to I-15/215 IC/I-15 truck bypass/ aux. lanes/improve Kenwood IC
15, 16	SBd	21.3-28.6	Cajon Pass	Caltrans	Add NB truck climbing lane
16	SBd	29.5-30.9	Hesperia	Hesperia	Construct Rancho Rd. IC
17	SBd	32.3	Hesperia	Hesperia	Construct Joshua St. NB off ramp
	SBd	32.9-33.5	Hesperia	Hesperia	Construct Muscatel St. IC/auxiliary lanes
	SBd	33.5-34.5	Hesperia	Hesperia	Improve Main St. IC
	SBd	34.9-35.9	Hesperia	Hesperia	Construct Eucalyptus St. IC
18	SBd	38.3-39.4	Victorville	Victorville	Construct La Mesa/Nisqualli Rd. IC
	SBd	40.5	Victorville	Victorville	Improve SR-18 IC
	SBd	41.0-43.0	Victorville	Victorville	Widen bridges and ramps at Mojave St.
18, 19	SBd	41.9-46.0	Victorville	Caltrans	Improve D and E St. IC, relocate Stoddard Wells Rd. IC
19	SBd	44.0	Victorville	Victorville/ Apple Valley	Construct IC via High Desert Corridor
19, 20	SBd	69.2-74.1	Barstow	Caltrans	Widen from 2 to 3 lanes in each directions
<b>2012 Financially Constrained Regional Transportation Plan (RTP) Projects</b>					
2	Riv	3.4-6.6	Temecula	Riv Co.	Add Auxiliary lanes in both directions
	Riv	4.5-5.5	Temecula	Riv Co.	Improve Rancho California Rd. IC
4	Riv	8.7-16.3	Temecula	RCTC	Ad 1 MF lane in each direction
4, 5	Riv	15.8-16.8	Lake Elsinore	Lake Elsinore	Improve Bundy Canyon RD. IC
5	Riv	16.9	Lake Elsinore	Lake Elsinore	Widen Lemon St. UC
	Riv	17.0-18.0	Lake Elsinore	Lake Elsinore	New IC and ramps
	Riv	18.4	Lake Elsinore	Lake Elsinore	New 4-lane Malaga Rd. OC
	Riv	19.8	Lake Elsinore	Lake Elsinore	New Franklin St. IC and ramps
	Riv	20.8-23.7	Lake Elsinore	N/A	Improves Central Ave. IC and ramps
	Riv	21.5	Lake Elsinore	Lake Elsinore	Arterial connections
6	Riv	22.8	Lake Elsinore	Lake Elsinore	New 4-lane Riverside Dr. OC
	Riv	23.4-24.4	Lake Elsinore	Lake Elsinore	Improve Nichols Rd. IC
	Riv	26.7	Lake Elsinore	Lake Elsinore	Improve Lake St. IC

Segment	County	Post Miles	Location	Lead Agency	Project
	Riv	28.4-29.4	Riv Co.	Riv Co.	Improve Horse Thief Canyon Rd. IC
	Riv	32.6-33.6	Riv Co.	Riv Co.	Improve Temescal Canyon IC
9	Riv	42.4-43.4	Norco	Norco	Improve Hidden Valley Pkwy. IC
	Riv	43.1-44.1	Norco	Norco	Improve Second St. IC
	Riv	45.1-46.1	Norco	Norco	Improve Sixth St. IC
	Riv	49.4	Eastvale	Caltrans	Add signals and ramps at Bellegrave Ave.
10	Riv	51.5-52.3	Eastvale	Caltrans	Add and extend auxiliary lanes
11, 12, 13, 14	SBd	0.0-16.0	Ontario, Rancho Cucamonga, Devore	Caltrans	Add 1 HOV lane in each directions
12	SBd	5.1-5.8	Rancho Cucamonga	Caltrans	Widen NB Foothill Blvd. onramp/install traffic metering
14, 15, 16	SBd	15.9-27.0	Devore, Cajon Pass	Caltrans	Add truck climbing lane
	SBd	16.0-21.7	Cajon Pass	Caltrans	Improve SR-138 (Cajon Junction) IC
14, 15, 16, 17	SBd	16.0-33.2	Cajon Pass/ Hesperia	Caltrans	Add 1 HOV lane in each directions
16	SBd	28.4-29.8	Cajon Pass	SBd Co.	Replace Oak Hill Rd. IC
16, 17, 18	SBd	31.0-40.6	Victorville	Caltrans	Add 1 HOV lane in each directions
<b>Strategic Plan Projects (Unconstrained)</b>					
No projects are planned					

## **PROJECTS AND STRATEGIES TO ACHIEVE CONCEPT**

SEGMENT	LOCATION	DESCRIPTION
1	R0.0-3.4	N/A
2	3.4-6.6	N/A
3	6.6-8.7	N/A
4	8.7-16.3	N/A
5	16.3-22.3	N/A
6	22.3-36.8	N/A
7	36.8-40.3	N/A
8	40.3-41.5	Add 1 mixed-flow lane in each direction
9	41.5-51.5	N/A
10	51.5-52.3	Add 1 mixed-flow lane in each direction
11	0.0-2.4	Add 2 mixed-flow lanes in each direction
12	2.4-8.1	Add 1 mixed-flow lane in each direction
13	8.1-15.6	N/A
14	15.6-16.3	N/A
15	16.3-R21.4	Add 3 mixed-flow lanes in each direction
16	R21.4-31.8	N/A
17	31.8-37.5	N/A
18	37.5-43.4	N/A
19	43.4-70.1	N/A
20	70.1-74.4	N/A
21	74.4-R186.2	N/A

## **Appendix A**

### **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
- CMA** – Congestion Management Plan
- CSS** – Context Sensitive Solutions
- FHWA** – Federal Highway Administration
- GHG** – Green House Gas
- HCP** – Habitat Conservation Plan
- HCS** – Highway Capacity Software
- 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 Lane Equivalent
- ML** – Managed Lane
- MPO** – Metropolitan Planning Organizations
- NOA** – Naturally Occurring Asbestos
- NCCP** – Natural Community Conservation Plan
- OC** – Overcrossing
- PID** – Project Initiation Document
- PM** – Post Mile
- PSR** – Project Study Report
- RCTC** – Riverside County Transportation Commission
- Riv** – Riverside County
- RTP** – Regional Transportation Plan
- RTIP** – Regional Transportation Improvement Program
- RTPA** – Regional Transportation Planning Agency
- SANBAG** – San Bernardino Associated Governments
- SBd** – San Bernardino County
- SCAG** – Southern California Association of Governments
- SCS** – Sustainable Community Strategies
- SHOPP** – State Highway Operation Protection Program
- STIP** – State Transportation Improvement Program
- T** – Truck Lane
- TDM** – Transportation Demand Management
- TMS** – Transportation Management System
- TSN** – Transportation System Network
- UC** – Undercrossing
- V/C** – Volume to Capacity Ratio
- VMT** – Vehicle Miles Travel

## **Definitions**

**Annual Average Daily Traffic (AADT)** – Annual Average Daily Traffic is the total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30<sup>th</sup>. Traffic counting is generally performed by electronic counting instruments moved from location throughout the State in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present. Annual ADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways, and other purposes.

**Bikeway Class I (Bike Path)** – Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with cross flow by motorists minimized.

**Bikeway Class II (Bike Lane)** – Provides a striped lane for one-way bike travel on a street or highway.

**Bikeway Class III (Bike Route)** – Provides for shared use with pedestrian or motor vehicle traffic.

**Capacity** – The maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic, and control conditions.

**Capital Facility Concept** – The 20-25 year vision of future development on the route to the capital facility. The capital facility can include capacity increasing, state highway, bicycle facility, pedestrian facility, transit facility (Intercity Passenger rail, Mass Transit Guideway etc.), grade separation, and new managed lanes.

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

**Conceptual Project** – A conceptual improvement or action is a project that is needed to maintain mobility or serve multimodal users, but is not currently included in a financially constrained plan and is not currently programmed. It could be included in a General Plan or in the unconstrained section of a long-term plan.

**Corridor** – A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, bicycle, pedestrian, and transit route alignments. Off system facilities are included for informational purposes and not analyzed in the TCR.

**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.

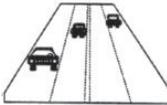
**Facility Type** – The facility type describes the state highway facility type. The facility could be freeway, expressway, conventional, or one-way city street.

**Freight Generator** – Any facility, business, manufacturing plant, distribution center, industrial development, or other location (convergence of commodity and transportation system) that produces significant commodity flow, measured in tonnage, weight, carload, or truck volume.

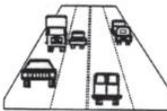
**Headway** – The time between two successive vehicles as they pass a point on the roadway, measured from the same common feature of both vehicles.

**Intelligent Transportation System (ITS)** – Improves transportation safety and mobility and enhances productivity through the integration of advanced communications technologies into the transportation infrastructure and in vehicles. Intelligent transportation systems encompass a broad range of wireless and wire line communications-based information and electronics technologies to collect information, process it, and take appropriate actions.

**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 generally be categorized as follows:



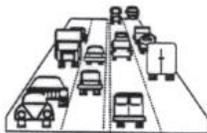
**LOS A** describes free flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway.



**LOS B** is 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 presence 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. This level, considered by most drivers unacceptable often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection.

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

**Multimodal** – The availability of transportation options using different modes within a system or corridor, such as automobile, subway, bus, rail, or air.

**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.

**Planned Project** – A planned improvement or action is a project in a financially constrained section of a long-term plan, such as an approved Regional or Metropolitan Transportation Plan (RTP or MTP), Capital Improvement Plan, or measure.

**Post-25 Year Concept** – This dataset may be defined and re-titled at the District's discretion. In general, the Post-25 Year concept could provide the maximum reasonable and foreseeable roadway needed beyond a 20-25 year horizon. The post-25 year concept can be used to identify potential widening, realignments, future facilities, and rights-of-way required to complete the development of each corridor.

**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 mile post 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. If relocation results in a change in length, "mile post equations" are introduced at the end of each relocated portion so that mile posts on the remainder of the route within the county will remain unchanged.

**Programmed Project** – A programmed improvement or action is a project in a near-term programming document identifying funding amounts by year, such as the State Transportation Improvement Program or the State Highway Operations and Protection Program.

**Route Designation** – A route's designation is adopted through legislation and identifies what system the route is associated with on the State Highway System. A designation denotes what design standards

should apply during project development and design. Typical designations include but not limited to National Highway System (NHS), Interregional Route System (IRRS), and Scenic Highway System.

**Rural** – Fewer than 5,000 in population designates a rural area. Limits are based upon population density as determined by the U.S. Census Bureau.

**Segment** – A portion of a facility between two points.

**System Operations and Management Concept** – Describes the system operations and management elements that may be needed within 20-25 years. This can include Non-capacity increasing operational improvements (Auxiliary lanes, channelization's, turnouts, etc.), conversion of existing managed lanes to another managed lane type or characteristic (e.g. HOV lane to HOT lane), TMS Field Elements, Transportation Demand Management, and Incident Management.

**Transportation Demand Management (TDM)** – Programs designed to reduce or shift demand for transportation through various means, such as the use of public transportation, carpooling, telework, and alternative work hours. Transportation Demand Management strategies can be used to manage congestion during peak periods and mitigate environmental impacts.

**Transportation Management System (TMS)** – Is the business processes and associated tools, field elements, and communications systems that help maximize the productivity of the transportation system. TMS includes, but is not limited to, advanced operational hardware, software, communications systems, and infrastructure, for integrated Advanced Transportation Management Systems and Information Systems, and for Electronic Toll Collection System.

**Urban** – 5,000 to 49,999 in population designates an urban area. Limits are based upon population density as determined by the U.S. Census Bureau.

**Urbanized** – Over 50,000 in population designates an urbanized area. Limits are based upon population density as determined by the U.S. Census Bureau.

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

## **Appendix B**

### **RESOURCES**

California Department of Transportation: *District 8 District System Management Plan*, December 2011.

County of San Bernardino Land Use Services: *San Bernardino County Land Use Plan*, May 2007