CALIFORNIA 133

STATE ROUTE 133 (TOLL)

TRANSPORTATION CONCEPT REPORT

District 12 - June 2014

The Transportation Concept Report (TCR) is Caltrans' long range planning document for each State Highway Route. The TCR provides information regarding route segments, incluvding planned projects and route development concepts for the next 20 years, and existing and forecasted traffic data. Projects identified in the TCR will require environmental and engineering studies before final approval and are subject to change.

Approvals:

LAN ZHOU Deputy District Director Planning and Local Assistance	8/4/2014 Date	RYAN CHAMBERLAIN Director District 12	8/4/14 Date

California Department of Transportation
Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.

Caltrans

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12-ORA PM 8.08/13.64

ABOUT THE TRANSPORTATION CONCEPT

System Planning is Caltrans long-range transportation planning program. The System Planning process fulfills Caltrans' statutory responsibility as owner/operator of the State Highway System (SHS) as it identifies deficiencies and needed highway improvements (Gov. Code §65086). Through long-term System Planning, Caltrans focuses on maximizing total system benefits and on developing a 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 DSMP Project List. The **DSMP** provides the goals for the development of the SHS within the whole District, the **TCR** develops the vision for the future development of each route in a District, the **CSMP** develops the vision for the future development of those routes which will require active management using strong partnerships with stakeholders, and the **DSMP Project List** is a list of planned and partially programmed transportation projects used to recommend projects for funding.

TCR Need, Purpose, and Goals

California needs long range planning documents to guide the logical and predictable development of transportation systems as required by law and as necessitated by public, stakeholder and system user needs. There is a need for a focused planning document for each highway route and its corresponding transportation corridor.

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, and will be updated approximately every five years. The TCR is developed with the goals of improving mobility, increasing safety, 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

As part of the development of the TCR, Caltrans coordinated with various jurisdictions located along the State Route 133 corridor, including the Cities of Irvine, Lake Forest, and Tustin, as well as the County of Orange, Transportation Corridor Agency (TCA), Orange County Transportation Authority (OCTA), and Southern California Association of Governments (SCAG). After a period of review and comment, written comments were received from each city, TCA, and OCTA. Comments were incorporated into the final report and supplemental information provided by internal and external partners was added. Much of the supplemental information was derived from internal documents from the Divisions of Maintenance, Project Development, Programming, Traffic Operations, and Travel Forecasting Unit, and external documents from the County of Orange, OCTA, and SCAG.

CALTRANS MISSION

As the owner and operator of the State Highway System, Caltrans strives to provide a transportation system that is safe, sustainable, and globally competitive. This system provides reliable and efficient mobility and accessibility for people, goods, and services while meeting our greenhouse gas emission reduction goals and preserving community character. This integrated, connected, and multimodal system supports a prosperous economy, a healthy environment and communities, and social equity. Caltrans' Mission serves as the core principle for the planning, developing, maintaining, and operating a safe and effective highway system for the people of Orange County.

CALTRANS GOALS

SAFETY: Provide the safest transportation system in the nation for users and workers.

MOBILITY: Maximize transportation system performance and accessibility.

DELIVERY: Efficiently deliver quality transportation projects and services.

STEWARDSHIP: Preserve and enhance California's resources and assets.

SERVICE: Promote quality service through an excellent workforce.

CALTRANS VALUES

INTEGRITY: We promote trust and accountability through our consistent and honest actions.

COMMITMENT: We are dedicated to public service and strive for excellence and customer satisfaction.

TEAMWORK: We inspire and motivate one another through effective communication, collaboration and partnership.

INNOVATION: We are empowered to seek creative solutions and take intelligent risks.

TRANSPORTATION CONCEPT REPORT

STATE ROUTE 133

12-ORA PM 8.08/13.64

EXECUTIVE SUMMARY

STATE ROUTE 133

State Route (SR) 133 is a freeway from Interstate (I-) 405 to I-5, and a tollway from I-5 to SR 241 at the Santa Ana Mountains. From the north, SR 133 provides access to and between the employment centers in the cities of Irvine, Lake Forest and Laguna Beach. From the south, SR 133 provides access to the Inland Empire through SR 241. The average daily traffic ranges from 32,000 to 45,000 vehicles. Travelers experience congestion during the weekday morning peak period at the merge of I-5 and I-405; however, congestion rarely occurs on weekends. The typical weekday peak directional traffic flow is southbound in the morning and northbound in the afternoon. The peak hour traffic volume accounts for 16-18% of the total weekday directional traffic. The average weekend traffic volume is approximately 35% less than the weekday's and displays similar directional flow.

ROUTE CONCEPT

The Route Concept delineates the minimum accessible future operating condition for a highway facility expressed in terms of Level of Service (LOS). The Route Concept for SR 133 is to maintain a LOS "C" for the toll facility and LOS "E" for the freeway portion.

CONCEPT RATIONALE

The concept rationale details why a specific Route Concept was assigned to a specific route considering geometric, right-of-way, environmental, and fiscal constraints. SR 133 serves the employment centers within the cities of Irvine, Lake Forest and Laguna Beach. The LOS "C" (65 miles per hour or greater) standard for SR 133 and other toll facilities is assigned to encourage motorists to use the toll facility instead of a non-toll facility, where the LOS may be decreased significantly during peak hours on the non-toll portion of SR 133.

LEVEL OF SERVICE SUMMARY TABLE

Segment	Postmile	Limits	Jurisdiction	2013 Existing # Lanes LOS	2035 Constrained # Lanes LOS	2035 Unconstrained # Lanes LOS
1	8.08-8.92	I-405 to I-5	Irvine	3 A	3 B	3 B
2	8.92-9.20	I-5 to Trabuco Rd	Irvine	3 A	4 B	4 B
3	9.20-11.57	Trabuco Rd. to Irvine Blvd.	Irvine	3 A	4 B	4 B
4	11.57-13.64	Irvine Blvd. to SR 241	Irvine	4 B	5 B	5 B

TRANSPORTATION CONCEPT REPORT

STATE ROUTE 133

EASTERN TRANSPORTATION CORRIDOR

12-ORA PM 8.08/13.64

CORRIDOR OVERVIEW

SEGMENTATION

For the purpose analysis, State Route (SR) 133 was divided into four segments based on change of classification, freeway or tollway and number of lanes, and existing and planned on and off-ramps.

The first segment, from Interstate (I-) 405 to I-5 is the freeway portion and has two lanes in each direction. The second segment is the beginning of the toll section and is three lanes that ends at Trabuco Road where a proposed on off ramp is to be constructed. The third segment continues with three lanes ends at the off-ramp of Irvine Boulevard. The fourth segment from Irvine Boulevard opens up to four lanes and terminates at the junction of SR 241. See **Figure 1** for more information.

FIGURE 1 - ROUTE SEGMENTATION

ROUTE DESCRIPTION

SR 133 operates as a conventional highway, an expressway, controlled access freeway, and toll road facility. The segment covered by this report consists of controlled access freeway and toll road. The tollway portion of SR 133 is known as the "Eastern Transportation Corridor", SR 133 is a three to four lane freeway/tollway with a wide median and shoulders in each direction throughout much of the corridor. SR 133 is a freeway between I-405 and I-5. North of I-5, SR 133 is a toll facility and continues northerly and terminates at the junction with SR 241. From this junction, the northern leg of the Eastern Transportation Corridor SR 241 terminates at SR 91. The southern leg of SR 133 terminates in Laguna Beach at the junction SR 1.

Before the approach for the toll plaza, toll is collected using the FasTrak system. The toll is automatically deducted from a prepaid TCA FasTrak account. Prior to May 14, 2014, users were able to use the right two lanes to pay cash.

HISTORY

Originally, SR 133 was designated as State Route 231 in 1988, connecting I-5 northwest of Irvine with SR 91. In 1996, SR 231 was changed to SR 133 for continuity purposes. The Eastern Transportation Corridor, which includes SR 133 north of I-5, was completed on October 15, 1998, creating a new access from Irvine to SR 91.

In 1981, the Orange County Environmental Management Agency (OCEMA) Master Plan of Arterial Highways included future routes SR 133, SR 241, and SR 261. The Transportation Corridor Agencies (TCA) are a combination of two agencies formed in 1986 (Foothill/Eastern Transportation Corridor Agency and San Joaquin Hills Transportation Corridor Agency) to plan, design, construct and operate the toll roads.

The toll segment of SR 133, between I-5 and SR 241 was added to the State Freeway and Expressway System in October 1998 and is managed by the Foothill/Eastern Transportation Corridor Agency. The Eastern Transportation Corridor is scheduled to be transferred to Caltrans on January 1, 2053.

TOLL ROADS IN ORANGE COUNTY

Studies conducted during the 1970s identified several new corridors needed to serve Orange County's booming population. Roughly sketched into county road plans by 1981, the future San Joaquin Hills, Foothill and Eastern Corridors were identified to meet this future traffic demand. Funding to construct these new facilities through traditional means did not materialize. The concept of charging tolls for the proposed roads first materialized in 1984, when two joint powers agencies were created – the Foothill/Eastern Transportation Corridor Agency and the San Joaquin Hills Transportation Corridor Agency to manage financing, construction, and operations of the three new toll facilities. Although each agency is separate, the two joint powers agencies are often referred to as the TCA. In 1987, Senate Bill 1413 passed, giving TCA the authority to construct new roads as toll facilities and issue bonds backed by future toll revenues and development impact fees.

The Transportation Corridor Agency's current 51 centerline miles of toll roads expanded from the initial segment of the Foothill Corridor that was opened in 1993. Sixteen miles of the planned 67-mile system remains to be constructed, comprising of the Tesoro Extension, from Oso Parkway to Cow Camp Road in the vicinity of Ortega Highway, which will extend the Toll Road five miles. Once segments become operational, various roadway expansions and improvement projects are required to keep pace with increasing traffic demands and changing conditions, land uses and demographics. These improvements, which comprise the Capital Improvement Plan (CIP), are all components of the total ultimate buildout of the Toll Road Corridors. The Ultimate Corridors will provide three or four mixed flow traffic lanes plus one High Occupancy Vehicle (HOV) lane in each direction. The CIP was first developed in the late 1990's and identified the complete list of projects required to attain ultimate build-out of the system. The CIPs have since been updated annually and subdivided into several project categories defined as Near-Term, Mid-Term, Long-Term, and Completed Capital Projects.

As of May 14, 2014 cash toll collection has ended. Ramp toll rates range from $0.90 to $1.75. The SR 133 Toll Road, rates vary from $1.70 to $1.75, depending on the time of day.

Though the TCA operates the toll collection system, Caltrans is responsible for implementing safety measures, maintenance, and operation of the toll facilities. Assisting in implementing safety is the California Highway Patrol, a statewide law enforcement organization that oversees accidents and traffic violations on the toll road.

LAND USE

Orange County encompasses 790 square miles and has a population of exceeding 3 million people. For transportation planning purposes, Orange County is considered to be a fully urbanized county. The County is a continuation of the greater Los Angeles metropolitan area to the north, with the Pacific Ocean to the west, the Cleveland National Forest to

the east, and Camp Pendleton Marine Corps Base to the south. The majority of the land in the county, not within or adjacent to the boundaries of the national forest is developed. The primary land use is residential with pockets of retail commercial, light industrial and professional office space. Industrial and commercial uses usually border freeways and major arterials.

State Route 133 from I-405 to the terminus at SR 241 is 5.56 miles long and is located entirely within Orange County and Caltrans District 12. The entire route serves the residential areas of Irvine, Lake Forest and Laguna Hills. This corridor area is located near many large employers in Orange County, particularly the Spectrum business complexes, as well as neighboring Newport Beach and South Orange County.

In addition to the employment centers, SR 133 serves several commercial and recreational centers as well. The current land uses along the SR 133 corridor are primarily residential on the western side with the Great Park on the eastern side and agricultural fields on both sides of SR 133. The decommissioned Marine Corps Air Station (MCAS) El Toro, which closed on July 2nd 1999, is currently undergoing redevelopment. The Great Park of Irvine now exists on the site of the former base and development plans call for a combination of residential, commercial, educational, recreational, and open-space uses.

PARALLEL ALTERNATE FACILITIES

State Route 133 runs in a southwest-northeast direction connecting to SR 241. The nearest existing parallel highway of significance is SR 261 located 4.25 miles to the west. Sand Canyon Avenue is a major arterial that runs parallel to SR 133.

PEDESTRIAN FACILITIES

There are no pedestrian facilities for this portion of the freeway or tollway.

BICYCLE FACILITIES

There are currently more than 1,000 miles of bikeways in Orange County, with roughly another 700 miles planned. Caltrans coordinates with local and regional agencies to plan, implement and maintain bikeways in those areas where they are allowed on State Right of Way. There is a Class II on-road bicycle lane beginning at Lake Forest Drive off of SR 133 and continues onward to Sand Canyon Avenue and ends at Portola Parkway.

There are a variety of infrastructure improvements that support bicycling for both commuting and for recreational uses. These include bike provisions at intersections, roadway improvements to reduce bike/vehicular conflicts, lighting, bike parking areas and racks, bike lockers, showers and lockers at employment centers, bike storage areas on Metrolink trains, and bike racks on buses.

<u>Class I – off-street paved bike paths</u> - Off-street paths are facilities on a separate right-of-way from roadways, and are usually shared by bicyclists and pedestrians. Shared paths should not be used as high-speed bikeways, as the safety of the other non-motorized users must be considered.

<u>Class II – on-road striped and signed bicycle lanes</u> - Bicycle lanes are on-street facilities that use painted stripes and stencils to delineate the right of way assigned to bicyclists and motorists, and to provide for more predictable movements by each.

<u>Class III – on-road shared-lane signed bicycle routes</u> - Bicycle routes are signed on-street facilities that accommodate vehicles and bicycles in the same travel lane. Bicycles are permitted on most roadways; however, for safety purposes, signed bicycle routes are often found on streets with lower speeds and traffic volumes.

TRANSIT SERVICE

Bus

The OCTA operates 76 fixed route bus lines, encompassing every city in Orange County and operates lines providing service to the Los Angeles County communities of Lakewood, La Mirada, Cerritos, Hawaiian Gardens, and Long Beach

along with express service to Los Angeles, Diamond Bar, the San Bernardino County cities of Chino Hills and Chino and the Riverside County cities of Riverside and Corona. However, OCTA does not provide any bus service on the freeway or tollway portion of the highway.

Rail

Metrolink, operated by the Southern California Regional Rail Authority (SCRRA) along with the National Railroad Passenger Corporation (AMTRAK) Pacific Surfliner operated by The Los Angeles – San Diego – San Luis Obispo Rail Corridor Joint Powers Agency (LOSSAN), are the intercity rail service providers in Orange County.

Metrolink is a coordinated effort, made possible by the Los Angeles County Metropolitan Transportation Authority (Metro), OCTA, the Riverside County Transportation Commission (RCTC), San Bernardino Associated Governments (SANBAG), and Ventura County Transportation Commission (VCTC). In 1991, the SCRRA, a Joint Powers Authority (JPA), consisting of the five county transportation planning agencies listed above, was formed to develop a regional rail service to reduce the congestion on highways and improve mobility throughout the Southern California region.

The Los Angeles – San Diego – San Luis Obispo Rail Corridor (LOSSAN Corridor) travels a 351-mile intercity Amtrak Pacific Surfliner route covering a six-county coastal region in Southern California and is the second busiest intercity passenger rail corridor in the United States. It is governed by the LOSSAN Corridor Agency, an 11-member Board of Directors composed of elected officials representing rail owners, operators, and planning agencies along the rail corridor. In September 2013, OCTA was elected as the current local managing agency.

The primary train station providing both Metrolink and Amtrak services in this corridor is the Irvine Station located about two miles from the SR 133/I-5 Interchange. A secondary station providing only Metrolink service in this corridor is the Tustin Station located about five miles from the SR 133/I-5 Interchange; however, Amtrak service can be accessed from here once arriving in Union Station. Three Metrolink lines serve Orange County but only two serve in the proximity of SR 133 and are listed below:

- The Orange County Line provides daily service between Oceanside in Northern San Diego County and Union Station in Downtown Los Angeles. The Orange County Line roughly parallels Interstate 5 and intersects with Jamboree Road west of Walnut Avenue.
- The Inland Empire – Orange County Line provide service between Oceanside and Riverside/San Bernardino.

Both stations provide commuter parking, bike racks, OCTA and the City of Irvine's i-Shuttle bus, taxi services and the Irvine Station provides shared-use zero-emission vehicles (ZEV) for use by commuters to travel from the station to their workplaces through the ZEV-NET program.

PARK AND RIDE

The Park and Ride program is an integral operational element of the State Highway System, not only in Orange County, but also throughout the region. Park and Ride lots encourage car, vanpool and transit ridesharing at the point of departure in order to reduce congestion and improve air quality.

There are no park and rides lots within the vicinity of SR 133. The closest park and ride lot is located at southwest corner of I-5/Jeffrey Road which consists of 225 spaces; however, the lot primary serves commuters on I-5.

FREIGHT MOBILITY

SR 133 is not on the National Freight Network, and not considered to be a major truck route in Orange County. According to TCA, the total truck volume of 3+ axles consists of 1% to 2% of the truck traffic. SR 133 can be used as a bypass to I-5 and SR 55 due to heavy congestion between the Inland Empire and Orange County.

CONTEXT SENSITIVE SOLUTIONS

Caltrans' Director's Policy Number 22 (2001) requires Caltrans use "Context Sensitive Solutions" as an approach to plan, design, construct, maintain, and operate its transportation system. These solutions use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance and performance goals. Context sensitive solutions are reached through a collaborative, interdisciplinary approach involving all stakeholders.

The context of all projects and activities is a key factor in reaching decisions. It is considered for all State transportation and support facilities when defining, developing, and evaluating options. When considering the context, issues such as funding feasibility, maintenance feasibility, traffic demand, impact on alternate routes, impact on safety, and relevant laws, rules, and regulations must be addressed. See http://www.dot.ca.gov/hq/oppd/context-solution.pdf for more details.

COMPLETE STREETS

Under the guidance of Deputy Directive 64-R1, Caltrans develops integrated multimodal projects in balance with community goals, plans, and values. Addressing the safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, is implicit in these objectives. Bicycle, pedestrian, and transit travel is facilitated by creating "complete streets" beginning early in system planning and continuing through project delivery, maintenance, and operations. Transit options, Park and Ride locations, and safe pedestrian crossings are some examples of efforts to meet these goals. Bicycle riders and pedestrians have a legal right to access most public roads in California as specified in California Vehicle Code (CVC) (Sections 21200-21212), and Streets and Highways Code (Sections 890 – 894.2). Bicyclists, pedestrians, and non-motorized traffic are permitted on all State facilities, unless prohibited (CVC, section 21960). The safety and mobility needs of all who have legal access to the transportation system must be addressed including requirements under the Americans With Disabilities Act of 1990 (ADA). More information is available at: http://www.dot.ca.gov/hq/tpp/offices/ocp/complete_streets.html.

Complete Streets concepts are especially critical on State Highways that also function as main streets through communities are challenged with balancing the public's need for roadways that provide local, regional and statewide connections. The updated 2013 *Main Street, California* provides guidance to recent updates to Caltrans manual and policies that improve multimodal access, livability, and sustainability within the transportation system. Incorporating principles of livability and sustainability into main street projects can help balance the need for an efficient multimodal transportation facility with local needs for a main street that functions as the heart of the community. *Main Street, California* is available at http://www.dot.ca.gov/hq/LandArch/mainstreet/.

CLIMATE ACTION PROGRAM

Assembly Bill (AB) 32 (California Global Warming Solutions Act of 2006) requires the reduction of greenhouse gas (GHG) emissions to 1990 levels by 2020. Executive Order S-17-06 directs State agencies to begin implementing AB 32 and the recommendations coming from the Climate Action Team (CAT). As a member of the CAT, Caltrans' Climate Action Program promotes clean and energy efficient transportation and provides guidance for mainstreaming energy and climate change issues into its business operations. The framework for this is provided by the Director's Policy 23 (Energy, Efficiency and Conservation) which is intended to implement a comprehensive, long-term departmental energy policy.

Caltrans' Climate Action Program is the result of a collaborative effort working with the various divisions and districts within Caltrans as well as the California Air Resources Board and the CAT to analyze and formulate transportation strategies that provide GHG reductions. Caltrans's Climate Action Program outlines transportation strategies consistent with the Governor's Strategic Growth Plan that contribute to GHG emission reduction and greening goals in the State.

Governor's Executive Order (EO) S-13-08 signed in November 2008 directs State agencies planning construction projects in areas vulnerable to sea level rise to begin planning for potential impacts by considering a range of sea level rise scenarios for the years 2050 and 2100.

LOCAL DEVELOPMENT-INTERGOVERNMENTAL REVIEW

Caltrans District 12 Local Development-Intergovernmental Review (LD-IGR) staff review proposals for federal, state, and local planning development activities that have the potential to impact State transportation facilities or other resources under Caltrans' jurisdiction, such as drainage facilities, and to recommend conditions of project approval that eliminate those impacts or reduce them to a level of insignificance. Typically, this involves the review of development proposals in which Caltrans is either a responsible (permitting) or commenting (reviewing) agency, but has no discretionary approval power over the project other than permit authority. LD-IGR staff work cooperatively with local lead agencies and developers in determining the type and level of mitigation needed to offset project impacts. They are also responsible for identifying other functional areas within District 12 that are affected by the proposal, and coordinating the circulation of appropriate documents with other functional areas for review and comment. For more information visit: http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/DD-25-R1_final.pdf.

One of many LD-IGR efforts is partnering with the North Irvine Transportation Mitigation (NITM) Committee to mitigated traffic impacts on the State Highway System. Established in 2003, the City of Irvine established development fees that are based on a demonstrated relationship between new development and future traffic volumes, as required by Assembly Bill 1600. This process allocates the cost of constructing each NITM Improvement to the future development areas within the city's proportionate traffic and circulation impact. NITM fees will be applicable to The Great Park development along SR 133.

SMART MOBILITY FRAMEWORK

Caltrans initiated a Smart Mobility Framework in 2010 to respond to the latest transportation challenges with new concepts and tools. The Smart Mobility Framework addresses the State mandate to find solutions to climate change, the need to reduce per capita vehicle miles traveled, the demand for a safe transportation system that gets people and goods to their destinations, and the commitment to create a transportation system that advances social equity and environmental justice. Smart Mobility moves people and freight while enhancing California's economic, environmental, and human resources by emphasizing convenient and safe multi-modal travel, speed suitability, accessibility, management of the circulation network, and efficient use of land. Caltrans has identified six principles that express the priorities and values of Smart Mobility: Location Efficiency, Reliable Mobility, Health and Safety, Environmental Stewardship, Social Equity, and a Robust Economy. This framework was used to form the route concept of the TCR.

FUTURE PROJECTS

A general purpose lane, HOV lane from Barranca Parkway to SR 241, and auxiliary lane from I-405 to I-5 are in the District System Management Plan (DSMP) project list at a cost of $64 million. A Mid-Term Capital Project for Trabuco Road Interchange is planned, with costs to be determined. It is planned to have HOV lanes on all the tollways, but no date or cost has been established. Future demand within this corridor will be incremental due to developments in the northern Irvine area including the Great Park.

ROUTE CONCEPT

The Route Concept delineates the minimum accessible future operating condition for a highway facility expressed in terms of Level of Service. The Route Concept for SR 133 is to maintain a Level of Service "C" on the entirety of the toll facility and the freeway segment is to maintain a Level of Service "E".

CONCEPT RATIONALE

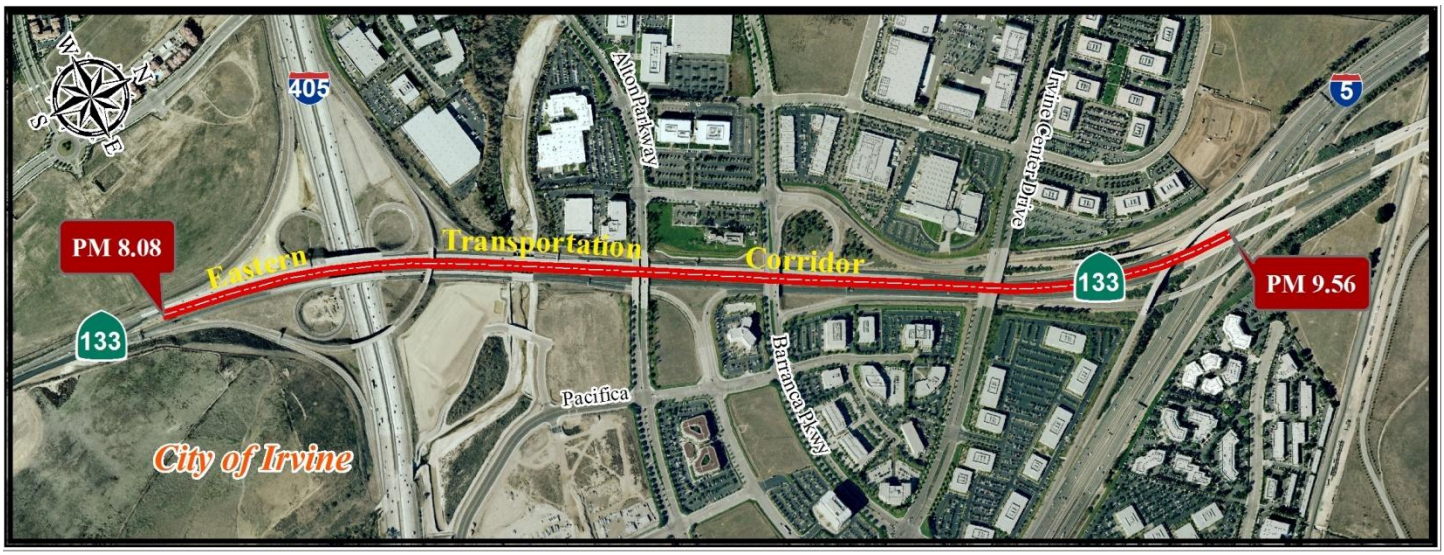
The concept rationale details why a specific Route Concept was assigned to a specific route considering geometric, right-of-way, environmental, and fiscal constraints. SR 133 serves the employment centers within the cities of Tustin, Irvine, Laguna Hills and Laguna Beach, with connections to SR 1, I-405, I-5 and SR 241. The utility of SR 133 is the seamless connection between (I-405 and SR 241) allowing motorists to enter and leave the area faster than they would otherwise be able to using a non-toll facility.

The Level of Service “C” (65+ MPH) standard for SR 133 and other toll facilities is assigned to encourage motorists to use the toll facility instead of a non-toll facility, where the Level of Service may deteriorate during peak hours.

TCA is responsible for setting the pricing on the toll facility based on usage and time of day and maintaining a Level of Service “E”.

SEGMENT FACT SHEETS

Segment 1: PM 8.08 – 9.56



SR 133 is the eastern leg of the Eastern Transportation Corridor (ETC). This segment is a six lane freeway with a wide median and shoulders in each direction throughout much of the corridor. The confluence of SR 133 forms a triangle with I-5 and I-405, which carry regional and local traffic.

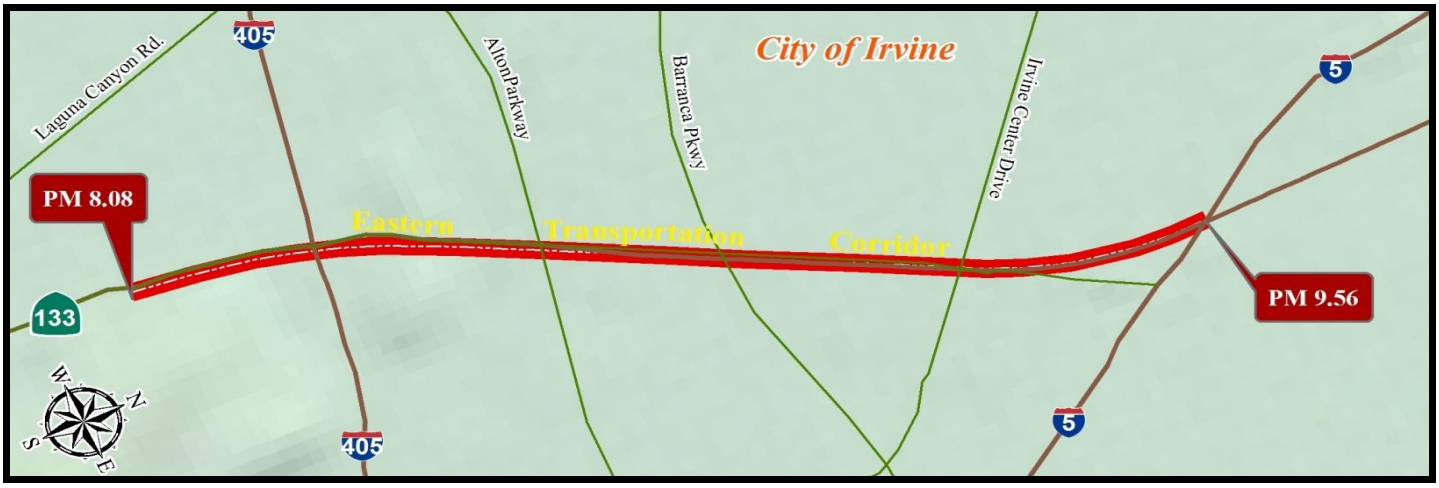
The Irvine Spectrum with more than 130 retail stores, restaurants, and entertainment venues, is located east of this segment and generates large volumes of traffic. There are several corporate offices located in this vicinity, they comprise of technology, pharmaceutical, and communications industries.

This portion of the toll road provides a shortcut to the Inland Empire and access to north Orange County. In the southbound direction, SR 133 provides access to beach communities and connection to I-405 to San Diego County.

Planned and Programmed Highway Improvement Projects

Location	Improvement	Project Type
8.38-9.57	State Route 133 HOV and GP lane	SHOPP
8.90-13.6	State Route 133 HOV lane from Barranca to SR 241	TSDP
9.55	State Route 133 Connector at I-405 and Barranca	TSDP

Segment 1: PM 8.08 – 9.56



NON-MOTORIZED	REGIONAL RAIL
Class II facilities accessible on parallel arterial of Sand Canyon Avenue, which parallels SR 133.	Amtrak Pacific Surfliner and Metrolink Orange County and Inland Empire Line serve SR 133 area; nearest station is Irvine.
PARK and RIDE	**BUS ROUTES**
None	OCTA –No service available

PHYSICAL CHARACTERISTICS		
Direction	**SB**	**NB**
Number of Lanes	3	3
Lane Widths	12'	12'
Inside Shoulder Type	Paved	Paved
Inside Shoulder Width	9'	9'
Outside Shoulder Type	Paved	Paved
Outside Shoulder Width	9-11'	8'
Sidewalks	No	No
On-Street Parking	No	No
Median Type	Unpaved	
Median Width	40-80'	
Terrain	Flat	
Divided / Undivided	Divided	
Posted Speed Limit	65	
Number of Signalized Intersections	0	
Pavement Condition	State 1 – No Distress	

SYSTEM DESIGNATIONS	
State Scenic Highway	No
MPAH Designation	N/A
Federal Designation	Freeway
Local Coastal Program	No

ANNUAL AVERAGE DAILY TRAFFIC (Year)	
Current	48,000
2035	62,000
PEAK HOUR VOLUMES	
Current	3,000
2035	3,900
TRAFFIC PROFILE	
Peak Hour Direction Distribution	(A.M.): South (P.M.): North
Traffic Growth/Year	1.1%
TRUCKS	
Truck Percentage of ADT	1%
Truck Percentage of Peak Hour	2%
LEVEL OF SERVICE	
2008 (Existing)	A*
2035 (No Build)	B*
2035 (Improved)	B*
DEMAND/CAPACITY RATIO	
2008 (Existing)	0.25*
2035 (No Build)	0.33*
2035 (Improved)	0.33*

*Derived from HCS 2010 Freeway Module

Segment 2: PM 9.56 – 10.89

Segment 2, located in the City of Irvine, is the beginning of the toll portion from I-5 interchange to Trabuco Road. The toll road is a three lane facility and is flat in terrain, with a wide median and shoulders in each direction. During peak period the connectors have higher traffic volumes and congestion.

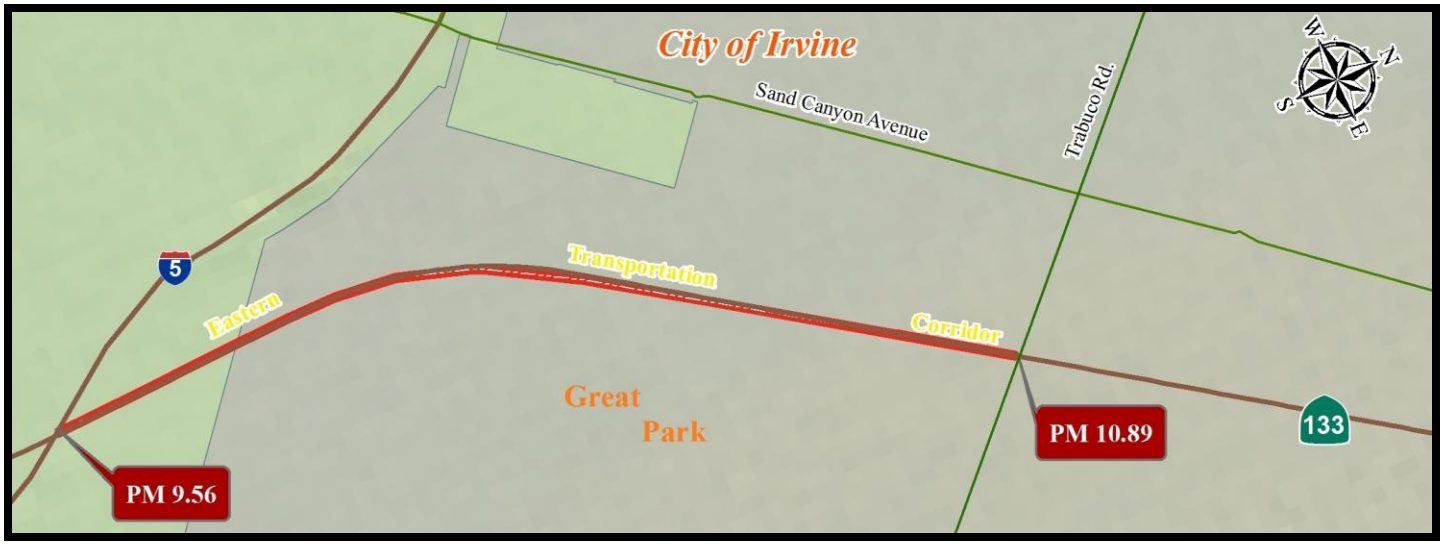
As of May 14th, 2014, the TCA ceased cash toll payment and toll collection has become automated pay only.

The Great Park, located adjacent to this segment on the east side, where residential development is currently under construction. There are development plans for rest of the Great Park for the next twenty years. Currently, there are activities in the Great Park such as a farmer's market, The Groves Antique Market, The Great Park Balloon ride, concerts and exhibits of art, science and the environment. Land adjacent on both sides of this facility is agricultural with some commercial development.

Planned and Programmed Highway Improvement Projects

Location	Improvement	Project Type
9.50-11.00	Build interchange at Trabuco Road	RTP
8.90-13.6	SR 133 HOV lane from Barranca to SR 241	TSDP

Segment 2: PM 9.56 – 10.89



NON-MOTORIZED	REGIONAL RAIL
Class II facilities accessible on parallel arterial of Sand Canyon Avenue, which parallels SR 133.	Amtrak Pacific Surfliner and Metrolink Orange County and Inland Empire Line serve SR 133 area; nearest station is Irvine.
PARK and RIDE	**BUS ROUTES**
None	OCTA –No service available

PHYSICAL CHARACTERISTICS		
Direction	**SB**	**NB**
Number of Lanes	3	3
Lane Widths	12'	12'
Inside Shoulder Type	Paved	Paved
Inside Shoulder Width	9'	9'
Outside Shoulder Type	Paved	Paved
Outside Shoulder Width	9-11'	10'
Sidewalks	No	No
On-Street Parking	No	No
Median Type	Unpaved	
Median Width	45-100'	
Terrain	Flat	
Divided / Undivided	Divided	
Posted Speed Limit	65	
Number of Signalized Intersections	0	
Pavement Condition	State 1 – No Distress	

SYSTEM DESIGNATIONS	
State Scenic Highway	No
MPAH Designation	N/A
Federal Designation	Toll Road
Local Coastal Program	No
ANNUAL AVERAGE DAILY TRAFFIC (Year)	
Current	32,000
2035	42,000
PEAK HOUR VOLUMES	
Current	2,900
2035	3,800
TRAFFIC PROFILE	
Peak Hour Direction Distribution	(A.M.): South (P.M.): North
Traffic Growth/Year	1.1%
TRUCKS	
Truck Percentage of ADT	1%
Truck Percentage of Peak Hour	1%
LEVEL OF SERVICE	
2008 (Existing)	A*
2035 (No Build)	B*
2035 (Improved)	B*
DEMAND/CAPACITY RATIO	
2008 (Existing)	0.25*
2035 (No Build)	0.32*
2035 (Improved)	0.32*

*Derived from HCS 2010 Freeway Module

Segment 3: PM 10.89 – 11.89

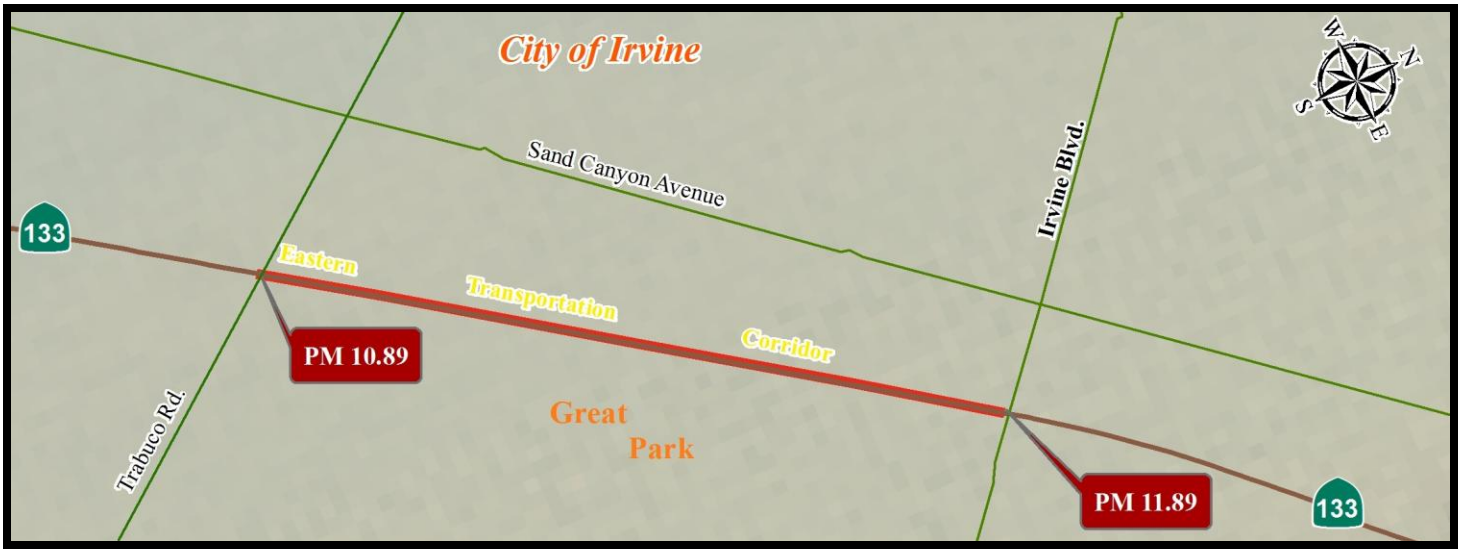
Segment 3 continues in the City of Irvine, as a three lane toll facility with wide median and shoulders. The terrain begins its slight incline. There is an interchange at Irvine Boulevard with automatic toll collection.

On the east side is the continuation and development of the Great Park. On the west side residential housing development of single and multi-family dwellings dominates the corridor, along with some commercial development. There are two mainline toll plazas on State Route 133, Irvine Boulevard and Orange Grove Toll Plaza.

Planned and Programmed Highway Improvement Projects

Location	Improvement	Project Type
8.90-13.6	State Route 133 HOV lane from Barranca to SR 241	SCAG

Segment 3: PM 10.89 – 11.89



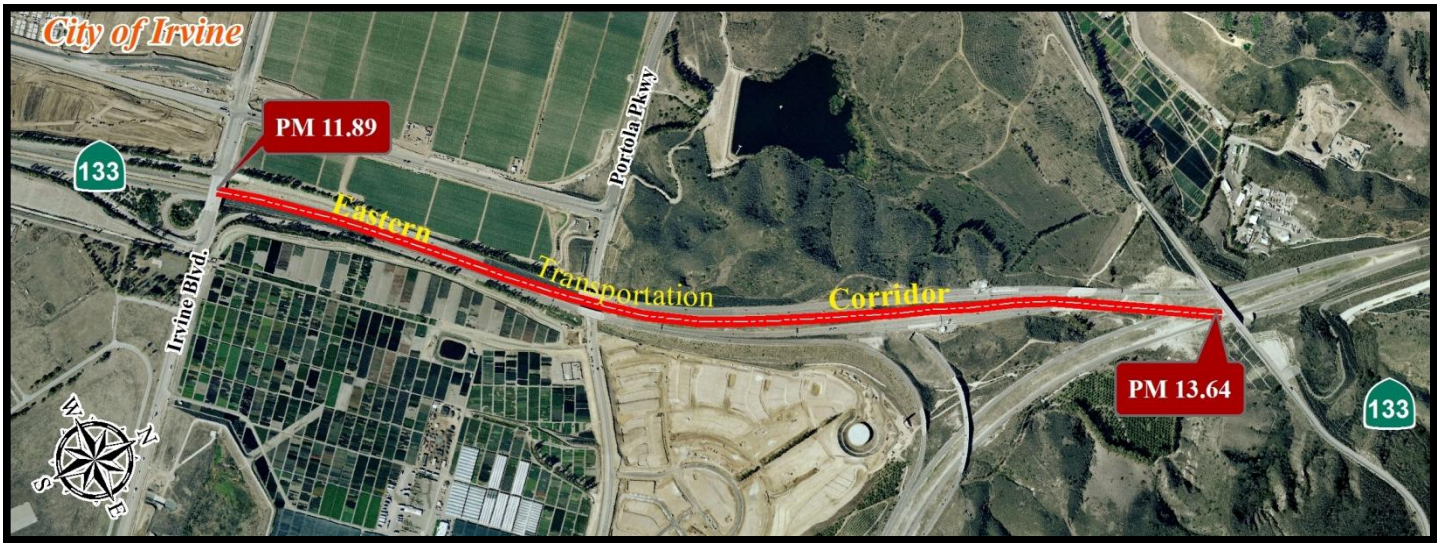
NON-MOTORIZED	REGIONAL RAIL
Class II facilities accessible on parallel arterial of Sand Canyon Avenue, which parallels SR 133.	Amtrak Pacific Surfliner and Metrolink Orange County and Inland Empire Line serve SR 133 area; nearest station is Irvine.
PARK and RIDE	**BUS ROUTES**
None	OCTA – No Service Available

PHYSICAL CHARACTERISTICS		
Direction	**SB**	**NB**
Number of Lanes	3	3
Lane Widths	12'	12'
Inside Shoulder Type	Paved	Paved
Inside Shoulder Width	9'	9'
Outside Shoulder Type	Paved	Paved
Outside Shoulder Width	8'	8'
Sidewalks	No	No
On-Street Parking	No	No
Median Type	Unpaved	
Median Width	45'	
Terrain	1-3% Grade	
Divided / Undivided	Divided	
Posted Speed Limit	65	
Number of Signalized Intersections	0	
Pavement Condition	State 1 – No Distress	

SYSTEM DESIGNATIONS	
State Scenic Highway	No
MPAH Designation	N/A
Federal Designation	Toll Road
Local Coastal Program	No
ANNUAL AVERAGE DAILY TRAFFIC (Year)	
Current	32,000
2035	45,000
PEAK HOUR VOLUMES	
Current	2,900
2035	4,100
TRAFFIC PROFILE	
Peak Hour Direction Distribution	(A.M.): South (P.M.): North
Traffic Growth/Year	1.5%
TRUCKS	
Truck Percentage of ADT	1%
Truck Percentage of Peak Hour	2%
LEVEL OF SERVICE	
2008 (Existing)	A*
2035 (No Build)	B*
2035 (Improved)	B*
DEMAND/CAPACITY RATIO	
2008 (Existing)	0.25*
2035 (No Build)	0.26*
2035 (Improved)	0.26*

*Derived from HCS 2010 Freeway Module

Segment 4: PM 11.89 – 13.64



Segment 4 continues in the City of Irvine with four lanes and ends at the Orange Grove Toll Plaza near the interchange of SR 241. The segment is climbing in elevation with a three to five percent grade. The land use is commercial development on the west side at Portola Parkway and agricultural fields on the east side. The City of Irvine has designated the east side for development of medium residential density in the future. The Santa Ana Mountains begins at the interchange of SR 241.

The configuration changes from three lanes to four lanes past Irvine Boulevard and continues as a four lane facility approaching Orange Grove Toll Plaza.

Planned and Programmed Highway Improvement Projects

Location	Improvement	Project Type
8.90-13.6	SR 133 HOV lane from Barranca to SR 241	SCAG

Segment 4: PM 11.89 – 13.64

NON-MOTORIZED	REGIONAL RAIL
Class II facilities accessible on parallel arterial of Sand Canyon Avenue, which parallels SR 133.	Amtrak Pacific Surfliner and Metrolink Orange County and Inland Empire Line serve SR 133 area; nearest station is Irvine .
PARK and RIDE	**BUS ROUTES**
None	OCTA –No service available

PHYSICAL CHARACTERISTICS		
Direction	**SB**	**NB**
Number of Lanes	4	4
Lane Widths	12'	12'
Inside Shoulder Type	Paved	Paved
Inside Shoulder Width	9'	9'
Outside Shoulder Type	Paved	Paved
Outside Shoulder Width	10'	11
Sidewalks	No	No
On-Street Parking	No	No
Median Type	Unpaved	
Median Width	45-125'	
Terrain	3-5%	
Divided / Undivided	Divided	
Posted Speed Limit	65	
Number of Signalized Intersections	0	
Pavement Condition	State 1 – No Distress	

SYSTEM DESIGNATIONS	
State Scenic Highway	No
MPAH Designation	N/A
Federal Designation	Toll Road
Local Coastal Program	No

ANNUAL AVERAGE DAILY TRAFFIC (Year)	
Current	53,000
2035	72,000
PEAK HOUR VOLUMES	
Current	4,100
2035	5,600
TRAFFIC PROFILE	
Peak Hour Direction Distribution	(A.M.): South (P.M.): North
Traffic Growth/Year	1.3%
TRUCKS	
Truck Percentage of ADT	1%
Truck Percentage of Peak Hour	2%
LEVEL OF SERVICE	
2008 (Existing)	B*
2035 (No Build)	B*
2035 (Improved)	B*
DEMAND/CAPACITY RATIO	
2008 (Existing)	0.27*
2035 (No Build)	0.30*
2035 (Improved)	0.30*

*Derived from HCS 2010 Freeway Module

DEFINITIONS

AB – Assembly Bill

ADA – Americans with Disabilities Act

CAT – Climate Action Team

CSMP – Corridor System Management Plan

CVC – California Vehicle Code

DSMP – District System Management Plan

EO – Executive Order

FasTrak – An electronic toll-collection system used on tollways in California

GHG – Greenhouse Gas

HMP – Highway Maintenance Project

I – Interstate

IC-Interchange

LD/IGR – Local Development/Intergovernmental Review

MPAH – Master Plan of Arterial Highways

OCEMA – Orange County Environmental Management Agency

OCTA – Orange County Transportation Authority

PID – Project Initiation Document

SHOPP – State Highway Operations and Protection Programs

SHS – State Highway System

SR – State Route

TCA – Transportation Corridor Agencies

TCR – Transportation Concept Report

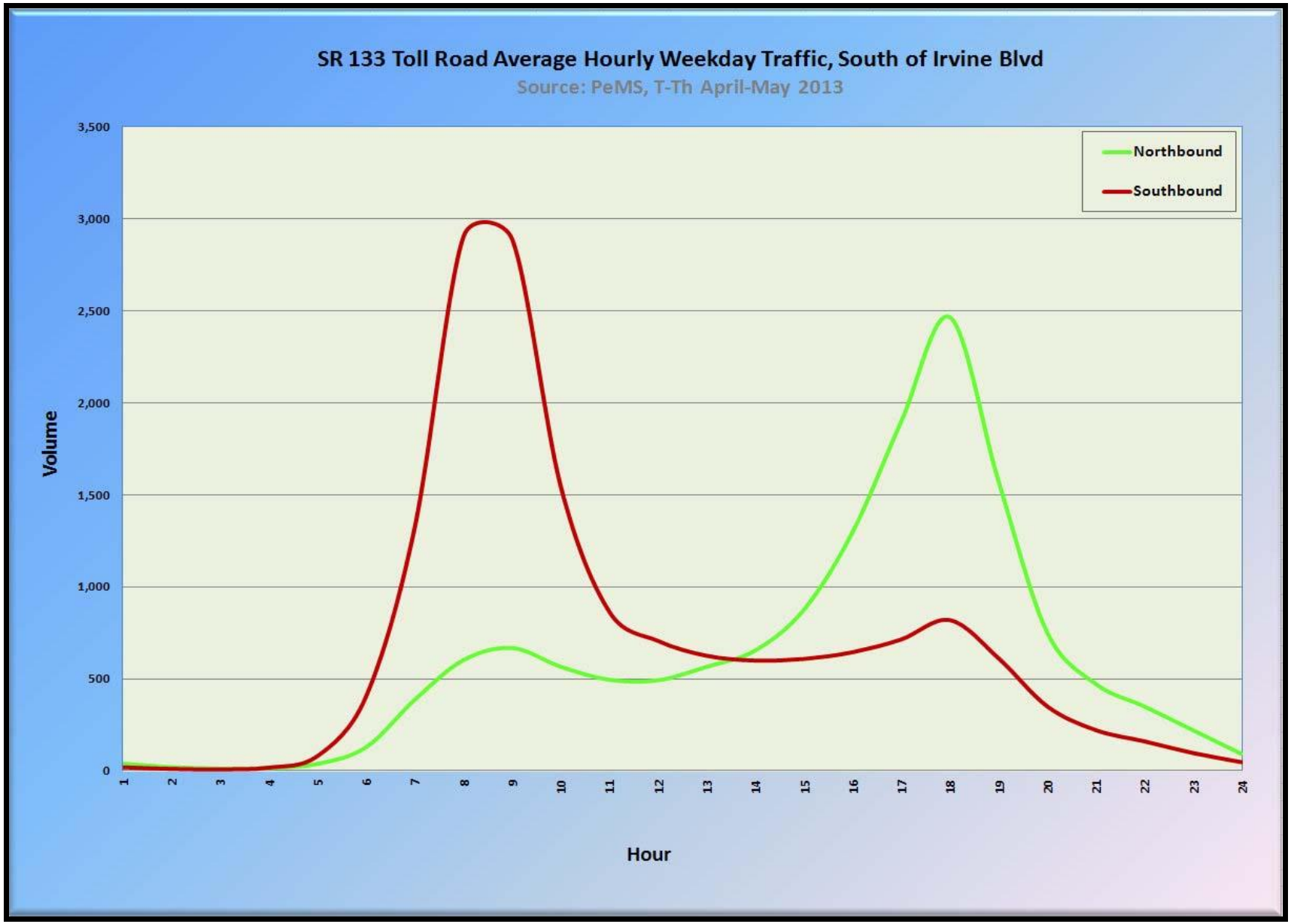
TSM – Transportation System Management

ZEV – Zero Emission Vehicles

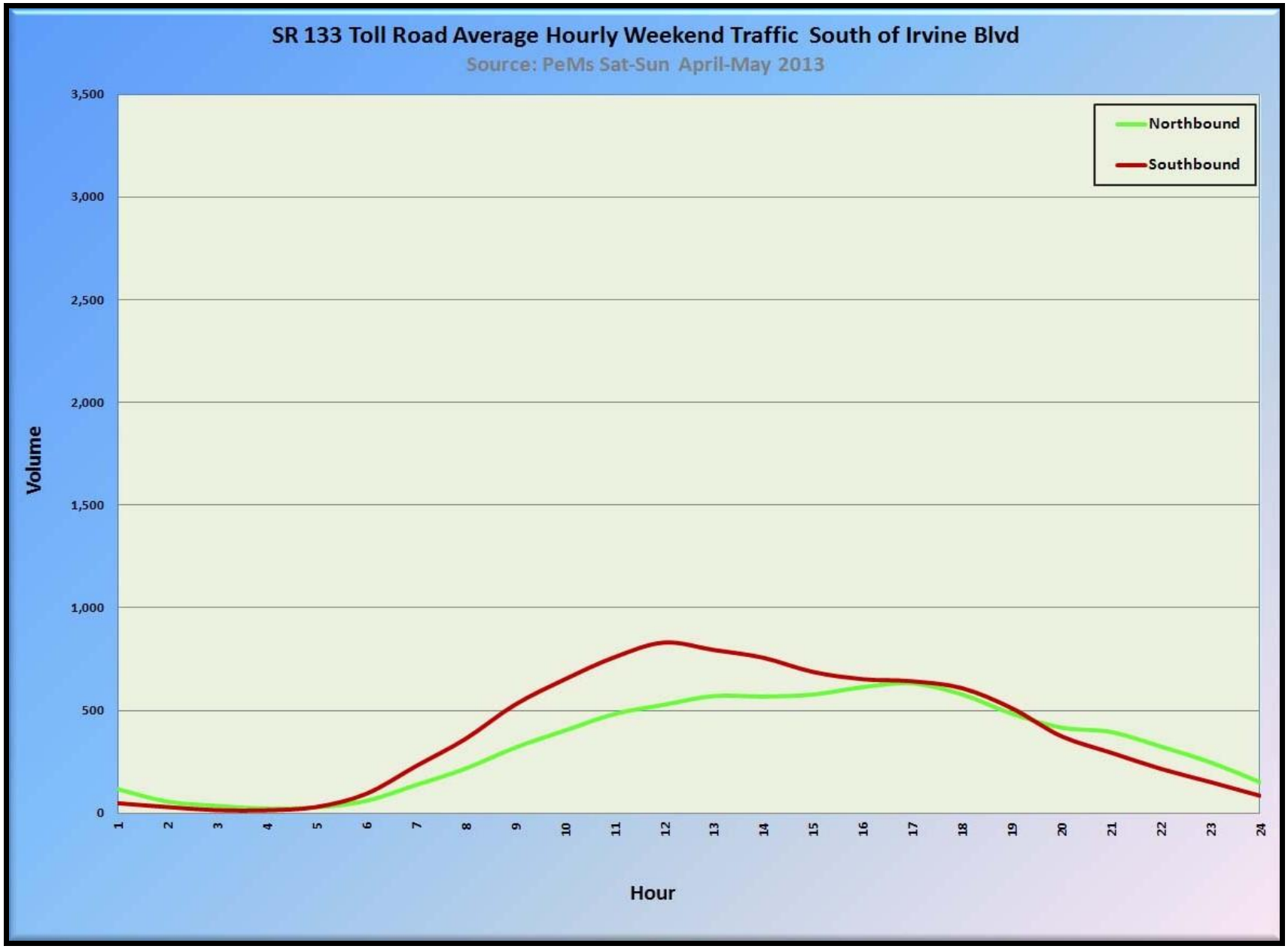
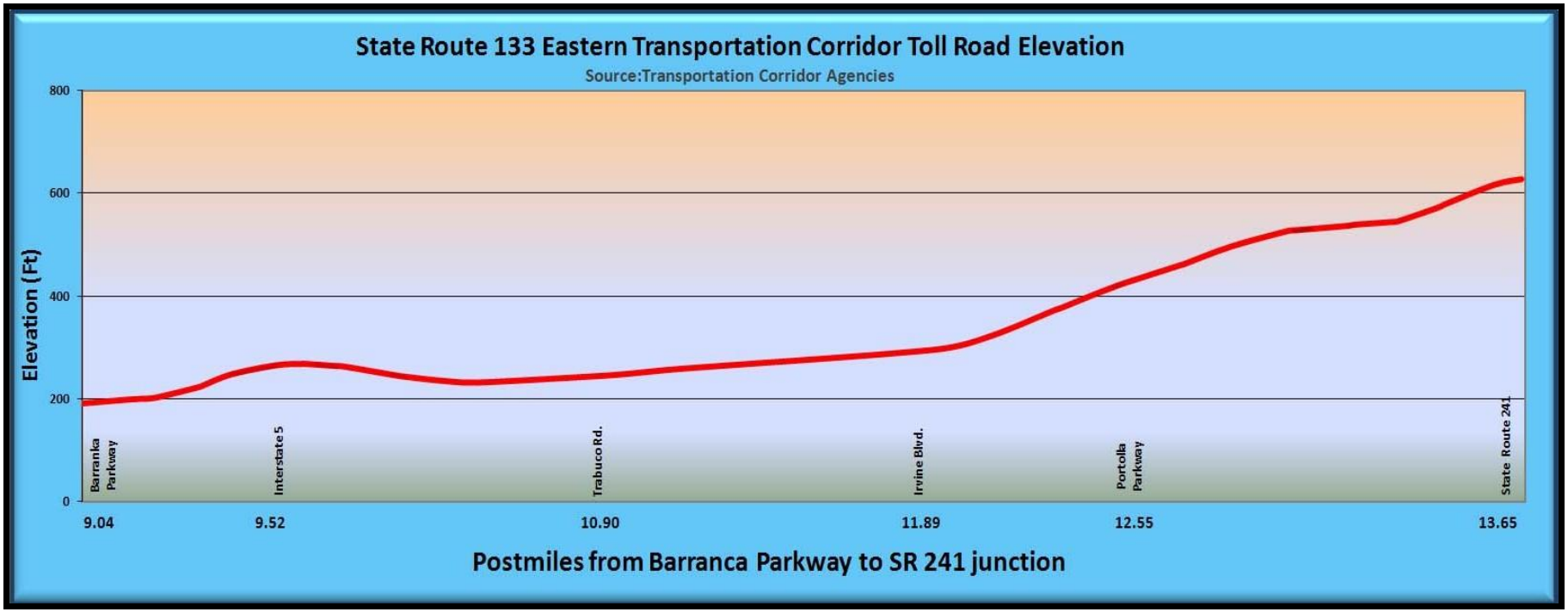
ZEV-NET – a partnership between UC Irvine and private companies in Irvine that provides battery-powered transportation for the critical 'last mile' commutes.

APPENDIX

Appendix A – State Route 133 Toll Road Average Hourly Weekday Traffic



Appendix B – State Route 133 Toll Road Average Hourly Weekend Traffic



Appendix C – State Route Toll Road Elevation