



# Transportation Concept Report

## State Route 111

### District 11



### Transportation Concept Report (TCR) Purpose

California’s State Highway System needs long range planning documents to guide the logical development of transportation systems as required by CA Gov. Code §65086 and as necessitated by the 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 and health, providing excellent stewardship and efficiency, maintaining system performance, and meeting community and environmental needs of sustainability, livability and economy along the corridor through integrated management of the transportation network, including highway, transit, pedestrian, bicycle, freight, operational improvements and travel demand management components of the corridor.

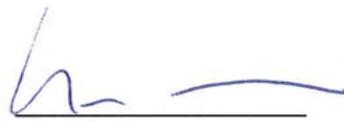
### California Department of Transportation

“Provide a safe, sustainable, integrated, and efficient transportation system to enhance California’s economy and livability”

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## ABOUT THE TRANSPORTATION CONCEPT REPORT

System Planning is the long-range transportation planning process for the California Department of Transportation (Caltrans). The System Planning process fulfills the statutory responsibility of Caltrans as owner/operator of the State Highway System (SHS) by evaluating conditions and proposing enhancements to the SHS (Gov. Code §65086). Through System Planning, Caltrans focuses on developing an integrated multimodal transportation system that meets the 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 district-wide **DSMP** is a strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The **TCR** is a planning document that identifies the existing and future route conditions as well as future needs for each route on the SHS. The **CSMP** is a complex, multi-jurisdictional planning document that identifies future needs within corridors experiencing or expected to experience high levels of congestion. The CSMP serves as a TCR for segments covered by the CSMP. The **DSMP Project List** is a list of planned and partially programmed transportation projects used to recommend projects for funding. These System Planning products are also intended as resources for stakeholders, involving the public as well as regional and local agencies.

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 11 System Planning Division 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.

## STAKEHOLDER PARTICIPATION

As part of the development of this TCR, Caltrans District 11 has coordinated with the jurisdictions located along the State Route 111 (SR-111) corridor. The local stakeholders include the Cities of Calexico, Brawley, and Calipatria, as well as the County of Imperial and the Imperial County Transportation Commission (ICTC). Obtaining internal and external input during the TCR development and reviewing the draft report are essential to validate data and the overall characterization of the route and obtain consensus on future needs and opportunities. Much of the TCR information came from internal Caltrans files and databases managed by the Divisions of Program and Project Management, Traffic Operations, Environmental Planning, and Transportation Planning (Travel Modeling and Forecasting Branch) in addition to our System Planning counterparts in Caltrans Headquarters and adjacent Caltrans Districts. Caltrans staff reviewed and considered partner agency documents such as City and County General Plans, Regional Transportation Plans, Bicycle Transportation Plans, Public Transit Plans, traffic studies, TCRs of adjoining Caltrans Districts, statewide planning tools (such as the Intermodal Transportation Management System - ITMS, the California Transportation Investment System - CTIS, California Transportation Improvement Program System - CTIPS, etc.) and other related documents.

## EXECUTIVE SUMMARY

The California Department of Transportation (Caltrans) has prepared this Transportation Concept Report (TCR) for State Route 111 (SR-111) from the U.S.-Mexico international border to the Riverside-Imperial County line. The TCR is a long term consensus-based vision intended to assist Caltrans, the Southern California Association of Governments (SCAG), the Imperial County Transportation Commission (ICTC), and other public agencies serving Imperial County in managing the route. The report includes an assessment of current and future operating conditions, and improvements that will be needed to meet operational goals on the route.

### Concept Summary

SR-111 provides international, interregional, local, recreational, and commercial travel in Imperial County (County). It also serves traffic to and from Mexico via the two international land Ports of Entry (POEs). SR-111 acts as a major intercity connector in the County and operates as an urban arterial for the Cities of Calexico and Calipatria. The portion of SR-111 from Interstate 8 (I-8) to the SR-78/111 east interchange is the primary carrier of trucks between the international border and the greater Los Angeles area via SR-7, I-8, SR-78, and SR-86. This section of SR-111 has been developed as an expressway and is vital for the movement of international trade. The route is also instrumental in providing goods movement for agricultural activities in Imperial Valley, transporting agricultural goods from the agriculture fields to consumer distribution centers throughout the U.S.

This route can be viewed in eight broad sections: From south of Second Street (north of International Border) to SR-98 (segment 1), SR-98 to SR-86 (segment 2), SR-86 to I-8 (segment 3), I-8 to Worthington Road (segment 4), Worthington Road to SR-78 New East Junction (segment 5), north of segment 5 there is a route break from SR-78 New East Junction to Shank Road (SR-78 Brawley Bypass), Shank Road to SR-115 (segment 6), SR-115 to English Road (segment 7), and English Road to the Riverside County Line (segment 8). These areas generally differ in terrain, traffic volumes, and functional classification.

## Concept Rationale

SR-111 is a key transportation corridor in Imperial County that accommodates anticipated local traffic and cross-border travel growth, facilitating the movement of goods, services, and people between California and Mexico. Equally important, SR-111 serves as an urban arterial “main street” for the Cities of Calexico and Calipatria providing safety, access, and mobility for all travelers, including bicyclists, pedestrians, and patrons of public transit.

To achieve the concept described above, in addition to planned capital capacity increasing projects, system operations and management concepts need to be further developed for the corridor.

**Table 1: SR-111 Concept Rationale<sup>1</sup>**

Segment	Segment Description	Existing Facility	Mid-term <sup>2</sup> Capital Facility Concept	Mid-term System Operations and Management Concept	Mid-term Facility Concept	Long-term <sup>3</sup> Concept
1	South of Second Street (north of International Border) to SR-98	4C <sup>4</sup>	4C		4C	4C
2	SR-98 to SR-86	4E <sup>5</sup>	6F <sup>6</sup>	Interchanges at Jasper Road and Heber Road	6F, Interchanges at Jasper Road and Heber Road	6F, Interchanges at Jasper Road and Heber Road
3	SR-86 to I-8	4E	6F	Interchange at McCabe Road and an overpass at Chick Road	6F, Interchange at McCabe Road and an overpass at Chick Road	6F, Interchange at McCabe and an overpass at Chick Road
4	I-8 to Worthington Road	4E	4E		4E	6F, Interchanges at Aten Road and Worthington Road
5	Worthington Road to SR-78 New East Junction	4E	4E		4E	6F, Interchanges at Keystone Road and SR-78
6	Shank Road to SR-115	2C	4C		4C	4C
7	SR-115 to English Road	2C	2C		4C	4C
8	English Road to Riverside County Line	2C	2C		4C	4C

<sup>1</sup> SCAG Regional Transportation Plan, Imperial County 2007 Transportation Plan Highway Element.

<sup>2</sup> Mid-term projects (2015-2025).

<sup>3</sup> Long-term projects (2025-2035).

<sup>4</sup> C (Conventional Highway).

<sup>5</sup> E (Expressway).

<sup>6</sup> F (Freeway).

**Table 2: Proposed Projects and Strategies**

Segment	Description	Planned or Programmed	Location	Source	Purpose	Implementation Phase
2, 3	Widen and improve to six lane freeway with interchanges at Heber Road, McCabe Road, and Jasper Road and an overpass at Chick Road	Planned	From SR-98 to I-8	SCAG 2012 RTP <sup>7</sup> /SCS <sup>8</sup>	Identified RTP Mid-term project	Mid-term
4, 5	Widen and improve to six-lane freeway; add interchanges at Aten Road, Worthington Road, Keystone Road, and SR-78	Planned	From I-8 to SR-78	SCAG 2012 RTP/SCS	Identified RTP Long-term project	Long-term (Unconstrained project list)
6	Widen and improve to four-lane conventional highway	Planned	From Shank Road to SR-115	SCAG 2012 RTP/SCS	Identified RTP Mid-term project	Mid-term (Unconstrained project list)
7, 8	Widen and improve to four-lane conventional highway	Planned	From Young Road to Riverside County Line	SCAG 2012 RTP/SCS	Identified RTP Long-term project	Long-term (Unconstrained project list)

In addition to the projects listed above, the U.S. General Services Administration (GSA) also plans to expand the Calexico West POE. All southbound and some northbound cross border traffic will be relocated to the west of the existing facility; northbound cross border traffic will exit via Cesar Chavez Boulevard or SR-111. After the Calexico West POE expansion project is completed, SR-111 will cease to have a direct southbound connection to the POE. In the future, the POE will be accessed primarily via Cesar Chavez Boulevard and SR-98. Improvements are also proposed to Cesar Chavez Boulevard and SR-98. These improvements include widening, signalization, channelization, lighting, and enhancements to pedestrian, bicycle and American with Disabilities (ADA) facilities.

<sup>7</sup> RTP (Regional Transportation Plan).

<sup>8</sup> SCS (Sustainable Community Strategy).

## CORRIDOR OVERVIEW

### ROUTE SEGMENTATION

SR-111 can be viewed in eight broad segments: The first five are from south of Second Street (north of the International Border) to SR-98 (segment 1), SR-98 to SR-86 (segment 2), SR-86 to I-8 (segment 3), I-8 to Worthington Road (segment 4), Worthington Road to SR-78 New East Junction (segment 5). North of segment 5 there is a route break from SR-78 New East Junction to Shank Road (SR-78 Brawley Bypass)<sup>9</sup>. The last three segments are Shank Road to SR-115 (segment 6), SR-115 to English Road (segment 7), and English Road to the Riverside County Line (segment 8). These areas generally differ in terrain, traffic volumes, and functional classification (see Map 1 below).

**Table 3: SR-111 Route Segmentation**

Segment Number	Location Description	County Route Beginning Post Mile (PM)	County Route End PM
1	South of Second Street (north of International Border) to SR-98 <sup>10</sup>	R000.202 <sup>11</sup>	R001.183
2	SR-98 to SR-86	R001.183	R004.741
3	SR-86 to I-8	R004.741	R007.714
4	I-8 to Worthington Road	R007.714	R012.874
5	Worthington Road to SR-78 New East Junction	R012.874	022.015
6	Shank Road to SR-115	023.538	032.513
7	SR-115 to English Road	032.513	042.470
8	English Road to Riverside County Line	042.470	065.395

<sup>9</sup> The old alignment of SR-78/111 traversing the City of Brawley was relinquished in two phases. The north-south segment (SR-111) was relinquished in June 2011, and the east-west segment (SR-78) was relinquished in 2012 upon opening stage 3 of the Brawley Bypass (SR-78).

<sup>10</sup> In 2012, the GSA condemned the south end of SR-111 (from the International Border to the Union Pacific Railroad crossing) to accommodate the expansion of the Calexico West POE project. Caltrans has suggested to GSA to condemn an additional segment (from the railroad crossing to Second Street- PM R000.202) for traffic operations purposes.

<sup>11</sup> After condemnation of the south end of SR-111, an official beginning PM of the route has yet to be determined. According to Caltrans District 11 Division of Land Surveys the new PM is about PM 0.159 for the southbound section and about PM 0.155 for the northbound section, around 0.043 to 0.047 miles south of Second Street PM R000.202, respectively.

# State Route 111 Route Segmentation



Map 1: SR-111 Segmentation

## **ROUTE DESCRIPTION**

**Route Location:** SR-111 begins south of Second Street (north of International Border) in the City of Calexico (just north of the U.S.-Mexico international border) and continues north 103.8 miles to the City of Indio in Riverside County. SR-111 then turns westerly and extends another 41 miles to its terminus at I-10, north of Palm Springs, in Riverside County. In Imperial County parallel State Routes include SR-86, located to the west of SR-111 from 4.6 miles north of the International Border to the City of Coachella, SR-115 located to the east of SR-111 from I-8 to the City of Calipatria, and SR-7 located to the east of SR-111 from the International Border to I-8. SR-111 intersects with SR-98, SR-86, I-8, SR-78, and SR-115. North of segment 5 there is a route break from SR-78 New East Junction to Shank Road (SR-78 Brawley Bypass). This Transportation Concept Report only covers the Imperial County portion. Caltrans District 8 has a similar document for the Riverside County portion.

**Route Purpose:** SR-111 serves traffic and trade to and from Mexico via the two international land Ports of Entry (POEs) in Calexico. SR-111 is also a major intercity connector in Imperial County and serves as an urban arterial for some cities in Imperial County. The southern portion of the route, located in Imperial County, serves interregional, recreational, commercial, and local travel. The portion of SR-111 from I-8 to SR-78 is the primary truck route between the international border and the Los Angeles area via SR-7, I-8, SR-78, and SR-86. This part of SR-111 has been developed as an expressway and is vital for the movement of international trade. The route is also instrumental in providing goods movement for the agricultural activities in Imperial County. Agricultural goods are transported from the fields to consumer distribution centers throughout the U.S. Agriculture is the major economic base in the Imperial Valley. A secondary economic source for the County is retail service for recreational activities. Major points of recreational significance served by SR-111 include the Salton Sea and many off road vehicle areas. SR-111 also provides commute service between Calexico, El Centro, Brawley, Calipatria, Niland, and Bombay Beach.

### **Major Route Features:**

SR-111 is part of the National Highway System (NHS) from the International Border to the SR-78 New East Junction. The purposes of the NHS are: to provide an integrated national highway system that serves both urban and rural America; to connect major population centers, international border crossings, ports, airports, public transportation facilities, and other major travel destinations; to meet national defense requirements; and to serve interstate and interregional travel.

To facilitate the movement of goods, services, and information between California and Mexico and to accommodate recent and anticipated growth in cross-border travel, California identified a NAFTA (North American Free Trade Agreement) transportation network (NAFTA-NET). Routes on this system are critical transportation corridors that serve trade and traffic through the land POEs between California and Mexico. SR-111 is included in the NAFTA-NET. SR-111 is an important part of the high level expressway connection between the U.S.-Mexico international border and I-10 in Riverside County that has been called the "NAFTA Farm-To-Market Highway." This system consists of the SR-7 expressway, the SR-111 expressway, the SR-78 Brawley Bypass expressway, and the SR-86 expressway north of Brawley. This system facilitates interregional travel throughout the Imperial and Coachella Valleys, improves intercity and international travel between Baja California, Mexico, and the Los

Angeles metropolitan area, and provides an improved facility for the movement of goods throughout the region.

SR-111 is also included in the Intermodal Corridors of Economic Significance (ICES) system from the U.S.-Mexico international border to SR-78. The ICES system emphasizes corridors that are most essential to the California economy in terms of national and international trade. Caltrans developed this transportation network. To be included in the ICES system, a route provides access between major freight intermodal facilities and serves freight traffic with the NAFTA countries of Canada and Mexico, as well as the Pacific Rim, and other U.S. trade markets. The route carries high interstate and international freight volumes with values important to the economy of California.

SR-111 is not included in the statewide list of Life Line Routes for earthquake emergency response, and is not an Officially Designated State Scenic Highway. However, the portion of SR-111 from Bombay Beach Road to the Riverside County line is eligible to be designated as a State Scenic Highway.

Being a key transportation corridor in Imperial Valley, SR-111 south of SR-78 is part of the High Emphasis Interregional Route System (IRRS), which is composed of major through trunkline routes that form the backbone of the State's transportation network. SR-111 is one of ten routes in the State that are part of the Interregional Focus Routes system. Focus Routes have the highest priority for completion to minimum facility standards within 20 years. These facilities will ensure that a statewide core system will be in place for higher volume interregional mobility<sup>12</sup>.

SR-111 is also part of the interregional Calexico-Coachella Cargo Corridor (C-4), a major goods movement corridor providing movement for interregional, intra-regional, and international trips. The C-4 is a regional transportation freight corridor that links the movement of goods from Mexico to Southern California and the rest of the State. The C-4 corridor starts with SR-7 at the Calexico West POE, continues on Interstate 8 near El Centro, turns north onto SR- 111, heads west on SR-78, continues on the SR-86 and connects with Interstate 10 in the Coachella Valley.

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<sup>12</sup> California Department of Transportation (2008). *Interregional Transportation Strategic Plan*. <http://www.dot.ca.gov/hq/transprog/ocip/te/itsp.pdf>

**Table 4: Route Designations and Characteristics**

Segment #	1	2, 3, 4, 5	6, 7, 8
<b>Freeway and Expressway</b>	Conventional Highway	Expressway	Conventional Highway
<b>National Highway System</b>	Yes	Yes	No
<b>Strategic Highway Network</b>	No	No	No
<b>Scenic Highway</b>	No	No	No <sup>13</sup>
<b>Interregional Road System</b>	Yes	Yes	Yes
<b>High Emphasis</b>	Yes	Yes	No
<b>Focus Route</b>	Yes	Yes	No
<b>Federal Functional Classification</b>	Other Principal Arterial	Other Principal Arterial/Major Collector <sup>14</sup>	Minor Arterial
<b>Goods Movement Route</b>	No	Yes	Yes
<b>Truck Designation</b>	CA Legal <sup>15</sup>	Terminal Access (STAA) <sup>16</sup>	Terminal Access
<b>Rural/Urban/Urbanized</b>	Urban Cluster	Rural	Urban Cluster <sup>17</sup> /Rural
<b>Metropolitan Planning Organization</b>	SCAG	SCAG	SCAG
<b>Regional Transportation Planning Agency</b>	ICTC <sup>18</sup>	ICTC	ICTC
<b>County Transportation Commission</b>	ICTC	ICTC	ICTC
<b>Regional Transit Agency</b>	ICTC	ICTC	ICTC
<b>Local Agency</b>	City of Calexico	City of Calexico, County of Imperial	County of Imperial, City of Calipatria
<b>Tribes</b>	None	None	None
<b>Air District</b>	Imperial County Air Pollution Control District	Imperial County Air Pollution Control District	Imperial County Air Pollution Control District
<b>Terrain<sup>19</sup></b>	Flat	Flat	Flat

<sup>13</sup> SR-111 from Bombay Beach to Riverside County Line PM 57.6 to 65.4 is eligible to be part of the Scenic Highway system.

<sup>14</sup> SR-111 part of segment 2 from SR-98 to Cole Street is classified as a Major Collector.

<sup>15</sup> Segment 1 California Legal Only = 65-foot overall length, 40-foot KPRA (Kingpin-to-Rear Axle) from Mexican International Border to SR-98.

<sup>16</sup> STTA (Surface Transportation Assistance Act).

<sup>17</sup> The segment in Calipatria (population 7,710) is classified as an Urban Cluster; the rest of the segment is classified as Rural.

<sup>18</sup> ICTC (Imperial County Transportation Commission).

<sup>19</sup> D11 Traffic Operations Traffic Accident Surveillance and Analysis System (TASAS) website.

## **COMMUNITY CHARACTERISTICS**

Imperial County is a desert region with high temperatures and a low average rainfall of 2.92 inches per year.<sup>20</sup> The Imperial County economy is primarily based on irrigated agriculture, supplied wholly from the Colorado River via the All-American Canal and cross-border trade and travel.

The U.S. Census Bureau estimated the population of Imperial County to be 176,584 in 2013, an increase of 1.4 per cent from the 2010 census population data.<sup>21</sup> The majority of Imperial County residents, 81.8 percent (144,486) are of Hispanic origin<sup>22</sup>.

The racial and ethnic makeup of Imperial County in 2013 was:

<b>Total Population</b>	176,584	100%
<i>Hispanic or Latino (of any race)</i>	144,486	81.82%
<i>Not Hispanic or Latino</i>	32,098	18.18%
White alone	22,388	12.68%
Black or African American alone	4,496	2.55%
American Indian and Alaska Native alone	1,370	0.78%
Asian alone	2,243	1.27%
Native Hawaiian and Other Pacific Islander alone	81	0.05%
Some other race alone	209	0.12%
Two or more races	1,311	0.74%

According to the 2013 U.S. Census American Community Survey, the median income for a household<sup>23</sup> in the County was \$43,310, and the median income for a family<sup>24</sup> was \$47,116.<sup>25</sup> About 22.1 percent of the population lives below the poverty line, including 29.1 percent of those under age 18 and 17.7 percent of those age 65 or over.<sup>26</sup> Imperial County has the lowest per capita income, \$16,107, of any county in Southern California and is among the lowest five counties in the State.<sup>27</sup>

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<sup>20</sup> <http://www.co.imperial.ca.us/>

<sup>21</sup> U.S. Department of Commerce, <http://quickfacts.census.gov/qfd/states/06/06025.html>

<sup>22</sup> American Community Survey, [https://www.census.gov/acs/www/data\\_documentation/data\\_main/](https://www.census.gov/acs/www/data_documentation/data_main/)

<sup>23</sup> A household consists of all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household. The count of households excludes group quarters. Two major categories of households are "family" and "nonfamily" (U.S. Census)

<sup>24</sup> A family is a group of two people or more (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such people (including related subfamily members) are considered as members of one family. The number of families is equal to the number of family households. However, the count of family members differs from the count of family household members because family household members include any non-relatives living in the household (U.S. Census)

<sup>25</sup> American Community Survey, [https://www.census.gov/acs/www/data\\_documentation/data\\_main/](https://www.census.gov/acs/www/data_documentation/data_main/)

<sup>26</sup> American Community Survey, [https://www.census.gov/acs/www/data\\_documentation/data\\_main/](https://www.census.gov/acs/www/data_documentation/data_main/)

<sup>27</sup> American Community Survey, [https://www.census.gov/acs/www/data\\_documentation/data\\_main/](https://www.census.gov/acs/www/data_documentation/data_main/)

## LAND USE

According to the Imperial County General Plan, the County will continue for the foreseeable future to be a predominantly agricultural area. In 2003, a significant increase in urbanization began to show. Approximately one-fifth of the nearly three million acres of the County is irrigated for agricultural purposes. Approximately fifty percent of County lands are largely undeveloped and under federal ownership. The developed area where the County's incorporated cities, unincorporated communities, and supporting facilities are situated comprises less than one percent of the land.

With approximately 1,460,000 acres<sup>28</sup>, the federal government owns approximately one-half of all land in the County, primarily the Department of the Interior Bureau of Land Management (BLM) property and U.S. Military lands. BLM allows open recreational uses in several areas. Federal and State sites include National Wildlife Refuges at the south end of the Salton Sea, and the Salton State Recreation Area. The U.S. Border Patrol is located at the POEs, with a Border Patrol inspection station also operating on SR-111 north of Bombay Beach. The County has three POEs between the U.S. and Mexico. The Calexico West POE is the oldest and most heavily used passenger port. The Gateway of America, or Calexico East POE, is the newest port, built in 1995, with the primary purpose as a commercial truck port. It also serves to relieve the Calexico West passenger congestion. Both Calexico West and Calexico East POEs are proposed for capacity expansions. Congress has appropriated \$23.8 million to date for the Calexico West POE expansion project. President Obama has also included a proposed allocation of over \$98 million in the FY2015 budget for the Calexico West POE project. Currently, no public funding allocation has been indentified for the Calexico East POE expansion project.

The Caltrans District 11 Planning Division, Development Review/Intergovernmental Review (IGR) Branch, reviews proposed land development projects to assess any potential impacts to the State Highway System. Imperial County has in recent years processed numerous renewable energy projects, including wind, solar, hydro, geothermal, and other renewable energy sources. Renewable Energy projects may have potential impacts on State facilities, such as traffic impacts, access, and utility encroachments.

The 2008 Central Imperial County Traffic Impact Fee Study has identified three additional interchange projects at Harris Road, Schartz Road, and the proposed future extension of Panno Road eastward to SR-111. According to the Imperial County Code of Ordinances, the County is collecting traffic impact fees to fund these interchanges. Currently, these projects are not incorporated in SCAG's Regional Transportation Plan, the Imperial County Transportation Plan Highway Element, or in this TCR. Any work conducted in Caltrans Right-of-Way by local agencies or developers requires an encroachment permit, a feasibility study, and must meet Caltrans standards, including interchange spacing.

There are two commercial projects that could potentially impact SR-111, the Calexico "Gran Plaza Outlets" (PM 0.02) commercial development under construction, with phase 1 of the project open now, and "Calexico Place" (PM 3.23), a proposed casino by the Manzanita Band of Kumeyaay Indians<sup>29</sup>. Among the proposed mitigation measures for these projects are:

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<sup>28</sup> Imperial County General Plan.

<sup>29</sup> In 2006, the Manzanita Band of Kumeyaay Nation signed a Memorandum of Understanding with the City of Calexico on land proposed to be taken into trust for gaming purposes within the City of Calexico municipal boundaries.

- The installation of a traffic signal, two through lanes, and a left turn lane for each direction from Second Street (POE) to SR-111.
- Intersection improvements at SR-111 and Jasper Road.

## **SYSTEM CHARACTERISTICS**

SR-111 begins south of Second Street (north of International Border) and continues traveling north with two travel lanes in each direction. SR-98 (an east-west route) with heavy truck traffic intersects SR-111 through the City of Calexico. Segments 1, 2, 3, 4, and 5 of SR-111 are considered to be the “backbone” route of Imperial County as it connects the three largest cities in the county and acts as a major goods movement route, particularly for agricultural products and cross-border goods and services.

There is a route break near the City of Brawley, the Brawley Bypass (SR-78). The Bypass is an eight-mile, four-lane divided expressway from SR-86 north of the City of Brawley to 1.5 miles south of the eastern junction of SR-111 and SR-78 in Imperial County. Major features include bridges at the New River and Union Pacific Railroad crossings, an interchange, and accommodation for the future Brawley Airport expansion. The Brawley Bypass provides a connection between SR-111 and SR-86, which extends from the U.S.-Mexico border to Riverside County.

After the route break SR-111 travels north with one travel lane in each direction to the Riverside County line. The SR-111 terminus is at I-10 (PM RIV 37.9) north of the City of Palm Springs in Caltrans District 8. Parallel routes include SR-86, which begins at the SR-111 interchange (PM R004.741) near the International Border, extends northward along the western shore of the Salton Sea and terminates in the Coachella Valley. SR-115 is located east of SR-111 from I-8 to the City of Calipatria (PM 032.513). SR-111 also intersects with SR-98 in Calexico, I-8 east of El Centro, and SR-78 in Brawley.

**Table 5: SR-111 System Characteristics**

Segment #		1	2, 3, 4, 5	6, 7, 8
<b>Existing Facility</b>				
Facility Type		C <sup>30</sup>	E <sup>31</sup>	C
General Purpose Lanes		4	4	2 <sup>32</sup>
Lane Miles		3.9	83.6	83.4
Centerline Miles		0.9	20.9	41.7
Median Characteristics		Undivided/ Paved	Divided	Undivided
Passing Lanes		0	0	0
Truck Climbing Lanes		0	0	0
Distressed Pavement <sup>33</sup>		10%	0% <sup>34</sup>	6-10%
<b>Concept Facility<sup>35</sup></b>				
Facility Type		C	F <sup>36</sup> /E <sup>37</sup>	C
General Purpose Lanes		4	6/4 <sup>38</sup>	4/2 <sup>39</sup>
Lane Miles		3.9	96.6	101.3
Centerline Miles		.9	20.9	41.7
Passing Lanes		0	0	0
Truck Climbing Lanes		0	0	0
<b>Post 25 Year Facility</b>				
Facility Type		C	F	C
General Purpose Lanes		4	6 <sup>40</sup>	4 <sup>41</sup>
Lane Miles		3.9	125.4	166.8
Centerline Miles		.9	20.9	41.7
<b>TMS Elements<sup>42</sup></b>				
TMS Elements (BY) <sup>43</sup>		Signalized intersections	Signalized intersections	Signalized intersections
TMS Elements (HY) <sup>44</sup>		Signalized intersections		Signalized intersections

<sup>30</sup> C (Conventional Highway).

<sup>31</sup> E (Expressway).

<sup>32</sup> In Calipatria from Bonita Street (PM 032.360) to Barbara Street (PM 032.667) SR-111 has four general purpose lanes.

<sup>33</sup> 2009, D-11Traffic Operations.

<sup>34</sup> 28% pavement on segment 5 (old State Route alignment through the City of Brawley) was classified as under distress in 2009. This segment was relinquished to the City of Brawley in November of 2012.

<sup>35</sup> Concept Facility in 2035.

<sup>36</sup> F (Freeway).

<sup>37</sup> Segments 2 and 3 Freeway; segments 4 and 5 Expressway.

<sup>38</sup> SCAG 2012 RTP (Financially Constrained Projects) segments 2 and 3: From SR-98 to I -8 -Widen and improve to six lane freeway with interchanges at Heber Road, McCabe Road, and Jasper Road and an overpass at Chick Road.

<sup>39</sup> SCAG 2012 RTP, segment 6 (upgrade to four lane conventional highway - unconstrained project list).

<sup>40</sup> SCAG 2012 RTP (Unconstrained): In addition to improvements in segments 2 and 3, from I-8 to SR-78- Widen and improve to six-lane freeway.

<sup>41</sup> SCAG 2012 RTP (Unconstrained): From Shank Road to SR-115 and from Young road to Riverside County Line – Widen and improve to four-lane conventional highway.

<sup>42</sup> For an inventory of signalized intersections locations see Appendix C “SR-111 Signalized Intersections”.

<sup>43</sup> BY (Base Year, 2010).

<sup>44</sup> HY (Horizon Year, 2035).

## **CALIFORNIA-BAJA CALIFORNIA INTERNATIONAL BORDER**

The County of Imperial has three international land POEs with Mexico: Calexico West/Mexicali, Calexico East/Mexicali II, and Andrade/Algodones. The Calexico West POE is within the City of Calexico, while the other two POEs are within unincorporated area of the County. Two of the ports provide entry to Mexicali, Mexico. Over four million vehicles crossed the U.S.-Mexico international border northbound through the Calexico West POE in 2012, resulting in substantial vehicle congestion and foot traffic in downtown Calexico and on SR-111 (Imperial Avenue). A large majority of personal trips are for work, shopping, social, or recreational purposes, and generate significant revenues on both sides of the border. Though most of these trips were made in automobiles, many trips are also made by pedestrians and bicyclists. A significant number of the trips are made regularly for commuting to jobs on both sides of the border. Collectively, these three entries average about 6 million pedestrian crossing trips per year. The vast majority of trips were made at Calexico West POE (4.8 million); although close to 320,000 trips were made at Calexico East POE and close to 900,000 trips at Andrade in 2012<sup>45</sup>.

The U.S. General Services Administration (GSA) is proposing to reconfigure and expand the existing POE in downtown Calexico. This facility is the most important POE in Imperial County with significant vehicle and pedestrian activity. Increasing delays at the POE have constrained the growth of both Imperial County and Mexico and result in significant foregone economic opportunities in terms of business output, jobs, and tax revenue. If delays at the International Border keep growing, economic foregone economic opportunities on both sides of the border will more than double by 2016 (for additional information on the U.S.-Mexico International Border please refer to Appendix B, page 48).

Caltrans is funding and has partnered with the Imperial County Transportation Commission (ICTC) and the San Diego Association of Governments (SANDAG) to develop a *Pedestrian and Bicycle Study for the California/Mexico POEs*. The Study will focus on the U.S.-Mexico border region, specifically California's six POEs. It will describe existing conditions for pedestrians and bicyclists at California's POEs, and will identify opportunities to improve conditions for non-motorized users and propose future infrastructure improvements based on current Caltrans policies, such as Complete Streets.

### **FREIGHT**

Imperial County has a very well developed highway and roadway network for both vehicular travel and freight movement by tractor-trailer trucks (see Map 2). The system carries over 90 percent of the goods that move in and out of the County. Recent population growth and increases in foreign trade activity have stressed the system, and future infrastructure improvements will be required in order to keep up with the future projected demand.

The major north-south corridors that handle north-south goods movements in Imperial County are SR-7 from the Calexico East POE, SR-111, SR-86, and Forrester Road. The two major east-west corridors that also contribute to the handling of north-south goods movement in Imperial County are I-8, which originates in San Diego County to the west and continues into Arizona to the east, and SR-98, which parallels I-8 for a good portion of the County.

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<sup>45</sup> U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, based on data from the Department of Homeland Security, U.S. Customs and Border Protection, Office of Field Operations.

The Calexico East POE (see Figure 5) is the only POE in Imperial County that processes freight. The Calexico East POE serves nearly all of the international truck traffic crossings in Imperial County with a total trade value of over \$13 billion in 2013. Freight movement is not allowed at the Calexico West POE. The Andrade POE does not carry significant volumes of truck traffic and mostly serves local trips. SR-7 serves the Calexico East/Mexicali II POE. The POE connects Imperial County, California and Mexicali, Baja California. The POE is a multimodal facility that serves nearly all of the international truck traffic crossings in Imperial County. The POE has a full range of cargo-processing functions, including inspections, entry, collections, and verification. In 2012, the Calexico East POE handled 322,424 trucks<sup>46</sup>.

According to the Imperial County “2007 Transportation Plan Highway Element” some of the more noticeable gaps in the system are the following:

- Lack of direct freeway connections to rail yards/inter-modal facilities.
- Lack of dedicated truck lanes, passing lanes, and truck bypass routes.
- High truck traffic through urban areas including Brawley and Westmorland.

To alleviate the gaps in the transportation system, the Brawley Bypass was recently completed (2012). The bypass has relieved area traffic congestion and improved the flow of international goods between California and Mexico by providing an alternate route for commercial trucks and motorists around Brawley. In addition, future plans exist to widen Forrester Road and construct a Bypass to the City of Westmorland.

Imperial County is served by rail connections from Mexico, Riverside County, and Arizona (see Table 6 and Map 2). San Diego County also has a rail connection to Imperial County that has not been in service since 1983 (Desert Line). Pacific Imperial Railroad Inc. (PIR), the operator of the Desert Line that serves the Tijuana-Tecate region of Baja Mexico and eastern San Diego County, has entered into a services agreement with JL Patterson & Associates Inc., an engineering and construction management firm, to inspect the railroad’s 57 bridges and 17 tunnels. After the inspections are completed, PIR could potentially begin reconstruction on the line to allow for transportation of freight from Maquiladoras<sup>47</sup> in Mexico.

There are warehouse facilities throughout the southern area of the City of Calexico not adjacent to the POE. There are also warehouse facilities in Imperial County's Calexico East Specific Plan Area surrounding the Calexico East POE. Trucks originating from and going to the Calexico area move goods between the Maquiladora industries located on both the U.S. and Mexican sides of the border.

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<sup>46</sup> U.S. Department of Transportation, *Research and Innovative Technology*, [http://transborder.bts.gov/programs/international/transborder/TBDR\\_BC/TBDR\\_BCQ.html](http://transborder.bts.gov/programs/international/transborder/TBDR_BC/TBDR_BCQ.html)

<sup>47</sup> Maquiladora is the Mexican name for manufacturing operations in a free trade zone (FTZ), where factories import material and equipment on a duty-free and tariff-free basis for assembly, processing, or manufacturing and then export the assembled, processed and/or manufactured products, sometimes back to the country of origin.

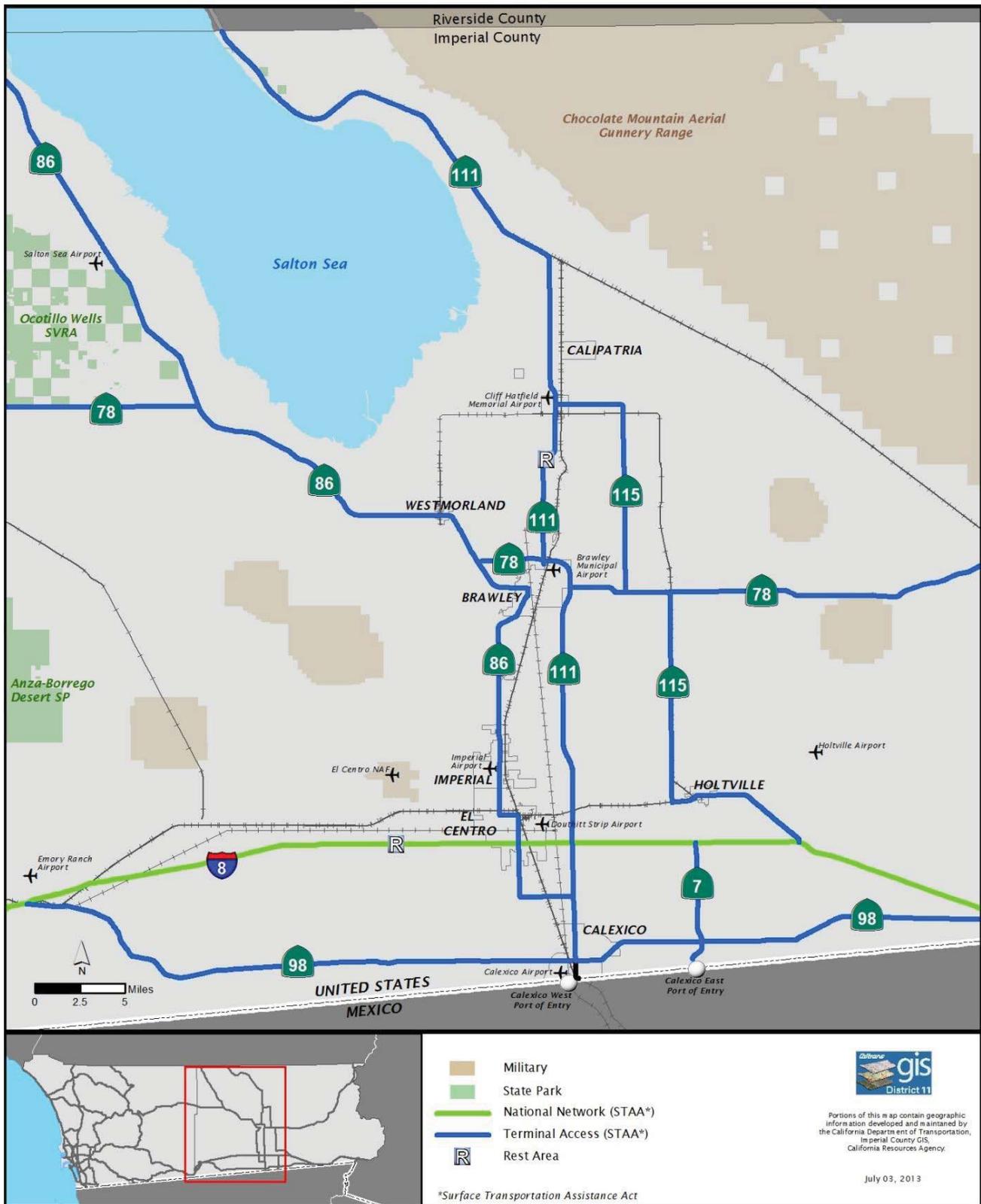
**Table 6: SR-111 Freight System**

Facility Type/Freight Generator	Location	Mode	Name	Major Commodity/ Industry	Comments/Issues
Land Port of Entry	Calexico	Rail, <sup>48</sup> Auto, Pedestrian	Calexico West POE	Agriculture	- Non-motorized users connectivity - Congestion - Border wait time delays -Lack of funding of POE expansion project
Land Port of Entry	Calexico	Truck, Auto, Pedestrian	Calexico East POE	Electronics, Manufactured Products, Agriculture	- Non-motorized users connectivity - Congestion - Border wait time delays -Lack of funding of POE expansion project
Land Port of Entry	Andrade	Auto, Pedestrian	Andrade POE	Rural Port with high volume of pedestrian traffic	- Non-motorized users connectivity
Intermodal Freight Facility	Imperial County	Truck, Rail	Mesquite Regional Landfill	Waste	The Mesquite Regional Landfill will be Southern California's first operating landfill that is permitted to receive waste by rail (project)
Rail Yard	Plaster City	Rail	Plaster City Rail Yard	Construction products	
Rail Line	Imperial County	Rail	Union Pacific Railroad (UPRR) (Class I) <sup>49</sup>	Commodity, bulk, and mixed cargo	
Rail Line	Imperial County	Rail	Pacific Imperial Railroad (PIR) (Short Line)	Construction products, Barley	- Upgrades to desert line. - Restore service between San Diego and Imperial Counties.
Air Cargo Airport	Calexico	Airplane	Calexico International Airport (CXL)	Corporate Business	CXL facilitates access of corporate businesses throughout the U.S. to the Maquiladora Industry in Mexicali, Mexico.
Highway	Imperial County	Truck	SR-111 (Terminal Access Route to the National Network)	Electronics, Manufactured Goods, Agriculture	-Bottleneck at Calexico West POE. -Bottleneck at SR-98 Interchange.
Freight Generator	Imperial County	Truck	Imperial County	Agriculture	One of the most productive farming regions in California with an annual crop production of over \$1 billion. Agriculture is the largest industry in the Imperial Valley and accounts for 48% of all employment.

<sup>48</sup> Rail tracks are physically located in the Calexico West POE. However, rail data information is reported for the Calexico East POE.

<sup>49</sup> UPRR serves the Imperial Valley region near Plaster City, moving commodity, bulk, and mixed cargo eastward to Chicago, Kansas City, New Orleans and St. Louis on the former Southern Pacific *Sunset Route*, a primary California freight rail corridor.

# State Route 111 Truck Networks



Map 2: SR-111 Route Truck Network

## **MULTIMODAL TRANSPORTATION**

Caltrans “Complete Streets” policy (Deputy Directive 64-R1) guides Caltrans to provide for travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the State Highway System (SHS). Caltrans views all transportation improvements (new and retrofit) as opportunities to improve safety, access, and mobility for all travelers and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system. Caltrans needs to integrate multimodal projects in balance with community goals, plans, and values. Caltrans addresses the mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding. Bicycle, pedestrian, and transit travel are facilitated by creating “Complete Streets” starting with system planning and continuing through project delivery, maintenance, and operations.

A “Complete Street” is defined as a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit riders, and motorists appropriate to the function and context of the facility.

Implementing “Complete Streets” supports local agencies’ efforts required by the California Complete Streets Act of 2008 (Assembly Bill 1358). The “Complete Streets” policy supports the goal of reducing greenhouse gas emissions, set out in the California Global Warming Solutions Act of 2006 (Assembly Bill 32) and Senate Bill 375, which further require development of Sustainable Communities Strategies (SCS). It also demonstrates how the future land use development pattern and the transportation network, policies, and programs in the region can work together to achieve the greenhouse gas (GHG) emission reduction targets for cars and light trucks established by the California Air Resources Board (ARB). The SCS integrates land use, housing, and transportation planning to provide a regional policy foundation that local governments may build upon to create a more sustainable Southern California.

## **BICYCLE FACILITIES**<sup>50</sup>

According to the Imperial County Bicycle Master Plan, the existing bicycle network in Imperial County is fragmented. However, opportunities are ample for strengthening these crucial elements of the bicycle system. The County of Imperial is predominantly an agricultural community consisting of flat terrain. Dry and temperate weather conditions prevail throughout the year, with the exception of the extremely hot summer months of May through September. The County transportation network offers miles of paved roadways with relatively level terrain, limited cross traffic, low traffic volumes, and wide expanses of open land that are ideal for recreational bicycling.

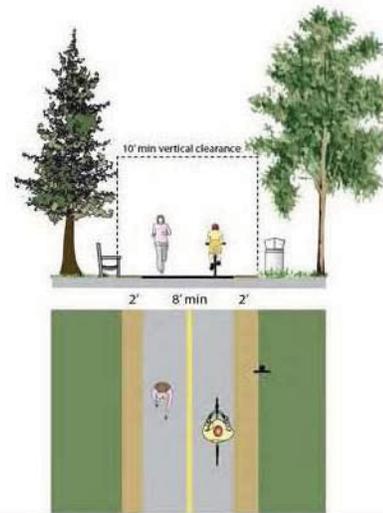
The 2003 Imperial County Bicycle Master Plan recommended the implementation of a 252-mile system of bicycle lanes, routes, and pathways that link schools, shopping, employment centers, and existing and planned residential developments. Providing designated routes for cycling strengthens the network and also serves as recognition of a growing cycling community by increasing motorist awareness of bicyclists and the legal requirement to share the roadway with bicycle riders.

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<sup>50</sup> For bicycle routes maps, please see appendix D.

### Class I – Bike Path

Bike paths are bikeways that are physically separated from vehicular traffic. Also termed shared-use paths, bike paths accommodate bicycle, pedestrian, and other non-motorized travel. Paths can be constructed in roadway right-of-way or independent right-of-way. Bike paths provide critical connections in the region where roadways are absent or are not conducive to bicycle travel.



### Class II - Bike Lanes

Bike lanes are defined by pavement markings and signage used to allocate a portion of a roadway for exclusive or preferential bicycle travel. Within the regional corridor system, bike lanes should be enhanced with treatments that improve safety and connectivity by addressing site-specific issues. Such treatments include innovative signage, intersection treatments, and bicycle loop detectors.



### Class III - Bike Routes

Bike routes are located on shared roadways that accommodate vehicles and bicycles in the same travel lane. Established by signs, bike routes provide continuity to other bike facilities or designate preferred routes through corridors with high demand. Within the regional corridor system, bike routes should be enhanced with treatments that improve safety and connectivity by addressing site-specific issues.



Graphic 1: Regional Corridor Classification System

The County of Imperial has a number of state-maintained roadways that provide vital transportation connections to communities and neighboring regions. These connections are as critical for bicyclists as they are for automobile drivers because these State routes often provide the most direct and logical connections between destinations. The Imperial County Bicycle Master Plan Update (2011) includes bikeway recommendations for a total of nearly 103 miles of shoulder Class III facilities on State Highways (see appendix D). Caltrans will have to coordinate with Imperial County on the development of these facilities. Class III bikeways on highways that generally have high traffic volume and speeds should be designed with a minimum of a six-foot shoulder to give bicyclists sufficient room to comfortably travel.

**Table 7: Recommended Class III Bikeways in the Imperial County Bicycle Master Plan on State Route 111**

Location	From	To	Mileage
State Route 111	Evan Hewes Highway	Calexico city limits	6.8
State Route 111	Rutherford Road	Brawley city limits	3.0
State Route 111	Calipatria city limits	Rutherford Road	5.3
State Route 111	Calipatria city limits	Bombay Beach Community	24.7

The Bicycle Master Plan also proposes an Imperial Valley Bikeway system comprised of 12 bicycle routes designed to serve various user groups, provide equitable access to all areas of the County, and offer loop systems for recreational riders that wish to cycle long distances and return to the point of origin.

**Table 8: Recommended Bikeway Routes where SR-111 is Part of the System**

Route Number	Name	Description	Mileage
Route 6	Weist Lake Park Loop	Provides bicycle lanes to Weist Park, a county park offering areas for picnicking and a lake for fishing. The Route connects to six schools and employment centers in Brawley.	12.3
Route 7	Sinclair – Gentry – Rutherford Road – State Route 111	The route would provide connections to Westmorland Union Elementary School, Fremont Elementary School, and Calipatria High School, and employment centers in Westmorland and Calipatria.	29
Route 11	State Route 111 from Calexico to Calipatria	This route will provide a direct link from Calexico to Calipatria. Class III shoulders are proposed on State Hwy 111 and a connection to Class II bike lanes on Old Route 111 is proposed between Evan Hewes Highway and the City of Brawley. The total distance of this route is 8.5 miles. The Plan also suggests that the Class III facilities continue along State Highway 111 from Calipatria to the community of Bombay Beach on the eastern side of the Salton Sea, for a distance of 25 miles.	8.5 and 25

The Southern California Association of Governments (SCAG) also recommends a class III bikeway along SR-111 from Riverside County to the City of Calipatria in their Regional Transportation Plan/Sustainable Communities Strategy (2012-2035).

The City of Calexico 2002 Bicycle Master Plan proposes two parallel bicycle facilities for SR-111:

- Frontage Road West/Emerson Avenue- Class II - 2.05 miles - From the northern city limits to Second Street. This Class II bicycle lane would serve as the north-south route from Cole Road to Birch Street to avoid heavy volumes on Imperial Avenue (SR-111). The corridor provides access through the City. At Birch Street (SR-98), bicyclists would continue along Emerson Avenue to downtown.
- Frontage Road East- Class II- 2.09 miles – From the northern city limits to Birch Street. This Class II bicycle lane would serve as the alternative to bicycling along Imperial Avenue (SR-111). The bike lane would be located along the Frontage Road just north of Cole Road to Birch Street. This bicycle lane offers a unique opportunity in the City to connect to major commercial areas located along Imperial Avenue (SR-111) while avoiding much of the congestion along Imperial Avenue.

The City of Calipatria Bicycle Master Plan (2002) identifies Sorenson Avenue (SR-111) as part of their bicycle system as a Class II lane that will link Young Avenue and the Class I Bike Path along Yuma Street, crossing Main Street (SR-115), and continuing to the Class II Bicycle Route of Imperial County (total length is 0.4 miles).

## **PEDESTRIAN FACILITIES**

Pedestrians represent a wide range of the population, including children walking to and from school, teens visiting friends, adults on errands, and people who walk for recreation or exercise. Pedestrians also include people with disabilities using walkers, wheelchairs or other assistance devices, as well as transit users who walk between their destinations and transit stops.

ICTC is studying the feasibility and potential site locations for an Intermodal Transportation Center in the City of Calexico next to the Calexico West POE. The Intermodal Transportation Center will facilitate the movement of non-motorized travelers such as bicyclists, transit users, people with disabilities, and pedestrians: those crossing to and from Mexico; those being dropped off and picked up; and those using transportation services to nearby cities in the Imperial Valley.

According to the 2035 General Plan for the City of Calipatria, the majority of the roads in the city do not have sidewalks. The City of Calipatria is currently working on a pedestrian project funded by Caltrans District 11 Local Assistance on Sorenson Avenue (SR-111), between Delta Street and Date Street. This project includes the construction of sidewalks that are also in compliance with the 1990 Americans with Disabilities Act (ADA).

Among existing pedestrian needs that are proposed to be addressed particularly in the Cities of Calexico and Calipatria are:

- Continuous sidewalks
- Marked crosswalks on cross streets
- Reasonable pedestrian crossing distances
- Clearly delineated vehicle travel lanes
- Appropriate signage informing vehicle drivers
- Shaded walkways
- Bus stop amenities – shelter, bench, trash can, etc.
- Appropriate striping to delineate bus drop-off/pick-up area
- Accessible pedestrian signals at signalized crossings
- ADA Improvements

**Table 9: SR-111 Pedestrian Facilities**

Segment	Post mile	Location Description	Pedestrian Access Prohibited	Sidewalk Present	Facility Description	Alternative Facility
1	R000.202 to R001.183	Imperial Avenue, City of Calexico	No	Yes	Main Street, Commercial	Emerson and Paulin Avenues
2, 3, 4, 5	R001.183 to 022.139	Imperial Valley	Yes	No	Expressway	
6, 7	023.671 to 042.470	Sorenson Avenue, City of Calipatria	No	Yes	Conventional Highway/Main Street in the City of Calipatria Bonita Street (PM032.360) to Barbara Street (PM 032.667)	Park and Imperial Avenues
8	042.470 to 065.395		No	No	Conventional Highway	

**TRANSIT FACILITIES**

Overall, the Imperial County Transportation Commission (ICTC) provides fixed route services throughout the county. Access to jobs outside of weekday, daytime hours is limited. By January 2014, ICTC plans to increase service during peak periods between Calexico and El Centro to 35 minute headways. Loading is not an issue on most routes, where excess capacity is available. On a few routes, primarily those serving Calexico, buses can become very crowded.

Both fixed route and demand response services are provided throughout much of the county, providing transportation for the general public, including seniors and disabled people. Local, circulator, express, and deviated fixed route services are operated between points throughout the Imperial Valley under contract with ICTC by First Transit, Inc., and branded as Imperial Valley Transit (IVT). Demand responsive service (Dial-a-Ride) is subsidized by ICTC and operated by private services in Brawley, Calexico, El Centro, Imperial, and the West Shores area. Both the Brawley and West Shores Dial-a-Ride services are available to the general public, while the others are limited to senior/disabled passengers. ADA complementary paratransit service, branded IVT Access (formerly AIM Transit), is provided throughout the fixed route service area. IVT Access is also available to the general public for an added fee when space allows. Additionally, certain disabled passengers are eligible for Med-Express, which operates four days per week between pickup points in Imperial County and medical facilities in San Diego County.

Currently, several different services operate along SR-111 between Calexico and Brawley, including IVC Express Routes 21 and 22 and Direct Route 40 as well as portions of several other routes. In the long-term, these services could be incorporated into one limited stop service in the SR-111 corridor (i.e., Fast Route 51), simplifying the service pattern and de-segmenting the markets for these routes (i.e., a passenger traveling between Calexico and Brawley would not be limited to Direct Route 40 trips, but would be able to utilize any trip traveling in the corridor). There could be several options for service: 1) some trips could be extended to Niland, providing more rapid service throughout the entire north-south spine, or 2) some trips (during the peak period) could continue to skip IVC, providing rapid service between Brawley and Calexico. Stops could include the Calexico Transfer Terminal, the proposed Manzanita Casino, IVC, and the Brawley Transfer Terminal. Timed transfers should be available with the circulators where possible. This feature would be most critical for the Purple Line at IVC, where passengers on Direct Route 40 could connect and reach downtown El Centro and Imperial.

IV Transit serves the border crossing in downtown Calexico, which serves as a significant ridership generator. Future opportunities may exist to improve the connection between IV Transit and transit operators across the international border, and to serve one or both of the other POEs as well.

An Intermodal Transit Center (ITC) next to the Calexico West POE is being proposed by ICTC and the City of Calexico. The ITC will facilitate the movement of pedestrians including those crossing to and from Mexico, those being dropped off and picked up, and those using transportation services to nearby cities in Imperial County. The ITC will provide service for public and private transit operators, taxis, and downtown shuttle services. Caltrans District 11 recently provided funds to the ICTC to study the feasibility of the ITC and identify proposed site locations in the downtown border area.

In fiscal year 2012-13 Caltrans awarded an Urban Transit Planning Studies grant to SCAG and ICTC to assess the feasibility of an inter-college shuttle service in the Imperial Valley. The proposed transit service would connect public college campuses in the cities of Calexico, Brawley, and Imperial. The study will identify gaps in service, determine necessary transit connections, and will result in a transit service implementation plan.

**Table 10: SR-111 Transit Facilities**

Segment	Mode and Collateral Facility	Name	Route End Points	Annual Ridership	Headway	Operating Period	Stations		Bikes Allowed on Transit
							Cities	Post Miles	
2	Traditional Bus	Imperial Valley Transit	Route 1 <sup>51</sup> - El Centro to Calexico	288,098	Long	Weekdays and Saturdays	El Centro (multiple stops), Heber, Calexico(multiple stops)	R002.211- R004.741	Yes
4, 5, 7	Traditional Bus	Imperial Valley Transit	Route 2 <sup>52</sup> – Niland to El Centro	178,806	Long	Weekdays and Saturdays	Niland, Calipatria, Westmorland, Brawley (multiple stops), Imperial, El Centro (multiple stops)	011.398- R012.874 and 032.513- 040.477	Yes
4, 5	Traditional Bus	Imperial Valley Transit	Route 3 <sup>53</sup> – Holtville to El Centro	14,695	Long	Weekdays and Saturdays	Holtville, El Centro (multiple stops)	009.100 - 011.638	Yes
1, 2, 3, 4, 5	Express Bus	Imperial Valley Transit	Route 21- Calexico to Imperial	41,303	Long	School days only	Imperial, Calexico (multiple stops)	R001.183- 011.638	Yes
4, 5, 7	Express Bus	Imperial Valley Transit	Route 22- Niland to Imperial	7,158	Long	School days only	Imperial, Brawley (multiple stops), Westmorland, Calipatria, Niland	011.398- R012.874 and 032.513- 040.477	Yes
1, 2, 3, 4, 5	Direct Bus	Imperial Valley Transit	31/32 <sup>54</sup> - Brawley to Calexico	29,533	Long	Weekdays peak time	Brawley, Calexico	000.479- 022.138	Yes
6, 7, 8	Traditional Bus	Imperial Valley Transit	51 N/S <sup>55</sup> - Brawley to Bombay Beach	353	Long	Thursday only	Brawley (multiple stops), Calipatria, Niland, Bombay Beach (multiple stops)	023.671- 057.625	Yes

<sup>51</sup> Old Route 100/150.

<sup>52</sup> Old Route 50/200.

<sup>53</sup> Old Route 300/350.

<sup>54</sup> Old Route 600/650.

<sup>55</sup> Old Route 500/550.

## **ENVIRONMENTAL CONSIDERATIONS**

The purpose of this environmental section is to conduct a high level identification of environmental factors that may need future analysis in the project development process. This information does not represent all possible environmental considerations that may exist within the area surrounding the route. The environmental factors have been categorized based on a scale of high-medium-low probability of environmental resource issues established by Caltrans staff. Environmental factors included in this section are as follows:

**Recreational and Protected Land (Section 4(f)):** SR-111 traverses numerous Park and Recreation facilities. These include the Salton Sea National Wildlife Refuge, the Imperial Wildlife Area- Wister Unit and Finney-Ramer Unit, as well as some small urban parks within the Cities of Calexico and Brawley.

**Farmlands:** Agriculture is the main commodity in Imperial County. Aside from the few urban areas along SR-111 a majority of the route contains farmlands, including lands designated as Prime Farmland, Farmlands of Statewide Importance, and of Local Importance. Conversion of prime farmland should be considered as these lands are developed and/or highway facilities are expanded. Imperial County filed non-renewal on all Williamson Act<sup>56</sup> contracts, effective January 2011, covering 117,246 acres; however, pursuant to GC Section 51246 the contracts remain in full force and effect until the contracts terminate. Any existing Williamson Act contracts along SR-111 would need to be considered during transportation planning efforts.

**Environmental Justice:** Significant minority and low income populations are located within close proximity of SR-111. Due to the agricultural nature of the surrounding area, seasonal agriculture workers can also be found within the area. Efforts should be made to include minority and low income populations during public outreach to allow for their participation in transportation planning efforts within the corridor (see Community Characteristics section above).

**Visual/Aesthetics:** The portion of the route from Bombay Beach to the Riverside County line is eligible to be listed as a Scenic Highway. Visual concerns would include keeping the rural nature of the existing communities, and insuring that the existing views to the east and west of the roadway are maintained. Within the cities of Brawley, Calipatria, and Calexico, it is important that future development keeps with the objectives of the existing local and county plans.

**Geology/Soils/Seismic:** All of Imperial County is bisected by active seismic faults that could generate significant earthquakes and other geologic activity. Specifically the San Andreas Fault is in close vicinity to SR-111 through all of Imperial County.

**Flood Plain:** Although SR-111 is located in a desert region, it is still subject to heavy rains which can cause flash flooding. The route crosses numerous canals and drainage ditches which could be subject

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<sup>56</sup> The Williamson Act (officially, the California Land Conservation Act of 1965) is a California law that provides relief of property tax to owners of farmland and open-space land in exchange for a ten-year agreement that the land will not be developed or otherwise converted to another use. The motivation for the Williamson Act is to promote voluntary land conservation, particularly farmland conservation. In 2010, the California State Senate and State Assembly sent to the Governor, for signing, Senate Bill 1142. This bill was created to provide a relief stream of funding for the Williamson Act.

to flooding during these rainstorms. SR-111 crosses the Alamo River which may also be subject to flooding during these rain events.

**Climate Change:** In California, transportation sources (including passenger cars, light duty trucks, other trucks, buses, and motorcycles) make up the largest source (second to electricity generation) of GHG emitting sources. The dominant GHG<sup>57</sup> emitted is CO<sub>2</sub><sup>58</sup>, mostly from fossil fuel combustion. Climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery.

**Waters and Wetlands:** SR-111 crosses a number of water bodies and washes that are considered wetlands and waters of the U.S. Any work within these areas would require permits from the California Department of Fish and Wildlife and possibly the Army Corps of Engineers and the Regional Water Control Board.

**Special Status Species:** Special status species within the SR-111 corridor include the federally listed (Endangered) Desert pupfish (*Cyprinodon macularius*) and Yuma clapper rail (*Rallus longirostris yumanensis*), and the State listed species of special concern are the Burrowing owl (*Athene cunicularia*), and the Mountain plover (*Charadrius montanus*). Migratory birds are commonly found in the agriculture fields that surround SR-111.

**Habitat Connectivity:** SR-111 runs primarily north to south bisecting desert habitat. The existing highway varies from two to four lanes which potentially limits wildlife movement. SR-111 runs adjacent to the Salton Sea, which is an important resource for migratory waterfowl.

**Air Quality Conformity:** Transportation conformity is required under the federal Clean Air Act (CAA) to ensure that federally supported highway and transit project activities conform to the purpose of the State Implementation Plan (SIP). Conformity to the purpose of the SIP means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant National Ambient Air Quality Standard (NAAQS). Conformity applies to non-attainment and maintenance areas for the following transportation-related criteria pollutants: Ozone (O<sub>3</sub>), Particulate Matter (PM<sub>2.5</sub> and PM<sub>10</sub>), Carbon Monoxide (CO), and Nitrogen Dioxide (NO<sub>2</sub>).

### **Ozone**

Imperial County attained the 1997 8-hour ozone standard of 0.08 ppm in 2008. However, the U.S. Environmental Protection Agency (EPA) has promulgated the 2008 ozone standard of 0.075 ppm. On May 21, 2012 the U.S. EPA classified Imperial County as Marginal Nonattainment with an attainment year of 2015. As of July 20, 2013 the 1997 ozone standard will be replaced with the 2008 ozone standard.

### **Particulate Matter (PM<sub>10</sub>)**

Imperial County is classified as Nonattainment/Serious for PM<sub>10</sub> as of August 3, 2004. The two reasons for PM<sub>10</sub> exceedances are transport from Mexicali, Mexico (especially in the Calexico area) and occasional high wind activity. The Maintenance Plan for PM<sub>10</sub> approval by the U.S. Environmental Protection Agency was published in the Federal Register on March 19, 2013.

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<sup>57</sup> GHG (Green House Gas).

<sup>58</sup> CO<sub>2</sub> (Carbon Dioxide).

### Fine Particulate Matter (PM<sub>2.5</sub>)

Imperial County is classified as attainment for PM<sub>2.5</sub> except for a small area of the county including Calexico which is classified as nonattainment for PM<sub>2.5</sub>. On July 8, 2010 the U.S. EPA published a limited approval and a limited disapproval of proposed controls of fine Particulate Matter (PM<sub>2.5</sub>). Highway sanctions, based on this limited disapproval, began on August 9, 2012. The Imperial County Air Pollution Control District (ICAPCD) adopted revisions to the disapproved Rules Nos. 800, 804, 805, and 806, to correct deficiencies identified in the limited disapproval action. The State (California Air Resources Board) submitted these revisions to the U.S. EPA on November 7, 2012. The Interim Final determination to stay the sanctions was published in the Federal Register on January 7, 2013. Following the review and comment period, the stay of the sanction was finalized effective May 22, 2013.

### Carbon Monoxide (CO) and Nitrogen Dioxide (NO<sub>2</sub>)

Imperial County is in attainment for CO and NO<sub>2</sub>.

**Table 11: SR-111 Environmental Considerations by Segment**

Segment	Section 4(f) Land	Coastal Zone	Farmland/ Timberland	Environmental Justice	Cultural Resources	Visual Aesthetics	Seismic/Geology/Soils/	Floodplain	Climate Change and Sea Level Rise Vulnerability	Hazardous Materials	Naturally Occurring Asbestos	Air Quality			Noise	Waters and Wetlands	Wild and Scenic Rivers	Special Status Species	Fish Passage	Habitat Connectivity																		
												Ozone	PM	CO																								
												2.5	10																									
1	Low	Not Applicable	High	Med	Low	Med	High	High	N/A	Low	Not Applicable	Non-Attainment	Non-Attainment (Partial County)	Non-Attainment	Unclassifiable/Attainment	Low	Med	Not Applicable	High	Not Applicable	Low																	
2	Med			Low																	Med	Low																
3																																						
4	Low																					Low																
5																						Med																
6	High																					Low																
7	Low																					Med																
8	High																					Low																

## CORRIDOR PERFORMANCE

Corridor performance of SR-111 varies greatly by segment. At the south end of the route, in the City of Calexico (segment 1), SR-111 (Imperial Avenue) is a four-lane conventional highway that serves as a main street, connecting Mexico through the Calexico West POE and the rest of the County. All traffic that travels north to I-8, or south into Mexico, travels on this roadway. Imperial Avenue (segment 1) is the primary north/south arterial. The roadway basically divides the City in half. The traffic is so substantial that Imperial Avenue (within the City limits south of Birch Street) is usually congested with not only through traffic, but also with north/south local traffic, and automobiles that are trying to get from one side of town to the other. Having only two traffic signals on this portion of the roadway contributes greatly to the congestion. Many four-way stop signs also contribute to constant stop and go traffic, both heading into and out of Mexico. To ease this situation closest to the border, a raised median was built between Second Street and Fifth Street, thus eliminating cross traffic at Third and Fourth Streets. The stop signs at Third and Fourth Streets were removed for north/south traffic. Traffic control personnel assist with traffic flow through this area during peak traffic times. The POE primarily serves commuters and consumers that live south of the International Border who cross to California to work and shop.

Segment 1 has a failing (F) Level of Service (LOS) and a southbound bottleneck from 2<sup>nd</sup> Street to SR-98, with typical durations of the peak period from three to five hours. The segment lacks the capacity to manage the local high traffic volumes and the traffic heading primarily to the POE in the afternoons. In this area, SR-111 is very constrained and does not have sufficient Right-of-Way for expansion. Based on the expected growth in Annual Average Daily Traffic (AADT), insufficient Right-of-Way, and the lack of planned highway capacity increasing projects, congestion conditions can worsen in the foreseeable future. However, the expansion of the Calexico West POE and the expected border traffic diversion from SR-111 to Cesar Chavez Boulevard could significantly improve traffic conditions on this segment.

Traffic conditions improve north of SR-98. Current LOS for the rest of the corridor segments ranges between LOS B and LOS C. Future forecasting (2035) LOS for these segments varies if proposed capacity increasing projects from the Imperial County 2007 Transportation Plan Highway Element are considered. This is particularly true north of Brawley (segments 6, 7, and 8). For example, adding two lanes in segment 6 can vary LOS of this segment from LOS D (without improvements) to LOS A (with improvements).

AADT data varies significantly between segment 5 and segment 6 due to the 1.5 mile route break (see Map 3). North of segment 5 most traffic travels along SR-78 and SR-86 corridors. AADT growth rates vary significantly by segment from 2.31% (segment 3) to 8.68% (segment 8). Segment 6 AADT growth rate can be associated with its connection to the Brawley Bypass (SR-78). The AADT growth rate at the north end of the corridor (segment 8) is influenced by the growth and development in neighboring Riverside County.

As part of the International Border Trade Corridor system, the NAFTA-NET transportation network, and the Intermodal Corridors of Economic Significance, SR-111 is the primary carrier of trucks from the International Border crossing at Calexico via SR-7 and SR-98 on to the Inland Empire freight rail yards, the Los Angeles/Long Beach Ports, and other California locations. Trucks as a percentage of AADT in the corridor range from 4.8% in the City of Calexico to 21.1% in the City of Brawley. Trucks with five or

more axles account for more than half of all truck traffic on the Brawley Bypass, as well as north of the City of Brawley (in segments 6, 7, and 8). Efforts to keep SR-111 operating efficiently are necessary to contribute to the flow of goods and services in the corridor.



**Map 3:** The SR-111 old alignment is shown in orange (now relinquished to the City of Brawley); the SR-78 new alignment (new route break) is shown in green. The red segment (old route break) was the SR-78 old alignment (now also relinquished to the City of Brawley). Map 3 also shows the Base Year (2010) and the Horizon Year (2035) Annual Average Daily Traffic (AADT) for selected key points in the area.

**Table 12: SR-111 Corridor Performance**

Segment #	1	2	3	4	5	6	7	8
<b>Basic System Operations</b>								
<b>AADT (BY<sup>59</sup>) 2010</b>	26,500	27,000	29,500	15,800	10,200	5,900	5,400	2,650
<b>AADT (HY<sup>60</sup>) 2035</b>	45,000	47,000	46,500	32,000	23,000	13,700	8,500	8,400
<b>AADT: Growth Rate/Year</b>	2.79%	2.96%	2.31%	4.10%	5.02%	5.29%	2.30%	8.68%
<b>LOS Method</b>	Traffic Study	HCM <sup>61</sup>	HCM	HCM	HCM	HCM	HCM	HCM
<b>LOS (BY) 2010</b>	F <sup>62</sup>	B	B	B	B	C	C	B
<b>LOS (HY) 2035 With no RTP Improvements</b>	F	C	C	B	B	D	C	C
<b>LOS (HY) 2035 With RTP Improvements</b>	D <sup>63</sup>	B	B	A	A	A	A	A
<b>VMT (BY) 2010</b>	31,800	94,500	88,500	84,688	92,412	51,920	54,000	60,685
<b>VMT (HY) 2035</b>	54,000	164,500	139,500	171,520	208,380	120,560	85,000	192,360
<b>Vehicle Occupancy Rate (BY)</b>	No Data Available							
<b>Vehicle Occupancy Rate (HY)</b>	No Data Available							
<b>Truck Traffic</b>								
<b>Total Average Annual Daily Truck Traffic (AADTT) (BY)</b>	1,392	2,480	2,100		2,356	1,097	821	791
<b>Total Average Annual Daily Truck Traffic (AADTT) (HY)</b>	2,160	3,760	3,255		3,100	2,890	1,368	1,546
<b>Total Trucks (% of AADT) (BY)</b>	4.8%	8%	7%		12.4%	21.1%	16.1%	18.4%
<b>Total Trucks (% of AADT)(HY)<sup>64</sup></b>	4.8%	8%	7%		12.4%	21.1%	16.1%	18.4%
<b>5+ Axle Average Annual Daily Truck Traffic (AADTT)(BY)</b>	278	816	578		990	626	412	397
<b>5+ Axle Average Annual Daily Truck Traffic (AADTT)(HY)</b>	No Data Available	No Data Available	No Data Available		No Data Available	No Data Available	No Data Available	No Data Available
<b>5+ Axle Trucks (as % of AADT)(BY)</b>	20%	32.9%	27.5%		42%	57.1%	50.2%	50.2%
<b>5+ Axle Trucks (as % of AADT)(HY)</b>	No Data Available	No Data Available	No Data Available		No Data Available	No Data Available	No Data Available	No Data Available

<sup>59</sup> BY: Base Year (2010).

<sup>60</sup> HY: Horizon Year (2035).

<sup>61</sup> HCM: Highway Capacity Manual.

<sup>62</sup> The data was used from the Calexico West Land POE Border Station Expansion Traffic Impact Study (2009).

<sup>63</sup> LOS analysis takes into consideration traffic diversion to Cesar Chavez Boulevard due after the expansion of the Calexico West POE.

<sup>64</sup> For future truck volumes (2035), 2010 truck percentages were used.

Segment #	1	2	3	4	5	6	7	8
<b>Bottlenecks</b>								
<b>Bottleneck Existing</b>	Yes	No	No	No	No	No	No	No
<b>Bottleneck Location</b>	From 2 <sup>nd</sup> Street to SR-98	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
<b>Bottleneck Queue (length)</b>	0.9 miles	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
<b>Bottleneck Causality</b>	Capacity and traffic operation of the facility	N/A	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
<b>Peak Hour Traffic Data</b>								
<b>Peak Period Length (hours)</b>	5	3	3	No Data Available	No Data Available	No Data Available	No Data Available	1
<b>Peak Hour Direction</b>	SB	SB	SB	No Data Available	No Data Available	No Data Available	No Data Available	NB
<b>Peak Hour Time of Day</b>	2:00-7:00 pm	3:00-4:00 pm	4:00-5:00 pm	No Data Available	No Data Available	No Data Available	No Data Available	4:00-5:00 pm
<b>Peak Hour Directional Split (BY) 2010</b>	56.44% (AM)/ 66.92% (PM)	55.75% (AM)/ 52.55% (PM)	64.12% (AM)/ 62.04% (PM)	No Data Available	No Data Available	No Data Available	No Data Available	58.59% (AM)/ 55.81% (PM)
<b>Peak Hour Directional Split (HY) 2035</b>	57%	57%	57%	55%	56%	57%	56%	55%
<b>Peak Hour VMT (BY)</b>	1,362	3,647	4,188	10,720	13,936	6,688	7,800	1,648
<b>Peak Hour VMT (HY)</b>	4,320	13,300	11,100	9,513	16,308	9,592	6,600	13,740
<b>Peak Hour V/C (BY)</b>	0.3758	0.3450	0.4622	.3311	0.1738	.02714	.02785	0.0460
<b>Peak Hour V/C (HY)</b>	No Data available	No Data available	No Data available	No Data available	No Data available	No Data available	No Data available	No Data available
<b>Peak Hour Avg. Speed (mph)(BY)</b>	30	65	65	65	65	65	65	65
<b>Peak Hour Avg. Speed (mph)(HY)</b>	No Data available	No Data available	No Data available	No Data available	No Data available	No Data available	No Data available	No Data available

# CORRIDOR CONCEPT

## CONCEPT RATIONALE

SR-111 is a key transportation corridor in Imperial County that accommodates anticipated local traffic and cross-border travel growth, facilitating the movement of goods, services, and people between California and Mexico. Equally important, SR-111 serves as an urban arterial/main street for the Cities of Calexico and Calipatria providing safety, access, and mobility for all travelers, bicyclists, pedestrians, and transit transportation.

To achieve this concept, in addition to planned capital capacity increasing projects, system operations and management concepts need to be further developed for the corridor. Among the projects and strategies that need to be included are:

- Transportation Demand Management strategies.
- Intelligent Transportation Systems.
- Transportation System Management.
- Multi-modal (highway, bicycle, pedestrian, transit, freight) capital project strategies.

Some of these projects and strategies have already been planned and programmed for the corridor (See tables below). After the completion of the expansion of the Calexico West POE and the planned improvements on Cesar Chavez Boulevard in the City of Calexico, SR-111 (segment 1) from 2<sup>nd</sup> Street to SR-98 will stop serving as the primary transportation connection to the POE. Caltrans should consider relinquishing this segment to the City of Calexico<sup>65</sup>.

**TABLE 13: PLANNED AND PROGRAMMED PROJECTS AND STRATEGIES**

Segment	Description	Planned or Programmed	Location	Source	Purpose	Implementation Phase
2, 3	Widen and improve to six lane freeway with interchanges at Heber Road, McCabe Road, and Jasper Road and an overpass at Chick Road	Planned	From SR-98 to I-8	SCAG 2012 RTP <sup>66</sup> /SCS <sup>67</sup>	Identified RTP Mid-term project	Mid-term
4, 5	Widen and improve to six-lane freeway; add interchanges at Aten Road, Worthington Road, Keystone Road, and SR-78	Planned	From I-8 to SR-78	SCAG 2012 RTP/SCS	Identified RTP Long-term project	Long-term <sup>68</sup> (Unconstrained project list)
6	Widen and improve to four-lane conventional highway	Planned	From Shank Road to SR-115	SCAG 2012 RTP/SCS	Identified RTP Mid-term project	Mid-term <sup>69</sup> (Unconstrained project list)
7, 8	Widen and improve to four-lane conventional highway	Planned	From Young Road to Riverside County Line	SCAG 2012 RTP/SCS	Identified RTP Long-term project	Long-term (Unconstrained project list)

<sup>65</sup> Caltrans will need to prepare a Transportation System Analysis and Evaluation Report (TSAE).

<sup>66</sup> RTP (Regional Transportation Plan).

<sup>67</sup> SCS (Sustainable Community Strategy).

<sup>68</sup> Long-term projects (2025-2035).

<sup>69</sup> Mid-term projects (2015-2025).

**TABLE 14: PROJECTS AND STRATEGIES TO ACHIEVE CONCEPT**

Segment	Description	Location	Source	Purpose	Implementation Phase
1, 2	Upgrade/install curb ramps	In Calexico	2013 10 Year SHOPP	Curb ramps	Near-term
2	Intersection improvements	SR-111/ Jasper Road	D11 Planning Project Sponsor List (IGR) <sup>70</sup>	Traffic Mitigation Project	No data available
2, 3	Widen and improve to six lane freeway with interchanges at Heber Road, McCabe Road, and Jasper Road and an overpass at Chick Road	From SR-98 to I-8	SCAG 2012 RTP/SCS	Identified RTP Mid-term project	Mid-term
4, 5	Widen and improve to six-lane freeway; add interchanges at Aten Road, Worthington Road, Keystone Road, and SR-78	From I-8 to SR-78	SCAG 2012 RTP/SCS	Identified RTP Long-term project	Long-term (Unconstrained project list)
6	Widen and improve to four-lane conventional highway	From Shank Road to SR-115	SCAG 2012 RTP/SCS	Identified RTP Mid-term project (Unconstrained project list)	This project is included in the unconstrained project list.
7	Left turn pocket (NB SR-111 to WB McDonald Road)	SR-111/ McDonald Road	District 11 Planning Project Sponsor List (Intergovernmental Review)	Traffic Mitigation Project	No data available
7, 8	Widen and improve to four-lane conventional highway	From Young Road to Riverside County Line	SCAG 2012 RTP/SCS	Identified RTP Long-term project (Unconstrained project list)	Long-term (Unconstrained project list)

<sup>70</sup> Mitigation measures for proposed intersection modifications are subject to the Caltrans Intersection Control Evaluation (ICE) policy (Traffic Operation Policy Directive 13-02). Alternative intersection design(s) will need to be considered in accordance with the ICE policy; therefore, please refer to the policy for more information and requirements. <http://www.dot.ca.gov/hq/traffops/signtech/signdel/policy/13-02.pdf>

# APPENDIX

## APPENDIX A - GLOSSARY OF TERMS AND ACRONYMS

AADT	Annual Average Daily Traffic
AB	Assembly Bill
ADA	Americans with Disabilities Act of 1990
ADT	Average Daily Traffic
BLM	Bureau of Land Management
BRT	Bus Rapid Transit
BY	Base Year (2010)
CALTRANS	California Department of Transportation
CEQA	California Environmental Quality Act
CMA	Congestion Management Agencies
CO	Carbon Monoxide
CO2	Carbon Dioxide
CTC	California Transportation Commission
FHWA	Federal Highway Administration
GHG	Green House Gases
GIS	Geographic Information System
GSA	United States General Service Administration
HOT	High OccupancyToll lane
HOV	High Occupancy Vehicle
HY	Horizon Year (2035)
IC	Interchange
ICTC	Imperial County Transportation Commission
IGR	Inter-governmental Review
IRRS	Interregional Route System
IS	Intersection
ITC	Intermodal Transit Center
ITS	Intelligent Transportation System
LOS	Level of Service
MPO	Metropolitan Planning Organization
NOA	Naturally Occurring Asbestos
NAAQS	National Ambient Air Quality Standard
NEPA	National Environmental Policy Act
NHS	National Highway System
NO2	Nitrogen Dioxide
PID	Project Initiation Document
PM	Post Mile
PM	Particulate Matter
PSR	Project Study Report
ROW	Right-of-Way
RTP	Regional Transportation Plan
RTIP	Regional Transportation Improvement Program
RTPA	Regional Transportation Planning Agency
SCAG	Southern California Council of Governments
SCS	Sustainable Community Strategy
SHOPP	State Highway Operation and Protection Program
SHS	State Highway System
SIP	State Implementation Plan
STIP	State Transportation Improvement Program

STTA	Surface Transportation Assistance Act
TCIF	Trade Corridors Improvement Fund
TCR	Transportation Concept Report
TDM	Transportation Demand Management
TMS	Transportation Management System
USEPA	United States Environmental Protection Agency
VMT	Vehicle Miles Travels

## DEFINITIONS

**AADT** – Annual Average Daily Traffic - The total traffic volume for the year divided by 365 days. The traffic count year runs from October 1st through September 30<sup>th</sup>. Traffic counting is generally performed by electronic counting instruments moved to locations throughout the state in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of the 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.

**Base year** – The year of the most current data available to Caltrans District Offices.

**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.

**Bottlenecks** – A location where traffic demand exceeds the effective carrying capacity of the roadway. In most cases, the cause of a bottleneck relates to a sudden reduction in capacity, such as a lane drop, merging and weaving, driver distractions, a surge in demand, or a combination of factors.

**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 capital facility investments on the route. The capital investment can include capacity increases, bicycle, pedestrian, and transit facilities, grade separations and managed lanes.

**Complete Streets** - A transportation facility that is planned, designed, operated, and maintained, appropriate to the function and context of the facility, to provide safe mobility for all users, including bicyclists, pedestrians, transit riders, and motorists. (See Caltrans Deputy Directive number DD-64-R1).

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

**Conceptual Project**– An improvement or action needed to maintain mobility or to serve multimodal users that is not currently included in a fiscally 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 are not analyzed in the TCR.

**Environmental Justice** – The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. <http://www.epa.gov/environmentaljustice/>.

**Goods Movement Corridor** – Port-to-border transportation corridors that constitute the State's goods movement backbone. The four corridors identified in California's Goods Movement Action Plan are: Los Angeles-Long Beach-Inland Empire, Bay Area, San Diego/Border, and Central Valley.

**Facility Concept** – Description of a Facility and strategies that may be needed within 20-25 years. The concept 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** – Describes the State Highway. The facility could be freeway, expressway, conventional, or one-way city street.

**Federal Functional Classification** - The Federal-Aid Highway Act of 1973 required the use of functional highway classification to update and modify the Federal-aid highway systems by July 1, 1976. This legislative requirement is still effective today. [http://www.fhwa.dot.gov/planning/processes/statewide/related/functional\\_classification/fc01.cfm](http://www.fhwa.dot.gov/planning/processes/statewide/related/functional_classification/fc01.cfm)

**Focus Route** – A phrase specific to the Interregional Transportation Specific Plan. Focus Routes are a subset of the 34 High Emphasis Routes. The routes represent 10 Interregional Road System (IRRS) corridors that should be of the highest priority for completion to minimum facility standards in the 20-year period. Completion of the Focus Routes to minimum facility standards (for most routes freeway or expressway) will assure a statewide trunk system is in place and complete for higher volume interregional trip movements.

**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.

**High Emphasis Route** - Due to the large number of routes and capacity improvements needed on the Interregional Road System, the 1990 IRRS Plan identified 13 of the 87 routes as being the most critical IRRS routes and identified them by the term “High Emphasis Routes”.

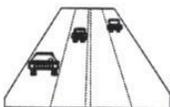
**Horizon Year** – The year that the future (20-25 years) data is based on.

**Intermodal Freight Facility** – A freight facility where different transportation modes and networks connect. The freight is transferred (or “transloaded”) from one mode, such as rail, to another, such as a truck.

**IRRS** - Interregional Road System - Consists of State Routes located outside the boundaries of urbanized areas exceeding a population of over 50,000. In some cases, routes have been continued through urban areas to provide connections for continuations of the IRRS routes. Routes in urbanized areas are not eligible for IRRS funding.

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

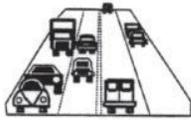
**LOS** – Level of Service - A qualitative measurement of the perceptions of motorists to operational conditions within a traffic stream. A LOS generally describes the conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. The six levels of service can generally be categorized as follows:



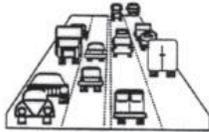
**LOS A** describes free flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway.



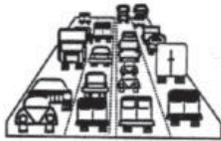
**LOS B** is also indicative of free-flow conditions. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.



**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** consist of 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 as unacceptable, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection.

**Multi-modal** – 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** – Amount of traffic counted during the hour of the day in which the maximum volume occurs across a point on the highway. It is generally between 6 percent and 10 percent of the ADT. The lower values are generally found on roadways with low volumes.

**Peak Period** – The part of the day during which traffic congestion on the road is at its highest. Normally, this happens twice a day, once in the morning and once in the evening; the time periods when the most people commute. Peak Period is defined for individual routes, not a District or statewide standard.

**Planned Project** – An improvement or action in a fiscally 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** – A post mile is an identified point on the State Highway System. The milepost values increase from the beginning of a route to the next county line. The milepost values start over again at each county line. Milepost values usually increase from south to north or west to east depending upon the general direction the route follows within the state. The milepost at a given location will remain the same year after year. When a section of road is relocated, new mileposts (usually noted by an alphabetical prefix such as "R" or "M") are established for it. If relocation results in a change in length, "milepost equations" are introduced at the end of each relocated portion so that mileposts on the remainder of the route within the county will remain unchanged.

**Programmed Project** – An improvement or action 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.

**Railroad Class I** – The Surface Transportation Board (STB) defines a Class I railroad in the U.S. as a carrier having annual operating revenues of \$250 million or more. This class includes the nation's major railroads. In California, Class I railroads include Union Pacific Railroad (UP) and Burlington Northern Santa Fe Railway (BNSF).

**Railroad Class II** – STB defines a Class II railroad in the U.S. as having annual carrier operating revenues of less than \$250 million but more than \$20 million. Class II railroads are considered mid-sized, freight-hauling railroads in terms of operating revenues. They are considered "regional railroads" by the Association of American Railroads.

**Railroad Class III** – Railroads with annual carrier operating revenues of \$20 million or less. The typical Class III is a short line railroad, which feeds traffic to or delivers traffic from a Class I or Class II railroad.

**Route Designation** – Adopted through legislation to identify 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), 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.

**Scenic Highway** - When a city or county nominates an eligible scenic highway for official designation, it must identify and define the scenic corridor of the highway. These local agencies must also adopt ordinances to preserve the scenic quality of the corridor or document such regulations that already exist in various portions of local codes. These ordinances make up the scenic corridor protection program. Landscape Architecture advises the local jurisdictions of the processes and procedures involved in preparing and presenting the applications for scenic highway designations to the California Department of Transportation for approval.

**Section 4(f)** – Department of Transportation Act "Section 4(f)" [49 USC § 303] – defines protected resources as publicly-owned public parks, recreational areas of national, state or local significance, wildlife or waterfowl refuges; or lands from a historic site of national, state or local significance. Recreational areas include formal and informal facilities, including after-school public use of school playgrounds and recreational facilities.

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

**Special Route (Truck) Restrictions** – A Caltrans list of restrictions on routes pertaining to truck weight, number of axles, or carrying of hazardous materials, etc.

**Special Status Consideration** - Species of Special Concern Includes fish, amphibians, reptiles, birds, and mammals that the Department of Fish and Game (DFG) has determined are potentially at risk to become threatened or endangered.

**Strategic Highway Network (STRAHNET)** - Routes that provide defense access, continuity, and emergency capabilities for movement of personnel and equipment in both peace and war. In addition, STRAHNET connectors link important military installations and ports to STRAHNET.

**System Operations and Management Concept** – Descriptions of system operations and management elements that may be needed within 20-25 years. This can include non-capacity increasing operational improvements (Aux. 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.

**TASAS** - Traffic Accident Surveillance and Analysis System (TASAS) is a source for highway data and collision data. The highway data is updated via construction plan reviews and District TASAS Coordinators. The accident data is provided by the California Highway Patrol (CHP) from their SWITRS database. Caltrans is responsible for coding the accident location and CHP is responsible for coding all other accident information.

**TDM** – Transportation Demand Management - 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.

**Terrain** – Caltrans documents two types of terrain; the topography of the route corridor and the profile of the roadway. The terrain data in the TCR describes the topography of each route segment and is obtained from TASAS and is characterized subjectively as "Flat," "Rolling," or "Mountainous." The Highway Design Manual defines maximum grades for types of highways and terrain conditions. The types of terrain are categorized as "Level," "Rolling," and "Mountainous." The grade percentage chart can be found in Chapter 200, Table 204.3.

**TMS** – Transportation Management System - 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.

**Truck Designation** - The California "Truck Network" Route List provides the state route segments and their truck access designations (such as National Network, Terminal Access, California Legal, Advisory, or Restricted) with each segment's beginning and ending Postmiles, and beginning and ending cross streets.

**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.

**VMT** – Vehicle Miles of Travel - The total number of miles traveled by motor vehicles on a road or highway segment.

**LAND PORTS OF ENTRY (POEs)**

**CALEXICO WEST/MEXICALI I POE**

The Calexico West/Mexicali I is the most important non-commercial POE in Imperial County with significant auto and pedestrian activity. There is substantial congestion at this POE and along the State highways which access the international border. Providing an alternative or making improvements to the Calexico West POE and its connecting roadway network will reduce congestion and delay. The Calexico West POE does not process commercial vehicles.

**Basic Overview of the Port’s Configuration – Total Lanes**

Northbound passenger	Northbound SENTRI <sup>71</sup>	Northbound pedestrian	Northbound Bus	Southbound passenger
10	1	4	1	6

	Fiscal Year 2011 Statistics <sup>72</sup>	Future 2030 Conditions <sup>73</sup>	% Increase
Passenger Vehicles	4,095,450	7,560,000	54%
Buses	0		
SENTRI	1,169,014		
<b>Vehicle Total</b>	<b>5,264,464</b>		
Pedestrians	4,451,119		

**Hours of Operation**

Open twenty-four (24) hours a day - Seven (7) days a week

**Calexico West POE Expansion project**

This project would reconfigure and expand the capacity of the POE to increase security, reduce congestion, and reduce cross-border wait times. Phase 1 will include a headhouse and ten of the project’s 16 northbound POV inspection lanes. The second phase will include the balance of the project, including the remaining six northbound lanes, five permanent southbound inspection lanes, an administration building, and a pedestrian processing building with 12 northbound pedestrian inspection stations.

The Calexico West POE Border Expansion Traffic Impact Study (TIS), dated November 2009, identifies project improvements that mitigate the traffic circulation network within the study area. However, the TIS notes the subject improvements being completed in Phase 2 of the project. Caltrans, the City of Calexico, and the Imperial County Transportation Commission strongly recommend for the project improvements to be completed as part of the project’s Phase 1 not Phase 2. Furthermore, additional coordination is to be provided by the GSA regarding the New River, project improvement costs, and project funding.

<sup>71</sup> Secure Electronic Network for Travelers Rapid Inspection.

<sup>72</sup> Source: U.S. Customs and Border Protection Field Data.

<sup>73</sup> Source: Caltrans Crossborder Model Projections and Customs and Border Protection (CBP) Projections.

The relinquishment of SR-111 is a two phased project. Phase 1 is from the international border to just north of the railroad. Phase 1 has been completed. Phase 2 construction will start in June 2015.

**Completion Date:** June 2018 for both Phases 1 and 2

**Cost:** Congress has appropriated \$23.8 million to date for the Calexico West POE expansion project. President Obama has also included a proposed allocation of over \$98 million in the FY2015 budget for the Calexico West POE project.

### Calexico West POE Expansion Project



### Future Activities

Caltrans will collaborate with local agencies to amend land uses and allow POE related activities at the Calexico East POE area to minimize commercial vehicle traffic in downtown Calexico.

## CALEXICO EAST/MEXICALI II POE

The Calexico East/Mexicali II POE serves all commercial truck traffic crossing between Imperial County and Mexicali, Mexico. Continued growth will eventually require expansion of this POE.

### Basic Overview of the Port’s Passenger Configuration – Total Lanes

Northbound passenger	Northbound SENTRI	Northbound pedestrian	Northbound Bus	Southbound passenger
8	1	4	1	2

### Basic Overview of the Port’s Commercial Configuration

Northbound Truck	Northbound FAST <sup>74</sup>	Northbound Empty Only	Southbound Truck
3	1	N/A	1

### Hours of Operation:

6:00AM - 10:00PM (Pacific) - Seven (7) days a week

### Cargo Facility Operation Hours

6:00AM - 8:00PM (Pacific) - Weekdays (Monday - Friday)

10:00AM - 6:00PM (Pacific) - Saturday

	Fiscal Year 2011 Statistics <sup>75</sup>	Future 2030 Conditions <sup>76</sup>	% Increase
Passenger Vehicles	2,784,769	6,010,046	46%
Buses	3,193		
Commercial Vehicles	312,973	603,000 <sup>2</sup>	51%
<b>SENTRI</b>	322,361		
<b>Vehicle Total</b>	3,423,296		
Pedestrians	117,624		
2011 Trade Value	\$11,401,870,497		

### Proposed Expansion Calexico East POE Project

This is a project to reconfigure and expand the POE to increase security, alleviate congestion, and reduce cross-border wait times.

**Status:** GSA and Caltrans are working together to identify low cost, high impact, expedited implementation vehicular (passenger and commercial) capacity enhancing projects. The GSA and the CBP have near-term plans to add six new auto lanes and three new truck lanes.

**Completion Date:** Currently, this proposed project lacks funding.

<sup>74</sup> Free and Secure Trade.

<sup>75</sup> Source: U.S. Customs and Border Protection Field Data.

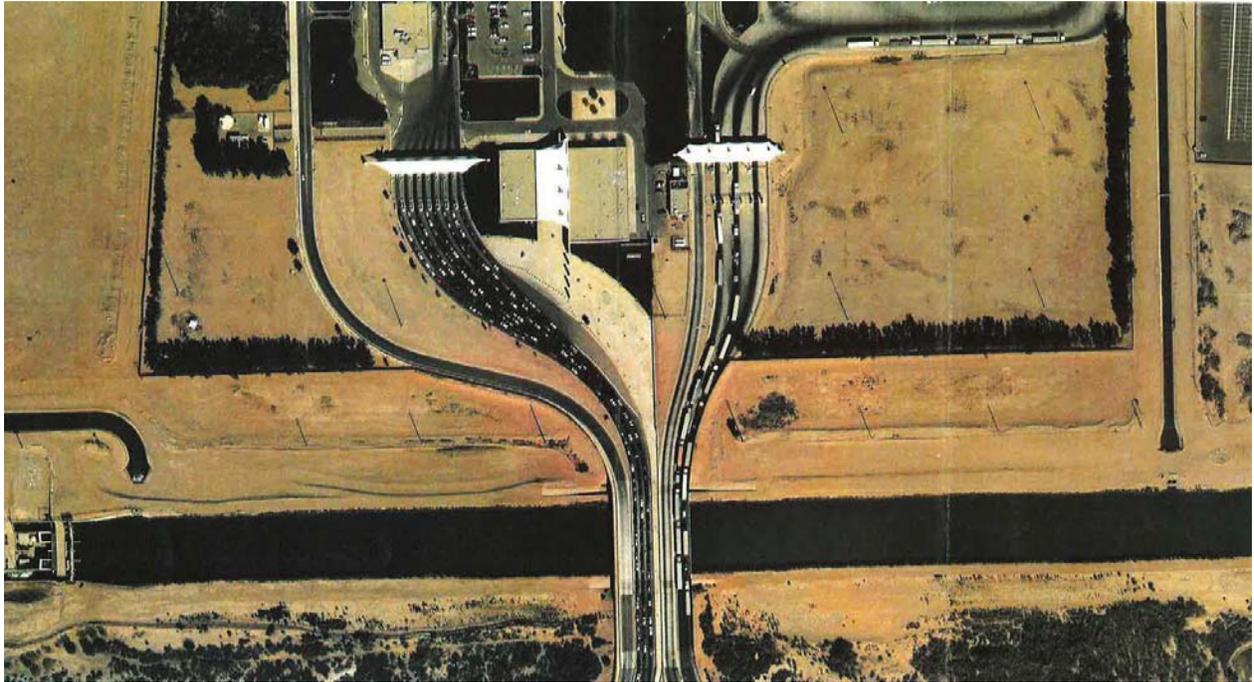
<sup>76</sup> Source: Caltrans Crossborder Model Projections and CBP Projections.

**Cost:** Project costs and scope have yet to be determined.

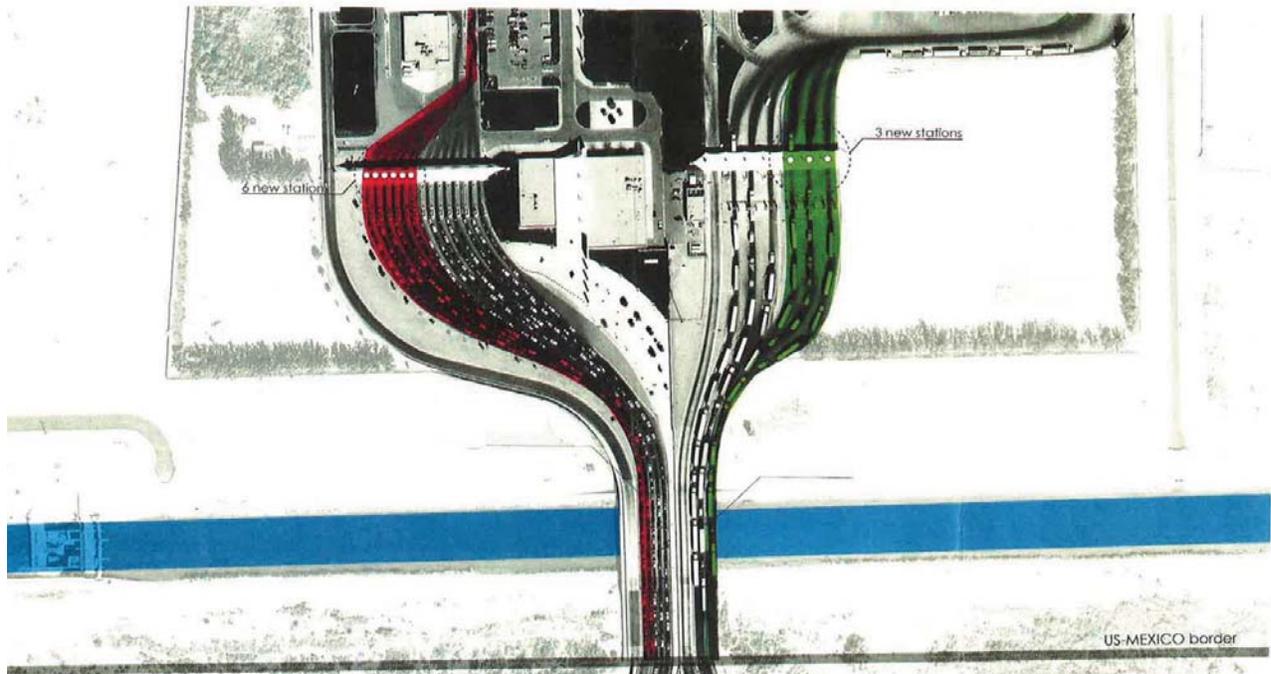
**Future Activities**

Caltrans will collaborate to promote a land use zone change which encourages the establishment of brokerage houses in the Calexico East area to alleviate truck route/land use conflicts in Calexico. Also, Caltrans should pursue grant opportunities for the proposed project through federal funds (i.e., TIGER application).

**Calexico West POE- Existing Facility**



**Calexico West POE- Proposed Expansion**



## **ECONOMIC IMPACTS OF WAIT TIMES AT THE CALIFORNIA – MEXICO BORDER (2009 UPDATE)**

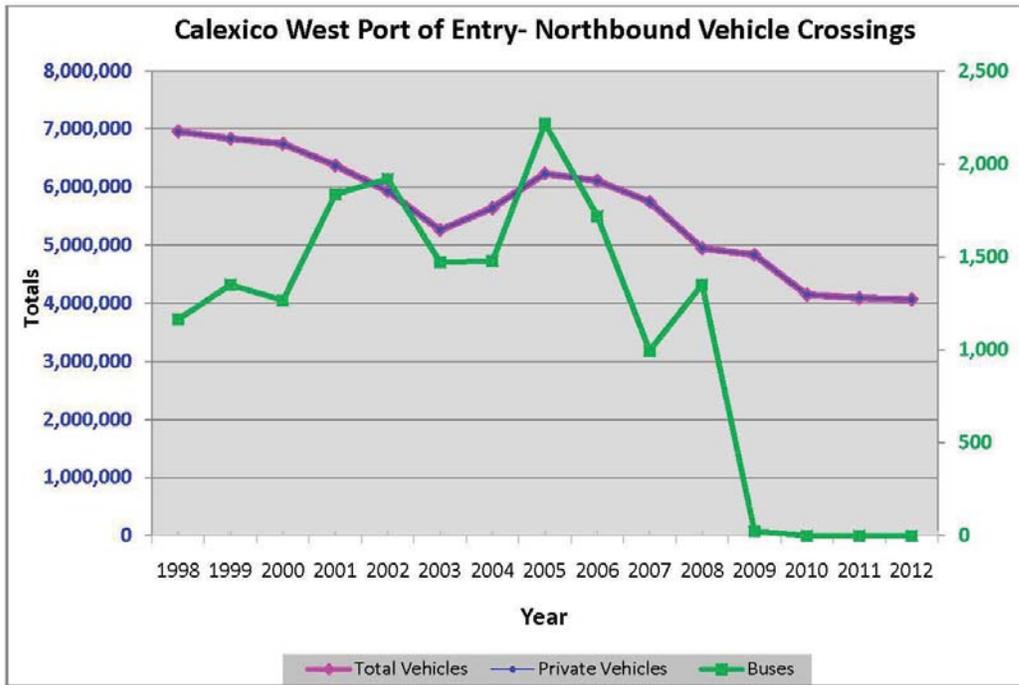
In 2004, the San Diego Association of Governments (SANDAG) in partnership with the California Department of Transportation (Caltrans) engaged HDR Decision Economics (HDR) to assess the economic impacts of delays at the San Diego – Baja California land POEs for both personal trips and commercial traffic. A similar analysis was conducted for the Imperial Valley Association of Governments (IVAG) shortly after. At the time, the study was prompted by the tightening of border security amid concerns it could adversely affect the cross-border economy. The study concluded that increasing delays at the border could significantly hinder economic growth in the border region. The *Economic Impacts of Wait Times at the California – Mexico Border* report provided an update of the study results for 2008.

Overall, HDR estimated that over 30,000 jobs were lost nationwide due to delays at the California /Mexico border in 2008, including 25,000 in California alone. The impacts of delays were also significant on the other side of the border, with over 11,000 jobs lost in Mexico, including 7,600 in Baja California. By 2017, under conservative growth projections, nearly 45,000 jobs could be lost in the U.S. and 16,000 in Mexico.

In 2012, the Southern California Association of Governments (SCAG) published the *Goods Movement Border Crossing Study and Analysis* report. According to this report, Imperial County lost 1.05 million personal trips. This direct impact is net of additional revenue from expenditures by people who chose to forego their trips because of border delays and spent their money in their home country instead. A majority of the net revenue loss occurred in the retail sector. Border delays were also responsible for employment losses with an estimated 4,145 lost jobs in Imperial County.

## VOLUME DATA

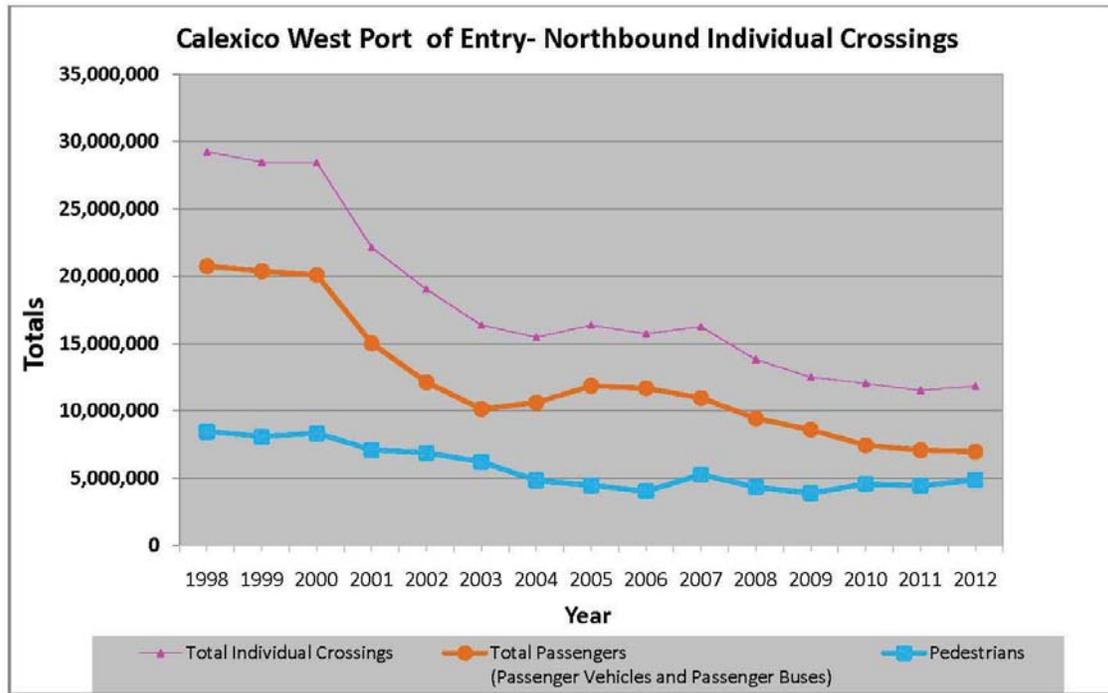
### CALEXICO WEST – Vehicle Crossings



Year	Total Vehicles	Private Vehicles	Buses	% Year Change of the Total Crossings
1998	6,958,618	6,957,454	1,164	
1999	6,837,723	6,836,372	1,351	-1.74
2000	6,746,236	6,744,970	1,266	-1.34
2001	6,376,262	6,374,425	1,837	-5.48
2002	5,932,552	5,930,632	1,920	-6.96
2003	5,263,457	5,261,985	1,472	-11.28
2004	5,643,471	5,641,994	1,477	7.22
2005	6,236,819	6,234,602	2,217	10.51
2006	6,111,934	6,110,214	1,720	-2.00
2007	5,748,305	5,747,309	996	-5.95
2008	4,951,861	4,950,509	1,352	-13.86
2009	4,839,312	4,839,287	25	-2.27
2010	4,150,569	4,150,569	0	-14.23
2011	4,095,450	4,095,450	0	-1.33
2012	4,070,090	4,070,090	0	-0.62

## VOLUME DATA

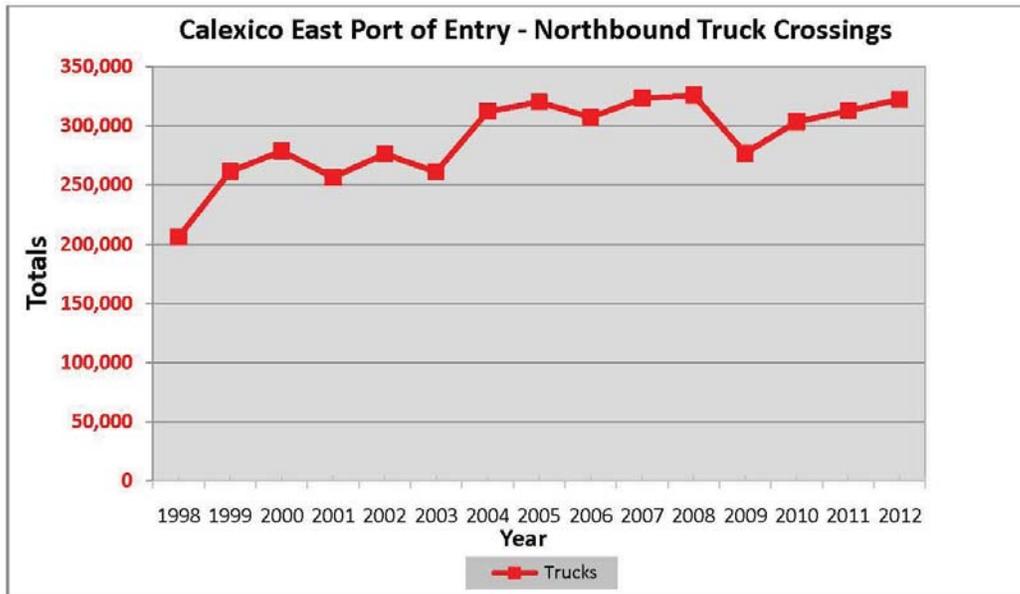
### CALEXICO WEST –Individual Crossings



Total Individual Crossings	Total Passengers (Passenger Vehicles and Passenger Buses)	Pedestrians	% Year Change of the Total Crossings
29,262,831	20,770,753	8,492,078	
28,500,828	20,401,575	8,099,253	-2.60
28,466,151	20,113,827	8,352,324	-0.12
22,155,003	15,035,218	7,119,785	-22.17
19,050,007	12,155,187	6,894,820	-14.01
16,387,808	10,157,685	6,230,123	-13.97
15,482,051	10,634,955	4,847,096	-5.53
16,357,673	11,876,659	4,481,014	5.66
15,740,529	11,691,900	4,048,629	-3.77
16,265,738	10,974,761	5,290,977	3.34
13,826,148	9,466,247	4,359,901	-15.00
12,531,251	8,626,338	3,904,913	-9.37
12,061,028	7,474,182	4,586,846	-3.75
11,550,844	7,099,725	4,451,119	-4.23
11,867,269	6,981,401	4,885,868	2.74

## VOLUME DATA

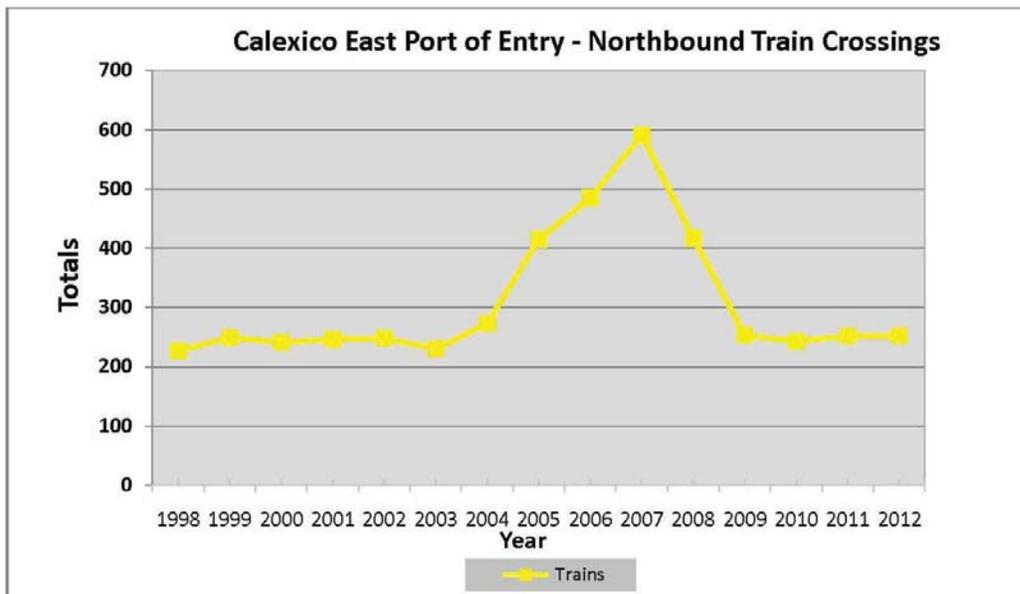
### CALEXICO EAST – Truck Crossings



Year	Trucks	% Year Change of the Total Crossings
1998	206,218	
1999	261,545	26.83
2000	278,811	6.60
2001	256,715	-7.93
2002	276,390	7.66
2003	261,140	-5.52
2004	312,227	19.56
2005	320,212	2.56
2006	307,291	-4.04
2007	323,348	5.23
2008	325,975	0.81
2009	276,894	-15.06
2010	303,552	9.63
2011	312,973	3.10
2012	322,424	3.02

## VOLUME DATA

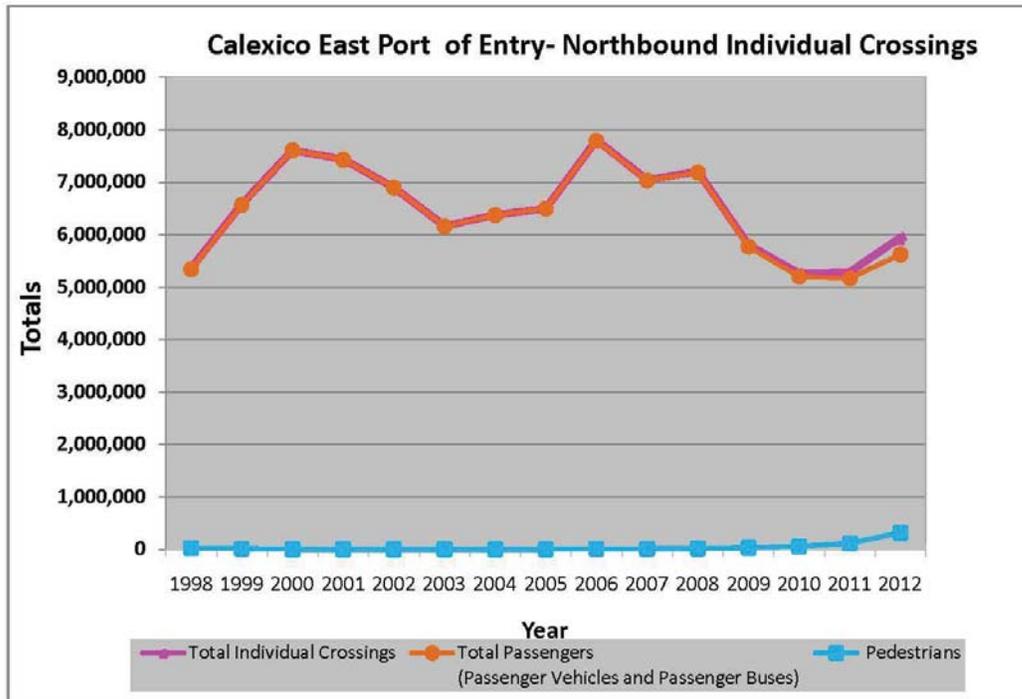
### CALEXICO EAST – Train Crossings



Year	Trains	% Year Change of the Total Crossings
1998	227	
1999	249	9.69
2000	241	-3.21
2001	246	2.07
2002	248	0.81
2003	230	-7.26
2004	273	18.70
2005	415	52.01
2006	485	16.87
2007	591	21.86
2008	417	-29.44
2009	253	-39.33
2010	243	-3.95
2011	252	3.70
2012	252	0.00

## VOLUME DATA

### CALEXICO EAST – Individual Crossings



Year	Total Individual Crossings	Total Passengers (Passenger Vehicles and Passenger Buses)	Pedestrians	% Year Change of the Total Crossings
1998	5,369,930	5,341,281	28,649	
1999	6,587,602	6,572,502	15,100	22.68
2000	7,610,037	7,607,744	2,293	15.52
2001	7,430,288	7,427,750	2,538	-2.36
2002	6,900,066	6,897,668	2,398	-7.14
2003	6,162,918	6,161,332	1,586	-10.68
2004	6,374,295	6,371,228	3,067	3.43
2005	6,499,227	6,497,771	1,456	1.96
2006	7,802,684	7,789,791	12,893	20.06
2007	7,041,162	7,031,733	9,429	-9.76
2008	7,203,923	7,185,893	18,030	2.31
2009	5,805,220	5,771,290	33,930	-19.42
2010	5,263,237	5,204,466	58,771	-9.34
2011	5,288,006	5,170,382	117,624	0.47
2012	5,941,643	5,623,044	318,599	12.36

## APPENDIX C - ADDITIONAL CORRIDOR DATA

### Current SR-111 Signalized Intersections<sup>77</sup>

Location	Post Mile
Imperial Avenue/ Second Street	0.201
Fifth Street	0.410
Seventh Street	0.561
Eighth Street/ Grant Street	0.694
Cole Road	2.210
Cole Road/ Rockwood Avenue	2.211
Jasper Road	3.200
Route 86/ Heber Road (Junction 86)	4.742
McCabe Road	6.242
Ross Avenue	8.244
East Evan Hewes Highway (Old 80)	9.496
Aten Road	12.544
Worthington Road	14.114
Keystone Road	17.590
Junction 78	22.008
B Street	22.429

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<sup>77</sup> ITS Master Plan 2011 (D-11 Division of Traffic Operations).

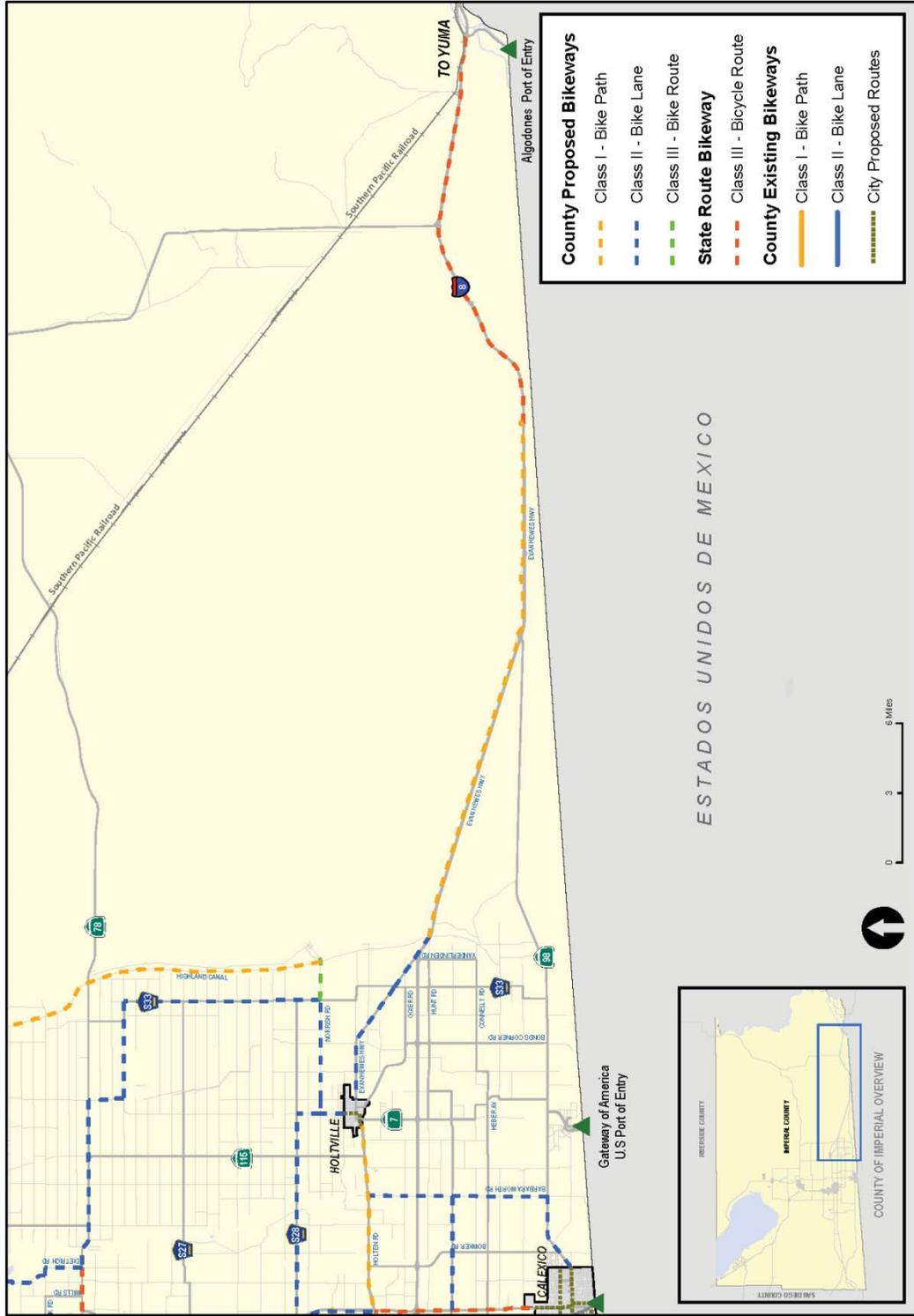


Figure 5-1: Existing and Proposed Bicycle Network

County of Imperial Bicycle Master Plan Update

Source: County of Imperial (2011)  
Date: 3/5/2011





**Figure 5-3: East County Proposed Bikeways**

County of Imperial Bicycle Master Plan Update

Source: County of Imperial (2011)

Date: 3/5/2011