5.11 TRANSPORTATION AND TRAFFIC

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the City of Los Alamitos General Plan Update to result in transportation and traffic impacts in the City of Los Alamitos and Rossmoor, which is the City’s sphere of influence (SOI). This section presents the existing transportation conditions in the City and Rossmoor, including the roadway network, bicycle and pedestrian network, transit network, aviation facilities, and current intersection and roadway segment operations. This section also discusses the methodology used to evaluate impacts. The analysis is based in part on the following technical report:

- City of Los Alamitos Transportation Study: Recommendations and Impact Assessment, Fehr and Peers, May 15, 2014

A complete copy of this study is in Appendix G of this Draft EIR

5.11.1 Environmental Setting

5.11.1.1 REGULATORY SETTING

Vehicular Conditions

The traffic study analyzed the operation of the roadway system, including roadway segments and intersections. Operations for these facilities are expressed in terms of level of service (LOS), which is a general measure of traffic operating conditions where a letter grade, from LOS A (no congestion) to F (high levels of congestion), is assigned. LOS E represents “at capacity” operations. LOS qualitatively measures the operating conditions within a traffic system and how drivers and passengers perceive these conditions.

The flow of vehicles without significant impediments is considered “stable,” but when traffic encounters interference that limits the capacity acutely, the flow becomes “unstable.” These grades represent the perspective of drivers only and are an indication of the comfort and convenience associated with driving, as well as speed, travel time, traffic interruptions, and freedom to maneuver.

Intersection Levels of Service

Table 5.11-1, Intersection Level of Service Criteria for Signalized Intersections, summarizes how the LOS corresponds to intersection delay at the signalized study intersections. According to the City’s General Plan criteria, LOS “D” is the maximum acceptable level of congestion on City’s intersections during the peak periods. This same LOS is retained in the General Plan Update.
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### Table 5.11-1  Intersection Level of Service Criteria for Signalized Intersections

<table>
<thead>
<tr>
<th>LOS</th>
<th>Interpretation</th>
<th>Volume to Capacity Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Operations with very low delay occurring with favorable progression and/or short cycle length.</td>
<td>0.000–0.600</td>
</tr>
<tr>
<td>B</td>
<td>Operations with low delay occurring with good progression and/or short cycle lengths.</td>
<td>0.601–0.700</td>
</tr>
<tr>
<td>C</td>
<td>Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.</td>
<td>0.701–0.800</td>
</tr>
<tr>
<td>D</td>
<td>Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.</td>
<td>0.801–0.900</td>
</tr>
<tr>
<td>E</td>
<td>Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.</td>
<td>0.901–1.000</td>
</tr>
<tr>
<td>F</td>
<td>Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.</td>
<td>Greater than 1.000</td>
</tr>
</tbody>
</table>

Source: Intersection Capacity Utilization methodology; Fehr & Peers 2014.

### Roadway Levels of Service

Daily capacity thresholds in accordance with the City of Los Alamitos’ 2010 General Plan Circulation Element are shown in Table 5.11-2, Maximum Daily Roadway Capacities. This table establishes the maximum daily roadway capacities by street classifications. According to the City’s current General Plan, LOS “D” is the maximum acceptable level of congestion on City roadways during the peak periods.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Typical Lane Configuration</th>
<th>LOS A</th>
<th>LOS B</th>
<th>LOS C</th>
<th>LOS D</th>
<th>LOS E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart Street</td>
<td>6 Lanes Divided</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>60,000</td>
</tr>
<tr>
<td></td>
<td>8 Lanes Divided</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>72,000</td>
</tr>
<tr>
<td>Major</td>
<td>6 Lanes Divided</td>
<td>36,000</td>
<td>40,400</td>
<td>45,000</td>
<td>49,500</td>
<td>54,000</td>
</tr>
<tr>
<td></td>
<td>4 Lanes Divided</td>
<td>24,000</td>
<td>27,000</td>
<td>30,000</td>
<td>33,000</td>
<td>36,000</td>
</tr>
<tr>
<td></td>
<td>4 Lanes Undivided</td>
<td>16,000</td>
<td>18,000</td>
<td>20,000</td>
<td>22,000</td>
<td>24,000</td>
</tr>
<tr>
<td>Commuter</td>
<td>2 Lanes Undivided</td>
<td>5,000</td>
<td>7,500</td>
<td>10,000</td>
<td>12,500</td>
<td>15,000</td>
</tr>
</tbody>
</table>

Source: Los Alamitos 2010 General Plan Circulation Element.

### Applicable Plans and Regulations

The regulatory framework is used to inform decision makers about the regulatory agencies/policies that affect transportation in the City of Los Alamitos and its SOI. This enables them to make informed decisions about planning improvements to transportation systems in the City. Major policy documents impacting the transportation system in Los Alamitos include laws at the state level and planning documents at a regional level.
Federal Regulations

**Surface Transportation Assistance Act**

In 1982, the federal government passed the Surface Transportation Assistance Act (STAA). This act requires states to allow larger trucks on the “National Network,” which consist of the interstate system plus the noninterstate federal-aid primary system. Larger trucks include (1) doubles with 28.5-foot trailers, (2) singles with 48-foot semitrailers and unlimited kingpin-to-rear axle distance, (3) unlimited length for both vehicle combinations, and (4) widths up to 102 inches. Interstate 605 (I-605) in the City is an STAA route.

**State**

**AB 1358, California Complete Streets Act**

The California Complete Streets Act of 2008 was signed into law on September 30, 2008. Beginning January 1, 2011, Assembly Bill 1358 required circulation elements to address the transportation system from a multimodal perspective. The bill states that streets, roads, and highways must “meet the needs of all users…in a manner suitable to the rural, suburban, or urban context of the general plan.” Essentially, this bill requires a circulation element to plan for all modes of transportation where appropriate—including walking, biking, car travel, and transit.

The Complete Streets Act also requires circulation elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled. For further clarity, AB 1358 tasked the Governor’s Office of Planning and Research to release guidelines for compliance with this legislation by January 1, 2014.

**SB 743**

Senate Bill 743 (SB 743), passed September 27, 2013, makes a set of amendments to CEQA. This bill gives individual agencies the ability to opt out of a congestion management program. It requires the Governor’s Office of Planning and Research (OPR) to develop alternative impact criteria for transportation impacts in transit priority areas. The biggest impact of this bill may be the requirement for OPR to look at changing the CEQA significance thresholds for traffic throughout the state. This could result in LOS not being an environmental impact under CEQA. OPR completed draft guidelines in February 2014, but official guidelines will not be approved by the Natural Resource Agency until spring 2015.

**Regional**

**SCAG’s 2013 RTP/SCS**

The Southern California Association of Government’s (SCAG) 2013 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) provides a regional transportation plan for six counties in Southern California: Orange, San Bernardino, Riverside, Los Angeles, Ventura, and Imperial. The primary goal of the RTP is to increase mobility for the region. With recent legislation, this plan also encompasses sustainability as a key principle in future development.
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**Orange County Congestion Management Program**

The Orange County Congestion Management Program (CMP) defines a network of state highways and arterials, LOS standards, and related procedures and provides technical justification for the approach. The CMP for Orange County was originally adopted in 1991 and updated most recently in 2013. For consistency with the CMP, CMP-designated intersections in the City (I-605 Northbound Ramps at Katella Avenue) should operate at LOS E or better. Additionally, during the CMP monitoring process, if any CMP facility operates at a deficient level, a deficiency plan is required to restore operations to an acceptable level.

A key element of the current Land Use/Transportation Analysis Program of the CMP is the traffic impact analysis report (TIA), to be prepared by local jurisdictions. The TIA reports are designed to provide an improved basis for assessing the impacts of land use decisions on the regional transportation system, both within and outside the permitting jurisdictions, by providing a consistent format to identify impacts and mitigations, and to evaluate mitigation costs. All TIA reports prepared by local jurisdictions are copied to the Congestion Management Agency, which is the Orange County Transportation Authority (OCTA). TIA reports would be prepared for projects under the General Plan Update when required by local thresholds and criteria.

**OCTA Commuter Bikeways Strategic Plan**

OCTA developed the Commuter Bikeways Strategic Plan (CBSP) in 1995, with the latest update in 2009. The CBSP is a regional planning document that identifies existing and proposed bikeways in Orange County. Through the cooperation of the cities and the county, an inventory was taken of existing bikeways, and priorities for new bikeways were identified. Prioritization of the proposed bikeways, as identified in the plan, was based on several factors, including input from local jurisdictions and the public, as well as connectivity to transit and regional destinations. Three future facilities are identified by the City and the CBSP:

- **Class I Bicycle Trails**
  - Drainage channel behind Los Alamitos High School from the Coyote Creek Bikeway
  - Abandoned railroad ROW between McAuliffe Middle and Los Alamitos Elementary schools

- **Class II Bicycle Lanes**
  - Los Alamitos Boulevard

**Local**

**Current General Plan Circulation and Transportation Element**

The circulation and transportation element was adopted in 1989 and addresses the movement of people and goods throughout the City’s transportation network. It evaluates transportation and circulation needs in the City and recommends improvements that to accommodate future demand. The City’s LOS policy in the current General Plan is to maintain a citywide LOS not exceeding LOS “D” for roadways and intersections during the peak hours.
The current General Plan also identifies that not all intersections in the City may be able to meet a LOS “D”. Therefore, the current General Plan identifies procedures for the City Council to establish an intersection as a “critical intersection” if it meets one of the following criteria:

- The cost of the necessary improvements exceeds available funding sources
- The design of the necessary improvements is not compatible with the surrounding land uses.

**Katella & Los Alamitos Commercial Corridors Plan**

With SCAG Compass Blue Print funding, the City prepared a commercial corridor plan for Katella Avenue and Los Alamitos Boulevard. This demonstration project analyzes and outlines actions the City can take to capitalize on the potential future bus rapid transit routes/stations, stimulate new private investment and redevelopment, and ultimately create great places in Los Alamitos. In addition to the Compass Blueprint principles, the demonstration project is driven by six specific project goals:

- Enhance the City's sense of identity along the corridors and at key gateways.
- Create a central, pedestrian- and bicycle-friendly place for those who live, work, learn, and shop in Los Alamitos.
- Create a reason for people to turn left or right from Katella Avenue onto Los Alamitos Boulevard.
- Consolidate scattered office, medical, retail, and service uses into logical districts and nodes.
- Develop strategies for the reuse of key commercial centers and other underutilized parcels and incentivize lot consolidation.
- Maximize the multimodal nature of the corridors and capitalize on future BRT investments.

### 5.11.1.2 EXISTING SETTING

**Existing Roadway Network**

The City of Los Alamitos roadway system includes a range of facilities, including highways, arterials, commuter streets, smart streets, and local streets. Two major functions of a roadway are to serve through-traffic and provide access to adjacent property. Different facilities are intended to serve these purposes differently. For instance, arterials generally prioritize the movement of traffic over access to individual adjacent properties, and local streets prioritize access to private properties over through-traffic. Roadways are also intended to provide bicycle and pedestrian access and circulation and are the backbone of the bicycle and pedestrian network. Figure 5.11-1, *Current General Plan Roadway Classifications*, shows the current Los Alamitos General Plan roadway classifications. All other roadways are local roads and provide additional access to homes and businesses.
Primary regional access to Los Alamitos and its SOI is provided by I-605, I-405, and State Route 22 (SR-22), as described below:

- **Interstate 405 Freeway** runs north–south immediately south of the City of Los Alamitos. It extends from Irvine in the south to the San Fernando Valley in the north. Near the study area, it generally provides five travel lanes in each direction, with an additional high occupancy vehicle (HOV) carpool lane in each direction. The posted speed limit is 65 mph. Local access is provided off Seal Beach Boulevard and Valley View Street.

- **Interstate 605 Freeway** runs north–south west of the City. It extends from I-405 in the south to Duarte in the north. Near the study area it generally provides four travel lanes in each direction, with an additional HOV carpool lane in each direction. The posted speed limit is 65 mph. Local access is provided off Katella Avenue and Cerritos Avenue.

- **State Route 22** runs east–west south of the City. It extends from Long Beach in the west to Tustin in the east. Near the study area, SR-22 joins I-405 and generally provides five travel lanes in each direction, with an additional HOV carpool lane in each direction. Local access is provided off Seal Beach Boulevard and Valley View Street.

Access throughout the City and SOI is provided by major arterials such as Katella Avenue, Cerritos Avenue, Ball Road, and Los Alamitos Boulevard. Roadways in the study area are classified in the current City of Los Alamitos General Plan as follows:

- **Los Alamitos Boulevard** is a north–south divided Major Arterial with two lanes in each direction north of Florista Street, and three lanes in each direction south of Florista Street. It extends into Los Angeles County as Norwalk Boulevard to the north and to the Pacific Ocean as Seal Beach Boulevard to the south. Los Alamitos Boulevard is a direct connector to SR-91 and I-405. Street parking is permitted along most of Los Alamitos Boulevard north of Farquhar Avenue, excluding the bridge, but is not permitted south of Farquhar Avenue. The posted speed limit ranges from 35 to 40 miles per hour (mph). Los Alamitos Boulevard is a designated truck route.

- **Bloomfield Street** is a north-south divided Secondary Street with two lanes in each direction north of Katella Avenue, and undivided with one lane in each direction south of Katella Avenue. It extends from Whittier Boulevard to the north to Farquhar Avenue to the south. Bloomfield Street is a direct connector to I-5 and SR-91 to the north. Street parking is permitted along portions of Bloomfield Street, and the posted speed limit varies between 25 and 40 mph. Bloomfield Street is a designated truck route between Katella Avenue and Cerritos Avenue.
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Figure 5.11-1 Current General Plan Roadway Classifications

- **City Boundary**
- **Sphere of Influence**
- **Other City Boundaries**

**Classification**
- Smart Street, 6 Lane (122 ft. ROW)
- Major Arterial (120 ft. ROW)
- Primary Arterial (100 - 120 ft. ROW)
- Secondary Arterial (80 ft. ROW)

Source: Fehr & Peers, 2014

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San Gabriel River
Coyote Creek
Los Alamitos Joint Forces Training Base

Los Alamitos
Cypress
Garden Grove
Long Beach
Seal Beach

Figure 5.11-1 Current General Plan Roadway Classifications

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- **Denni Street/Lexington Drive.** Denni Street stretches from Forest Lawn Memorial Park to Cerritos Avenue and is a north–south undivided Secondary Street with two lanes in each direction. Lexington Drive stretches from Cerritos Avenue to the Los Alamitos Joint Forces Training Base (JFTB) and is a north-south undivided street with one lane in each direction. Street parking is only permitted on Lexington Drive north of Farquhar Avenue and south of Katella Avenue. The posted speed limit on Denni Street/Lexington Drive in the study area is 25 mph.

- **Ball Road** is an east–west divided Primary Arterial with two lanes in each direction. It extends from Lakewood Boulevard east to Cannon Street. Street parking is not permitted on Ball Road, and the posted speed limit is 40 mph. Ball Road is a designated truck route through Los Alamitos.

- **Cerritos Avenue** is an east–west divided Primary Arterial with two lanes in each direction. From I-405, it extends west as Spring Street east as Cerritos to Walnut Street. Street parking is not permitted along most of Cerritos Avenue, and the posted speed limit is 35 mph. Cerritos Avenue is a designated truck route through Los Alamitos.

- **Katella Avenue** is an east–west divided Smart Street with four lanes in each direction west of Los Alamitos Boulevard and three lanes in each direction east of Los Alamitos Boulevard. It extends into Los Angeles County as Willow Street, Sepulveda Boulevard, and Camino Real to the west and extends into the City of Irvine to the east. Katella Avenue is a direct connector to I-110, I-710, I-405, I-605, I-5, SR-57, and SR-55. Katella Avenue is a designated truck route through the City.

Existing Traffic Conditions

**Existing Roadway Intersections**

There are 26 signalized intersections in Los Alamitos, some of which are not maintained by the City, but by regional and adjacent jurisdictions. The majority of traffic signals in the City are installed along Los Alamitos Boulevard and Katella Avenue. There are no signalized intersections in Rossmoor except at some of the perimeter intersections.

Based on a review of the roadway network and circulation throughout Los Alamitos, 14 intersections were selected for analysis in the City and SOI. Figures 5.11-2a and 5.11-2b, *Existing Peak Hour Intersection Traffic Volumes and Lane Configurations*, presents the existing traffic volumes and lane configurations at the study intersections. The existing intersection traffic counts for these 14 intersections were compiled from a variety of sources, including: traffic counts conducted by Fehr and Peers in September 2012, the June 2011 Los Alamitos Boulevard Corridor Traffic Study, the June 2010 Los Alamitos Medical Center Specific Plan Traffic Impact Analysis, and the 2013 Orange County CMP (see the Transportation Study in Appendix G of this DEIR for additional information on traffic counts).

Intersection operations were evaluated with the Traffix 8.0 level of service software, which is consistent with the methodologies in the Intersection Capacity Utilization methodology, as identified by OCTA. The LOS were calculated for key roadway segments in the City’s regional roadway system to evaluate existing traffic conditions.
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conditions. All intersections evaluated in the traffic study are signalized. Table 5.11-3 Existing Study Area Intersection LOS, summarizes the existing traffic operations at the 14 study intersections during the morning (AM) and evening (PM) peak hours. The results of the intersection assessment indicate that all of the study intersections are operating at an acceptable LOS, with many intersections operating at LOS A or LOS B during one or both peak hours.

<table>
<thead>
<tr>
<th>No.</th>
<th>Intersection</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>VIC (Delay)¹</td>
<td>LOS</td>
</tr>
<tr>
<td>1</td>
<td>Los Alamitos Boulevard at Cerritos Avenue</td>
<td>0.770</td>
<td>C</td>
</tr>
<tr>
<td>2</td>
<td>Los Alamitos Boulevard at Katella Avenue</td>
<td>0.787</td>
<td>C</td>
</tr>
<tr>
<td>3</td>
<td>Los Alamitos Boulevard at Farquhar Avenue</td>
<td>0.548</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>Los Alamitos Boulevard at Orangewood Avenue</td>
<td>0.641</td>
<td>B</td>
</tr>
<tr>
<td>5</td>
<td>Los Alamitos Boulevard at Bradbury Road</td>
<td>0.623</td>
<td>B</td>
</tr>
<tr>
<td>6</td>
<td>Los Alamitos Boulevard at St. Cloud Drive</td>
<td>0.534</td>
<td>A</td>
</tr>
<tr>
<td>7</td>
<td>Bloomfield Street at Ball Road</td>
<td>0.690</td>
<td>B</td>
</tr>
<tr>
<td>8</td>
<td>Bloomfield Street at Cerritos Avenue</td>
<td>0.815</td>
<td>D</td>
</tr>
<tr>
<td>9</td>
<td>Bloomfield Street at Katella Avenue</td>
<td>0.671</td>
<td>B</td>
</tr>
<tr>
<td>10</td>
<td>Lexington Avenue at Katella Avenue</td>
<td>0.528</td>
<td>A</td>
</tr>
<tr>
<td>11</td>
<td>Walker Street at Katella Avenue</td>
<td>0.672</td>
<td>B</td>
</tr>
<tr>
<td>12</td>
<td>Wallingsford Road/ Walnut Street at Katella Avenue</td>
<td>0.857</td>
<td>D</td>
</tr>
<tr>
<td>13</td>
<td>Los Alamitos Boulevard at Rossmoor Center Way</td>
<td>0.443</td>
<td>A</td>
</tr>
<tr>
<td>14</td>
<td>I-605 Northbound Ramps at Katella Avenue²</td>
<td>0.355</td>
<td>A</td>
</tr>
</tbody>
</table>

Source: Fehr and Peers 2014.

¹ VIC represents the volume to capacity ratio.
² Delay is presented since this is a Caltrans intersection and the Caltrans comment letter requested methodologies consistent with the Highway Capacity Manual (HCM).
Figure 5.11-2a Existing Peak Hour Intersection Traffic Volumes and Lane Configurations

Table:

<table>
<thead>
<tr>
<th>Study Intersections</th>
<th>Project Area</th>
<th>City of Los Alamitos</th>
<th>Community of Rossmoor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Los Alamitos Blvd &amp; Cerritos Ave</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Los Alamitos Blvd &amp; Katella Blvd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Los Alamitos Blvd &amp; Farquhar Ave</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Los Alamitos Blvd &amp; Orangewood Ave</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Los Alamitos Blvd &amp; Bradbury Rd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Los Alamitos Blvd &amp; St. Cloud Dr</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Bloomfield St &amp; Ball Rd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Bloomfield St &amp; Cerritos Ave</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- Turn Lane
- Peak Hour Traffic Volume
- Traffic Signal
- Study Intersections

Source: Fehr & Peers, 2014
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### Figure 5.11-2b Existing Peak Hour Intersection Traffic Volumes and Lane Configurations

<table>
<thead>
<tr>
<th>Study Intersections</th>
<th>Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Bloomfield St &amp; Katella Ave</td>
<td>City of Los Alamitos</td>
</tr>
<tr>
<td>10. Lexington Ave &amp; Katella Ave</td>
<td>Community of Rossmoor</td>
</tr>
<tr>
<td>11. Walker St &amp; Katella Ave</td>
<td></td>
</tr>
<tr>
<td>12. Wallingsford Rd/Walnut St &amp; Katella Ave</td>
<td></td>
</tr>
<tr>
<td>13. Los Alamitos Blvd &amp; Rossmoor Ctr Wy</td>
<td></td>
</tr>
<tr>
<td>14. I-605 NB Ramps &amp; Katella Ave</td>
<td></td>
</tr>
</tbody>
</table>

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**Source:** Fehr & Peers, 2014

**Figure 5.11-2b Existing Peak Hour Intersection Traffic Volumes and Lane Configurations**

**Turn Lane**

**AM (PM) Peak Hour Traffic Volume**

**Traffic Signal**

**Study Intersections**

**Project Area**

- City of Los Alamitos
- Community of Rossmoor

**Source:** Fehr & Peers, 2014

**Page Dimensions:** 612.0x792.0

**Date:** February, 2014
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Existing Roadway Segments

A roadway operations analysis was performed at the study roadway segments to provide an evaluation of how the roadway network will perform. It also provides an idea of the amount of traffic that will utilize each roadway and if the existing or proposed lane configurations can adequately handle the volumes.

Based on a review of the roadway network and circulation throughout Los Alamitos, 19 roadway segments were selected for analysis within the City and SOI, and are shown in Table 5.11-4, Existing Study Area Roadway Segments Volume and LOS. The existing intersection traffic counts for these 19 roadway segments were compiled from a variety of sources, including: traffic counts conducted by Fehr and Peers in September 2012, the June 2011 Los Alamitos Boulevard Corridor Traffic Study, and the March 2011 I-605 Interchange Study (see the Transportation Study in Appendix G of this DEIR for additional information on traffic counts).

The LOS were calculated for key roadway segments in the City’s regional roadway system to evaluate existing traffic conditions. Table 5.11-4 presents the daily traffic volume and LOS operations on study roadway segments. As shown below, all of the existing roadway segments currently operate at an acceptable LOS of D or better.

<table>
<thead>
<tr>
<th>Table 5.11-4</th>
<th>Existing Study Area Roadway Segments Volume and LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Roadway</strong></td>
<td><strong>Cross-section</strong></td>
</tr>
<tr>
<td>Los Alamitos Boulevard</td>
<td>Between North City Limits and Cerritos Avenue</td>
</tr>
<tr>
<td></td>
<td>Between Cerritos Avenue and Katella Avenue</td>
</tr>
<tr>
<td></td>
<td>Between Katella Avenue and Farquhar Avenue</td>
</tr>
<tr>
<td></td>
<td>Between Farquhar Avenue and Orangewood Avenue</td>
</tr>
<tr>
<td></td>
<td>Between Orangewood Avenue and Bradbury Road</td>
</tr>
<tr>
<td></td>
<td>Between Bradbury Road and St. Cloud Drive</td>
</tr>
<tr>
<td>Katella Avenue</td>
<td>Between I-605 and Los Alamitos Boulevard</td>
</tr>
<tr>
<td></td>
<td>Between Los Alamitos Boulevard and Bloomfield Street</td>
</tr>
<tr>
<td></td>
<td>Between Bloomfield Street and Lexington Drive</td>
</tr>
</tbody>
</table>
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Table 5.11-4 Existing Study Area Roadway Segments Volume and LOS

<table>
<thead>
<tr>
<th>Roadway</th>
<th>Cross-section</th>
<th>Classification</th>
<th>Traffic Volume</th>
<th>V/C</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Lexington Drive and Walker Street</td>
<td>Smart Street</td>
<td></td>
<td>45,890</td>
<td>0.76</td>
<td>C or Better</td>
</tr>
<tr>
<td>Bloomfield Street</td>
<td>Between Katella Avenue and Cerritos Avenue</td>
<td>Secondary</td>
<td>14,163</td>
<td>0.59</td>
<td>C or Better</td>
</tr>
<tr>
<td></td>
<td>Between Cerritos Avenue and Ball Road</td>
<td>Secondary</td>
<td>12,471</td>
<td>0.52</td>
<td>C or Better</td>
</tr>
<tr>
<td></td>
<td>Between Farquhar Avenue and Katella Avenue</td>
<td>Local</td>
<td>2,925</td>
<td>0.21</td>
<td>C or Better</td>
</tr>
<tr>
<td>Cerritos Avenue</td>
<td>Between I-605 and Los Alamitos Boulevard</td>
<td>Primary</td>
<td>29,391</td>
<td>0.82</td>
<td>D</td>
</tr>
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<td></td>
<td>Between Los Alamitos Boulevard and Bloomfield Street</td>
<td>Primary</td>
<td>29,932</td>
<td>0.83</td>
<td>D</td>
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<td></td>
<td>Between Bloomfield Street and Lexington Drive</td>
<td>Primary</td>
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<td>C or Better</td>
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<td>Lexington Drive</td>
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<td>Local</td>
<td>5,671</td>
<td>0.41</td>
<td>C or Better</td>
</tr>
</tbody>
</table>

Source: Fehr and Peers 2014.
1 V/C represents the volume to capacity ratio.

Bicycle Facilities

The bicycle network in the study area consists of dedicated bicycle paths, bicycle lanes, and bicycle routes. There are three classifications used when classifying bicycle facilities, namely:

- **Class I: Bike Path.** Provides a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians, with minimal interruption by motor vehicles. In Los Alamitos, a bike path currently runs along the Coyote Creek Bikeway adjacent to the San Gabriel River. There is also a quarter-mile bike path north of Oak Middle School, connecting Oak Street with the Coyote Creek Bikeway. Within Rossmoor, a Class I Bike Path is in Rossmoor Park and along Wallingsford Road connecting Katella Avenue to Hedwig/Foster Road.
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- **Class II: Bike Lane.** Provides a preferential right-of-way designated and striped for the exclusive or semiexclusive use of bicycles, with some allowances for vehicle parking. Existing bike lanes exist along Bloomfield Street from the northern City limit to Katella Avenue in both directions of travel and on Ball Road from Kaylor Avenue to the western City limit. A Class II Bike Lane continues from Rossmoor Park along the entire length of Foster Road to the southern end of Rossmoor.

- **Class III: Bike Route.** Provides a route designated by signs or permanent pavement markings that are shared with either pedestrians or motorists. Bike routes exist along Bloomfield Street north of Ball Road past the northern City limit, and along Ball Road through the City limits.

Figure 5.11-3, *Existing and Planned Bicycle and Pedestrian Facilities*, identifies existing and proposed bicycle facilities in the study area.

**Pedestrian Facilities**

Pedestrian facilities in Los Alamitos consist of sidewalks and crosswalks. Sidewalks are generally provided throughout the City. Some locations provide a wide sidewalk with a comfortable amount of space between the sidewalk and roadway edge. Other locations provide a sidewalk immediately adjacent to the edge of the roadway, with some narrowed due to past roadway widenings.

The signalized intersections in the City of Los Alamitos all have crosswalks on all approaches with the exception of:

- Katella Avenue and Interstate 605
- Carbon Creek Channel and Bloomfield Street

Having crosswalks on all approaches to the signalized intersections allows pedestrians the choice of where to cross and provides for good pedestrian access. Figure 5.11-3 also identifies the crosswalks available in the study area. The all-way and side-street stop-controlled intersections in the City have a mix of crosswalks on all, some, and no approaches. At many of the side-street stop-controlled intersections, crosswalks are only provided parallel to the major roadway (not across it).

Overall, the City and Rossmoor provide adequate infrastructure for bicycles and pedestrians. In many places, however, biking and walking environments are not pleasant and do not encourage walking or biking—especially along larger roadways. Given the family-oriented nature of both communities, the large number of children and schools, and the desire for a walkable downtown, a number of improvements are identified to increase the community's safety and quality of life.

**Transit Facilities**

Public transit is beneficial in a number of ways. It provides transportation for groups not having access to vehicles or who choose not to drive. Public transit also provides relief to a city's traffic network, because people who are not driving individual vehicles are not contributing to traffic congestion.
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Transit service in the City and SOI is provided by OCTA. Local bus routes provide service along Los Alamitos Boulevard, Bloomfield Street, Katella Avenue, and Cerritos Avenue. In 2010, OCTA also planned a bus rapid transit route (BRT) along Katella Avenue. Subsequent budget cuts postponed these plans indefinitely, and the study area will continue to be served only by local bus service. Figure 5.11-4, *Existing Transit Facilities*, shows existing bus routes and bus stops in Los Alamitos. The five lines are described in detail:

- **Route 42/42A** generally runs east–west, providing service from Seal Beach to Orange. The major streets of service are Los Alamitos Boulevard, Lincoln Avenue, and Tustin Street. Service is generally provided at 20-minute headways.

- **Route 46** generally runs east–west, providing service from Los Alamitos to Orange. The major streets of service are Ball Road and Tustin Street. In the study area, Route 46 only provides service in the eastbound direction. Service is generally provided at 30-minute headways.

- **Route 50** generally runs east–west, providing service from Long Beach to Orange. The major streets of service are Studebaker Road, Katella Avenue, and Tustin Street. In the study area, Route 50 provides regular service in both directions. Service is generally provided at 30-minute headways.

- **Route 211** is an express route that generally runs north–south via I-405, providing service between Seal Beach and Irvine. Route 211 travels along Lampson Avenue through the study area. Service is generally provided at 30-minute headways.

- **Route 701** is an express route that generally runs north–south via I-405 and I-605, providing service between Huntington Beach and Downtown Los Angeles. Route 701 travels along Lampson Avenue and Los Alamitos Boulevard through the study area. Service headways range from 20 to 50 minutes.

**Railroad Facilities**

There are no passenger rail lines through the City of Los Alamitos. The nearest are west of the City near Long Beach (Metro Blue Line) and north of the city near Norwalk and Santa Fe Springs (Metro Green Line). Buena Park offers the closest Metrolink Station (Orange County Line) and Amtrak service (Pacific Surfliner). Right-of-way (ROW) previously used by the Southern Pacific Railroad is found in various parts of the City. In the planned industrial area south of Cerritos Avenue between Los Alamitos Boulevard and Bloomfield Street, the ROW has been reused for operations and access by the industrial businesses. The ROW north of Katella Avenue between Lexington Drive and Bloomfield Street has and will continue to be slated for a Class I Trail.

**Aviation Facilities**

The Los Alamitos Army Airfield (AAF) is a military airport within the JFTB and not open to the public. The AAF contains two runways that require permission to land. Approaches and departures at AFF have specific flight routes to assist in noise abatement. Typically, flights are only allowed to arrive/depart from the north, south, and east along routes that avoid flying over homes. No public airport facilities exist in the City.
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Figure 5.11-3 Existing and Proposed Bicycle and Pedestrian Facilities

- **Bikeway Access Point**
- **Pedestrian Bridges**

**Existing Bicycle Facilities**
- Class I
- Class II
- Class III

**Proposed Bicycle Facilities**
- Class I
- Class II
- Class III

**Existing Crosswalks**
- Both N/S and E/W
- Either N/S or E/W

- City Boundary
- Sphere of Influence
- Other City Boundaries

Source: Fehr & Peers, 2014
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Truck Routes

The goods or freight movement system in Los Alamitos consists of designated truck routes. The Los Alamitos Municipal Code (Chapter 10, Section 20) has language relating to truck routes. It defines weight restrictions, specifies the ability of trucks to enter areas not designated as truck routes, and defines the truck routes within the City. Roads in the study area that are truck routes include Katella Avenue, Los Alamitos Boulevard, Bloomfield Street, Cerritos Avenue, and Ball Road.

Vehicles weighing over four tons in gross vehicle weight are prohibited on Catalina Street between Los Alamitos Boulevard and Cherry Street, Pine Street between Florista Street and Catalina Street, Reagan Street between Katella Avenue and Catalina Street, and Cherry Street between Florista Street and Catalina Street.

5.11.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project could:

T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

T-5 Result in inadequate emergency access.

T-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold T-3
- Threshold T-4
- Threshold T-5
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These impacts will not be addressed in the following analysis.

5.11.3 Environmental Impacts

5.11.3.1 METHODOLOGY

Travel Demand Forecasting

The travel demand forecasting model for Orange County (OCTAM), version 3.4, was used to evaluate growth within the City of Los Alamitos and the region for 2010 and 2035 conditions. OCTAM incorporates land use and roadway network to “assign” traffic to the local roadway system. The model uses inputs such as land use, travel behavior, and roadway characteristics (number of lanes, speed, etc.) to estimate traffic demand on roadways. The model runs through numerous iterations as it estimates traffic congestion on certain segments and reroutes traffic to other roadways that show a time savings for that trip. OCTAM was developed and is maintained by OCTA for use in preparing regional transportation studies.

OCTAM incorporates the latest available land use forecasts for Orange County: Orange County Projections 2012. As part of the forecasting process, the socioeconomic data for the City of Los Alamitos was updated to reflect the existing and proposed project conditions. Land use information for buildout of the City was incorporated in the model’s traffic analysis zones (TAZs) in the City and SOI. Land uses for TAZs in the City and SOI were modified according to population, employment, and households forecasts.

The OCTAM future roadway network assumptions incorporated into the travel demand model are consistent with the SCAG RTP’s funded roadway projects list, the needs identified by comparing the model results to Table 5.11-2. Additionally, the roadway network analyzed is consistent with the proposed General Plan Update. Specific roadway improvements that were assumed include:

- Los Alamitos was modeled as a four-lane facility north of Katella Avenue, consistent with the Corridors Plan (retaining the current four active lanes and all turning movements, but avoiding an increase to six active lanes).

- The I-605 and I-405 freeways assume new HOV lanes in each direction.

- Additional turn lanes per the required mitigation measures from the Medical Center Specific Plan EIR, including a westbound left-turn lane at the Los Alamitos Boulevard/Cerritos Avenue intersection.

Intersection Operations

Intersection operations for existing and 2035 conditions were evaluated with the Traffix 8.0 level of service software, which is consistent with the methodologies identified in the Intersection Capacity Utilization methodology identified by OCTA. There are no unsignalized study intersections.

The following assumptions were made in Traffix to conduct the analysis:
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- Saturation flow rate of 1,700 vehicles per hour per lane (vphpl) for all left turn lanes, through-lanes, and right turn lanes, except for exclusive right turn lanes that allow right turns on red, whose rate is 1,955 vphpl. These assumptions are consistent with the Orange County Congestion Management Program.

- Lost time factor of 0.05 seconds V/C.

- De facto right turn lanes were not assumed.

The traffic modeling methodology is discussed in more detail in the Transportation Study (see Appendix G).

Future Projects under the General Plan Update

The study area for the General Plan Update is the City of Los Alamitos and its SOI. Impacts are based on OCTAM’s regional transportation model, which includes regional growth and growth from neighboring jurisdictions. It should be noted that traffic impact analyses are required for individual development projects in the City and would be required to identify the project study area where potential traffic impacts associated with the new development could occur. If the study area includes intersections and roadway segments outside the City of Los Alamitos, future development projects would be required to evaluate impacts based on the respective jurisdictions LOS standards. Furthermore, OCTA is required by state law to adopt and update a CMP for Orange County. One of the required elements is a program to analyze the impacts of land use decisions made by local jurisdictions on regional transportation systems, including an estimate of the costs associated with mitigating those impacts. The legislation also states that when the level of service fails to achieve the adopted standard, a deficiency plan must be adopted. OCTA has adopted a development mitigation program requirement for local agencies to comply with the deficiency plan provisions of the CMP legislation. Implementation of a development mitigation program is required of each local jurisdiction in the Orange County to maintain conformance with the Orange County CMP. Each development mitigation program must achieve the development contribution requirements established by OCTA. The CMP negated the need for individual project CMP traffic impact analysis, effectively making each jurisdiction responsible to account for the future year regional transportation needs within their City and pay for the improvements through their individual development impact fee programs.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

**Impact 5.11-1:** Buildout of the City of Los Alamitos plus cumulative growth in the region would generate an increase in traffic volumes that would impact levels of service at local area intersections and roadway segments. [Threshold T-1]

**Impact Analysis:** For the purpose of the following analysis, it is important to note that the proposed General Plan Update is a regulatory document that lays down the framework for future growth and development and does not directly result in development in and of itself. Before any development can occur in the City, all such development is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and state requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.
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The proposed roadway circulation network for the General Plan Update is shown in Figure 5.11-5, *Proposed General Plan Roadway Classifications*, which include the following classifications:

- **Smart Street.** A Smart Street is designated a six- to eight-lane divided roadway with a maximum right-of-way width of 122 feet. The Smart Street classification is estimated to have a design capacity of 72,000 vehicles per day in the eight-lane configuration and 60,000 vehicles per day in the six-lane configuration.

- **Major Arterial.** A major arterial is designated a six-lane divided roadway, with a typical right-of-way width of 120 feet. A major arterial is designed to accommodate a maximum of 54,000 daily vehicle trips.

- **Primary Arterial.** A primary arterial is designated a four-lane divided roadway with a typical right-of-way width of 100 to 120 feet. A primary arterial is designed to accommodate a maximum of 36,000 daily vehicle trips.

- **Secondary Arterial.** A secondary arterial is designated a four-lane undivided roadway with a typical right-of-way width of 80 feet. A secondary arterial is designed to accommodate a maximum of 24,000 daily vehicle trips.

**General Plan Buildout Intersection LOS**

The LOS was calculated for key study intersections with the future intersection lane configurations to evaluate General Plan Update traffic conditions. As previously described, LOS “D” is the maximum acceptable level of congestion at any intersection in the City of Los Alamitos.

Table 5.11-5, *General Plan Update 2035 Study Area Intersection LOS*, summarizes the LOS results at the study intersections. Figures 5.11-6a and 5.11-6b, *General Plan Buildout Peak Hour Intersection Traffic Volumes and Lane Configurations*, presents the General Plan Update traffic volumes and lane configurations at the study intersections.

The results of the intersection assessment indicate that three of the study intersections would not operate within acceptable LOS standards during at least one peak hour:

- Los Alamitos Boulevard at Katella Avenue: LOS E during the AM peak hour
- Bloomfield Street at Cerritos Avenue: LOS F in the AM peak hour and LOS E in the PM peak hour
- Wallingsford Road/ Walnut Street at Katella Avenue: LOS F in the AM peak hour

The proposed intersection improvements required to meet acceptable LOS standards would be difficult to achieve due to right-of-way constraints at the intersections of Los Alamitos Boulevard at Katella Avenue and Wallingsford Road/Walnut Street at Katella Avenue. Consequently, implementation of the General Plan and expected increases in regional traffic growth would result in a significant impact these three intersections.
## Table 5.11-5  General Plan Update 2035 Study Area Intersection LOS

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<th>No.</th>
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<th></th>
<th>PM Peak</th>
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<td>Existing</td>
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<td>V/C (Delay)1</td>
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<td>V/C (Delay)1</td>
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<td>1</td>
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<td>4</td>
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<td>5</td>
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<td>B</td>
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</table>

Source: Fehr and Peers 2014

Notes: Intersections operating below acceptable LOS standards are noted in **bold**.

The analysis in this study, which is consistent with OCTA methodologies, is not able to show the benefits (safety or operationally) of limiting the pedestrian-bicycle conflicts at the study intersections. Intersection capacities can increase by up to 10 percent if pedestrians do not conflict with vehicles; additionally, safety is dramatically improved since the conflict points of at-grade crossings are eliminated.

1. V/C represents the volume to capacity ratio.

2. Delay is presented since this is a Caltrans intersection and the Caltrans comment letter requested methodologies consistent with the Highway Capacity Manual (HCM).
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General Plan Buildout Roadway Segment LOS

The LOS was calculated for key roadway segments in the City’s regional roadway system to evaluate General Plan Update traffic conditions. According to the City’s recommended circulation policies, LOS “D” is the minimum acceptable level of congestion on a daily basis for any classified roadway. Table 5.11-6, General Plan Update 2035 Study Area Roadway Segments Volume and LOS, shows the forecast traffic volumes, proposed roadway classifications, and respective LOS.

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<th>Roadway</th>
<th>Cross-section</th>
<th>Proposed Classification</th>
<th>Traffic Volume</th>
<th>V/C(^1)</th>
<th>LOS</th>
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<th>V/C(^1)</th>
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<td>26,130</td>
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<td>Major Highway</td>
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<td>D</td>
<td>45,770</td>
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<td>D</td>
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<td>Between Farquhar Avenue and Orangewood Avenue</td>
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<td>Major Highway</td>
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<td>42,240</td>
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<td>Between Bradbury Road and St. Cloud Drive</td>
<td>Major Highway</td>
<td>40,805</td>
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</table>

\(^1\) Traffic Volume per Lane (V/C)
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Table 5.11-6  General Plan 2035 Study Area Roadway Segments Volume and LOS

<table>
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<tr>
<th>Roadway</th>
<th>Cross-section</th>
<th>Proposed Classification</th>
<th>Traffic Volume</th>
<th>V/C</th>
<th>LOS</th>
<th>Traffic Volume</th>
<th>V/C</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2035</td>
<td></td>
<td></td>
<td></td>
<td>2035</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cerritos Avenue</td>
<td>Between I-605 and Los Alamitos Boulevard</td>
<td>Primary</td>
<td>29,391</td>
<td>0.82</td>
<td>D</td>
<td>33,280</td>
<td>0.92</td>
<td>E</td>
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<tr>
<td></td>
<td>Between Los Alamitos Boulevard and Bloomfield Street</td>
<td>Primary</td>
<td>29,932</td>
<td>0.83</td>
<td>D</td>
<td>29,940</td>
<td>0.83</td>
<td>D</td>
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<tr>
<td></td>
<td>Between Bloomfield Street and Lexington Drive</td>
<td>Primary</td>
<td>24,059</td>
<td>0.67</td>
<td>C or Better</td>
<td>25,520</td>
<td>0.71</td>
<td>C or Better</td>
</tr>
<tr>
<td>Farquhar Avenue</td>
<td>Between Los Alamitos Boulevard and Bloomfield Street</td>
<td>Local</td>
<td>5,525</td>
<td>0.39</td>
<td>C or Better</td>
<td>5,530</td>
<td>0.40</td>
<td>C or Better</td>
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<tr>
<td></td>
<td>Between Bloomfield Street and Lexington Drive</td>
<td>Local</td>
<td>3,762</td>
<td>0.27</td>
<td>C or Better</td>
<td>3,770</td>
<td>0.27</td>
<td>C or Better</td>
</tr>
<tr>
<td>Lexington Drive</td>
<td>Between Farquhar Avenue and Katella Avenue</td>
<td>Local</td>
<td>5,671</td>
<td>0.41</td>
<td>C or Better</td>
<td>5,680</td>
<td>0.41</td>
<td>C or Better</td>
</tr>
</tbody>
</table>

Source: Fehr and Peers 2014
Note: Segments operating below acceptable LOS standards are noted in bold.

As shown in Table 5.11-6, all of the roadways in the City are forecast to operate at LOS “D” or better, with the exception of the following roadway segments:

- Katella Avenue
  - Between I-605 and Los Alamitos Boulevard: LOS F
  - Between Los Alamitos Boulevard and Bloomfield Street: LOS F
  - Between Bloomfield Street and Lexington Drive: LOS E
  - Between Lexington Drive and Walker Street: LOS E

- Cerritos Avenue
  - Between I-605 and Los Alamitos Boulevard: LOS E

The improvements required to meet acceptable LOS standards on the proposed roadway segment may be difficult to achieve due to right-of-way constraints along Katella Avenue and Cerritos Avenue. Consequently, implementation of the General Plan Update and expected increases in regional traffic growth would result in a significant impact to the roadway segments identified above.

Summary

Three intersections and two roadways in the City would exceed the City’s LOS standards. The Mobility and Circulation Element includes the following policies to ensure efficient use of the City’s circulation network:
Policy 1.4 Level of Service - Maintain a Level of Service (LOS) “D” or better along all City arterials and at intersections during peak hours, except under the following circumstances:

- There is a desire to prioritize pedestrians and/or bicyclists over vehicles
- Insufficient ROW exists
- The intersection or roadway is considered built out

The following intersections and roadways are exempt from the LOS D standard:

- Katella Avenue and Los Alamitos Boulevard intersection
- Katella Avenue and Walnut Street/Wallingsford Road intersection
- Bloomfield Street and Cerritos Avenue intersection
- Katella Avenue (between Interstate 605 and Walker Street)
- Cerritos Avenue (between Interstate 605 and Los Alamitos Boulevard)

Policy 1.7 Fair share of improvements - Require new development to pay a fair share of needed transportation improvements based on a project’s impacts to the multimodal transportation network.

Policy 1.4 of the General Plan Update identifies these three intersections and two roadways as “exempt,” but based on the current General Plan, the City’s current standard of LOS “D” for these segments, and their elevated levels of congestion, impacts would be significant.

Impact 5.11-2: Project-related trip generation in combination with existing and proposed cumulative development would not result in designated road and/or highways exceeding the congestion management agency service standards. [Threshold T-2]

Impact Analysis: The Orange County CMP designates standards at CMP intersections, and requires that all intersections operate at LOS E or better. Katella Avenue at the I-605 northbound ramps falls under the jurisdiction of Los Alamitos and is designated a CMP location. Katella Avenue is also identified on the CMP highway system, although there are no specific CMP requirements for roadway segment assessment. Since Los Alamitos has proposed a stricter LOS requirement than the CMP (LOS “D”), the LOS standard for the City was used to evaluate all study locations, including the CMP intersection of Katella Avenue at the I-605 northbound ramps. As shown in Table 5.11-5, the intersection of Katella Avenue and the I-605 northbound ramps is not projected to exceed the CMP threshold of LOS E at General Plan buildout.
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Figure 5.11-5 Proposed General Plan Roadway Classifications

Source: Fehr & Peers, 2014
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### Figure 5.11-6a General Plan Buildout Peak Hour Intersection Traffic Volumes and Lane Configurations

<table>
<thead>
<tr>
<th>Study Intersections</th>
<th>Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Los Alamitos Blvd &amp; Cerritos Ave</td>
<td>City of Los Alamitos</td>
</tr>
<tr>
<td>2. Los Alamitos Blvd &amp; Katella Blvd</td>
<td>Community of Rossmoor</td>
</tr>
<tr>
<td>3. Los Alamitos Blvd &amp; Farquhar Ave</td>
<td></td>
</tr>
<tr>
<td>4. Los Alamitos Blvd &amp; Orangewood Ave</td>
<td></td>
</tr>
<tr>
<td>5. Los Alamitos Blvd &amp; Bradbury Rd</td>
<td></td>
</tr>
<tr>
<td>6. Los Alamitos Blvd &amp; St. Cloud Dr</td>
<td></td>
</tr>
<tr>
<td>7. Bloomfield St &amp; Ball Rd</td>
<td></td>
</tr>
<tr>
<td>8. Bloomfield St &amp; Cerritos Ave</td>
<td></td>
</tr>
</tbody>
</table>

#### Lane Configurations

- **AM (PM)** Peak Hour Traffic Volume
- **Traffic Signal**
- **Study Intersections**

### Traffic Volumes

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM (PM) Traffic Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Los Alamitos Blvd &amp; Cerritos Ave</td>
<td>170 (160) 1,200 (1,100) 280 (250)</td>
</tr>
<tr>
<td>2. Los Alamitos Blvd &amp; Katella Blvd</td>
<td>20 (70) 830 (1,110) 280 (260)</td>
</tr>
<tr>
<td>3. Los Alamitos Blvd &amp; Farquhar Ave</td>
<td>60 (120) 1,490 (2,280) 400 (600)</td>
</tr>
<tr>
<td>4. Los Alamitos Blvd &amp; Orangewood Ave</td>
<td>120 (100) 380 (300)</td>
</tr>
<tr>
<td>5. Los Alamitos Blvd &amp; Bradbury Rd</td>
<td>30 (10) 40 (10) 60 (50)</td>
</tr>
<tr>
<td>6. Los Alamitos Blvd &amp; St. Cloud Dr</td>
<td>120 (80) 570 (310)</td>
</tr>
<tr>
<td>7. Bloomfield St &amp; Ball Rd</td>
<td>10 (20) 10 (20) 60 (170)</td>
</tr>
<tr>
<td>8. Bloomfield St &amp; Cerritos Ave</td>
<td>80 (110) 900 (730) 240 (180)</td>
</tr>
</tbody>
</table>

#### Turn Lane

- **Miles**

**Source:** Fehr & Peers, 2014

**Date:** May, 2014
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### Figure 5.11-6b General Plan Buildout Peak Hour Intersection Traffic Volumes and Lane Configurations

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM (PM) Traffic Volume</th>
<th>Traffic Signal</th>
<th>Study Intersections</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Bloomfield St &amp; Katella Ave</td>
<td>240 (300)</td>
<td>0 (10)</td>
<td>30 (10)</td>
</tr>
<tr>
<td>10. Lexington Ave &amp; Katella Ave</td>
<td>150 (400)</td>
<td>0 (10)</td>
<td>30 (10)</td>
</tr>
<tr>
<td>11. Walker St &amp; Katella Ave</td>
<td>140 (70)</td>
<td>0 (10)</td>
<td>30 (10)</td>
</tr>
<tr>
<td>12. Wallingsford Rd/Walnut St &amp; Katella Av</td>
<td>220 (300)</td>
<td>10 (10)</td>
<td>30 (10)</td>
</tr>
<tr>
<td>13. Los Alamitos Blvd &amp; Rossmoor Ctr Wy</td>
<td>110 (210)</td>
<td>10 (10)</td>
<td>30 (10)</td>
</tr>
<tr>
<td>14. I-605 NB Ramps &amp; Katella Ave</td>
<td>40 (340)</td>
<td>10 (10)</td>
<td>30 (10)</td>
</tr>
</tbody>
</table>

**Legend:**
- AM (PM) Peak Hour Traffic Volume
- Traffic Signal
- Study Intersections

**Project Area:**
- City of Los Alamitos
- Community of Rossmoor

Source: Fehr & Peers, 2014

05/30/2014
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Impact 5.11-3: The General Plan Update includes policies, plans, and programs for alternative transportation. [Threshold T-6]

Impact Analysis: The Mobility and Circulation Element policies support public transit, bicycle improvements, and improvements to the pedestrian facilities by closing gaps in the network, expanding the network, and coordinating with regional agencies. The vast majority of streets and roadways in the plan area are not proposed to be redesigned during the lifespan of the proposed General Plan Update. The Mobility and Circulation Element focuses on targeted minor changes in select locations that will increase mobility, access and safety in the City. These include new bicycle and pedestrian facilities, raised colored and textured intersections, traffic-calming measures, and pedestrian bridges (see below). A notable exception to the general lack of circulation changes under the General Plan Update is the redesign of Los Alamitos Boulevard. Consistent with concepts explored in the Commercial Corridors Plan, the Mobility and Circulation Element proposes that the roadway be narrowed to create a more walkable downtown environment. Policies in the General Plan seek to redesign Los Alamitos Boulevard north of Katella Avenue to maintain four through lanes and turning movements at intersections while converting the remaining surplus space into an expanded parkway. Curb extensions would be installed at intersections to reduce crossing distance. On-street parking would be restricted north of Sausalito Street until after 9 AM to provide sufficient queuing space for vehicles turning right onto Cerritos to access the high school in the morning.

The complete streets network would accommodate all users of the system, and the City’s complete streets network is based on the type of user. Specifically, the following policies demonstrate that the Mobility and Circulation Element addresses the needs of all users of the City’s transportation network:

- **Policy 1.1 Multimodal network** - The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrians, bicyclists, transit riders, freight, and motorists.

- **Policy 1.2 Transportation decisions** - Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists of all ages and abilities.

- **Policy 1.5 Multimodal LOS** - Monitor the evolution of multimodal level of service (MMLOS) standards. The City may adopt MMLOS standards when appropriate.

The City’s network is broken into three types of facilities—pedestrian, bicycle, and public transit. The proposed General Plan Update would support plans and programs for alternative transportation, as follows:

**Bicycle Routes**

Future bike routes and bike lanes are proposed on major arterials and collectors throughout Los Alamitos according to the OCTA Commuter Bikeways Strategic Plan. This plan identifies current bicycle facilities throughout the City and provides policy and implementation strategies for enhancing the networks. The plans are intended to be cohesive and integrated—a comprehensive pedestrian and bicycle system. The City proposes to enhance the bicycle network by providing additional on- and off-street bike lanes. In addition, several policies are included in the proposed General Plan to enhance bicycle connectivity:
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- **Policy 3.1 Commuting to school** - Maximize the number of students walking, biking, and riding the bus to and from school.

- **Policy 3.2 Active trips** - Establish, maintain, and improve bicycle and pedestrian systems to promote active trips to schools and parks.

- **Policy 4.2 Site design** - Require physical designs for new development that provide convenience and security to pedestrians, bicyclists, and transit users.

- **Policy 4.3 Intersections** - Improve the safety and comfort of pedestrian and bicycle crossings at intersections.

- **Policy 4.4 Bicycle and pedestrian trails** - Convert railroad rights-of-way, former rights-of-way, alleyways, and areas along storm drain channels into pedestrian and bicycle trails.

- **Policy 4.5 Regional connections** - Connect bicycle and pedestrian trails to local and regional trails in adjacent jurisdictions.

- **Policy 4.6 Bicycle and pedestrian wayfinding** - Provide bicycle and pedestrian network wayfinding and information through signs, street markings, or other technologies.

- **Policy 5.6 Bicycle parking** - Encourage safe, secure, attractive, and convenient bicycle parking, especially in the downtown and at schools.

**Pedestrian Facilities**

The pedestrian facilities and pedestrian connectivity throughout the City is well developed. However, there is a lack of connectivity in and around the downtown area and the adjacent medical center. In order to reduce congestion at major intersections and increase safety and access for the community’s schoolchildren, the Mobility and Circulation Element includes pedestrian bridges across the City’s major arterial roadways to connect schools with residential neighborhoods. Figure 5.11-3 shows conceptual locations for pedestrian/bicycle bridges at three locations:

- Katella Avenue west of Oak Street (connecting Rossmoor with Oak Middle School)

- Katella Avenue east of Bloomfield Street (connecting Apartment Row with Los Alamitos Elementary School, McAuliffe Middle School, and Laurel Park)

- Cerritos Avenue east of Los Alamitos Boulevard (connecting central Los Alamitos with Los Alamitos High School)
The pedestrian bridges would increase safety and reduce congestion. In addition, Policies 4-2 through 4-6, Policies 1-1 through 1-2, and Policies 3.1 through 3-2, above, and the additional policies below of the proposed General Plan enhance pedestrian connectivity:

- **Policy 3.3 Pedestrian bridges** - Invest in the construction of pedestrian bridges at key intersections near schools to enhance safety and reduce congestion.

- **Policy 4.1 Walkable business districts** - Create pedestrian-friendly business districts by expanding and improving spaces for walking along and crossing business districts.

**Public Transit**

As discussed above, public transportation in the City of Los Alamitos consists of public bus service operated by OCTA. Implementation of the proposed General Plan Update would promote the use of alternative transportation modes. Policy 4-2 and the additional policies below promote the use of public transit:

- **Policy 4.7 Transit stops** - Improve and maintain safe, clean, comfortable, well-lit, and rider-friendly transit stops that are well marked and visible to motorists.

- **Policy 4.8 Bus rapid transit** - Plan for bus rapid transit along Katella Avenue, with an emphasis for service to the Los Alamitos Medical Center and Downtown Los Alamitos.

**Summary**

The Mobility and Circulation Element policies support public transit, bicycle improvements, and improvements to the pedestrian facilities by closing gaps in the network, expanding the network, and coordinating with regional agencies. They are also consistent with regional plans, such as the OCTA Commuter Bikeways Strategic Plan. Additionally, these policies support implementation of complete streets, through a layered network approach, consistent with the state’s Complete Streets Act. Therefore, they are consistent with the existing adopted policies, plans and programs regarding public transit, bicycle, or pedestrian facilities.

**5.11.4 Applicable General Plan Policies**

**Mobility and Circulation Element**

- **Policy 1.1 Multimodal network** - The City shall plan, design, operate, and maintain the transportation network to promote safe and convenient travel for all users: pedestrians, bicyclists, transit riders, freight, and motorists.

- **Policy 1.2 Transportation decisions** - Decisions should balance the comfort, convenience, and safety of pedestrians, bicyclists, and motorists of all ages and abilities.
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- **Policy 1.3 Downtown connectivity** - Downtown Los Alamitos shall be safely and comfortably accessible by car, by bike, or on foot while maintaining Los Alamitos Boulevard as a four-lane facility with sufficient space for turning movements and queuing space for school access.

- **Policy 1.4 Level of Service** - Maintain a Level of Service (LOS) “D” or better along all City arterials and at intersections during peak hours, with the following exceptions:
  - There is a desire to prioritize pedestrians and/or bicyclists over vehicles
  - Insufficient ROW exists
  - The intersection or roadway is considered built out

  The following intersections and roadways are exempt from the LOS D standard:
  - Katella Avenue and Los Alamitos Boulevard intersection
  - Katella Avenue and Walnut Street/Wallingsford Road intersection
  - Bloomfield Street and Cerritos Avenue intersection
  - Katella Avenue (between Interstate 605 and Walker Street)
  - Cerritos Avenue (between Interstate 605 and Los Alamitos Boulevard)

- **Policy 1.5 Multimodal LOS** - Monitor the evolution of multimodal level of service (MMLOS) standards. The City may adopt MMLOS standards when appropriate.

- **Policy 1.6 Access management** - Minimize access points and curb cuts along arterials and within 200 feet of an intersection to improve traffic flow and safety. Eliminate and/or consolidate driveways when new development occurs or when traffic operation or safety warrants.

- **Policy 1.7 Fair share of improvements** - Require new development to pay a fair share of needed transportation improvements based on a project’s impacts to the multimodal transportation network.

- **Policy 2.1 Traffic calming** - Discourage cut-through traffic in residential neighborhoods through the application of traffic-calming measures.

- **Policy 2.2 Joint Forces Training Base** - Coordinate with JFTB administration to provide additional vehicular access points from major arterials to minimize travel through residential areas.

- **Policy 2.3 Truck routes** - Plan and designate truck routes that minimize truck traffic through or near residential areas.

- **Policy 3.1 Commuting to school** - Maximize the number of students walking, biking, and riding the bus to and from school.
Policy 3.2 Active trips - Establish, maintain, and improve bicycle and pedestrian systems to promote active trips to schools and parks.

Policy 3.3 Pedestrian bridges - Invest in the construction of pedestrian bridges at key intersections near schools to enhance safety and reduce congestion.

Policy 4.1 Walkable business districts - Create pedestrian-friendly business districts by expanding and improving spaces for walking along and crossing business districts.

Policy 4.2 Site design - Require physical designs for new development that provide convenience and security to pedestrians, bicyclists, and transit users.

Policy 4.3 Intersections - Improve the safety and comfort of pedestrian and bicycle crossings at intersections.

Policy 4.4 Bicycle and pedestrian trails - Convert railroad rights-of-way, former rights-of-way, alleyways, and areas along storm drain channels into pedestrian and bicycle trails.

Policy 4.5 Regional connections - Connect bicycle and pedestrian trails to local and regional trails in adjacent jurisdictions.

Policy 4.6 Bicycle and pedestrian wayfinding - Provide bicycle and pedestrian network wayfinding and information through signs, street markings, or other technologies.

Policy 4.7 Transit stops - Improve and maintain safe, clean, comfortable, well-lit, and rider-friendly transit stops that are well marked and visible to motorists.

Policy 4.8 Bus rapid transit - Plan for bus rapid transit along Katella Avenue, with an emphasis for service to the Los Alamitos Medical Center and Downtown Los Alamitos.

Policy 5.1 Parking tools - Support innovative parking techniques to maximize parking efficiency throughout the City, especially in the Downtown, including:

- Shared parking
- Unbundled parking
- In-lieu parking fees
- Parking management plans
- Parking districts

Policy 5.2 Additions to existing uses - As a component of remodeling where square footage is added, require commercial, business, and industrial centers to provide adequate on-site parking. (Note: This could have substantial impacts on small lots/businesses in Los Alamitos who may struggle to meet
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current parking standards. Additionally, should outdoor dining be included (and thus discouraged) or excluded and thus encouraged?)

- **Policy 5.3 Public facilities** - Provide adequate on-site parking at public facilities for daily and event-based activities, especially in the downtown and medical center areas.

- **Policy 5.4 Centralized parking** - Design and establish large parking facilities and parking management districts to connect to and serve multiple activity centers.

- **Policy 5.5 Automobile parking demand** - Reduce automobile parking demand by improving public transit, bicycle, and pedestrian mobility.

- **Policy 5.6 Bicycle parking** - Encourage safe, secure, attractive, and convenient bicycle parking, especially in the downtown and at schools.

- **Policy 5.7 Motorcycle and scooter parking** - Motorcycle and scooter parking. Encourage businesses to provide parking spaces specifically designed for motorcycles and motorized scooters.

### 5.11.5 Existing Regulations and Standard Conditions

**State and Regional Regulations**

- The California Complete Streets Act (Assembly Bill 1358)
- SB 375 Sustainable Communities and Climate Protection Act
- Orange County Transportation Authority (OCTA) Congestion Management Plan

**City of Los Alamitos Municipal Code**

- Los Alamitos Municipal Code, Chapter 10.20, Truck Routes and Weight Limits
- Los Alamitos Municipal Code, Chapter 10.24, Parking

### 5.11.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.11-2 and 5.11-3.

Without mitigation, the following impacts would be potentially significant:

- **Impact 5.11-1** Buildout of the City of Los Alamitos General Plan Update plus cumulative growth in the region would generate an increase in traffic volumes that would impact levels of service at local area intersections and roadway segments.
5.11.7 Mitigation Measures

**Impact 5.11-1**

*Intersections*

The Transportation Study (see Appendix G to the DEIR) identifies several improvements to intersections. However, sufficient right-of-way is not available to implement the necessary mitigation. Furthermore, the General Plan Update identifies the need for a balanced multimodal transportation network that meets the needs of all users of streets. Policy 1.4 of the General Plan Update strives to strike a balance with all users of the transportation network. Given the policy desires of the City and constraints at these intersections, additional improvements are considered infeasible, and these improvements were considered but rejected.

- For the intersection of Los Alamitos Boulevard and Katella Avenue to operate at an acceptable level, an additional eastbound through-lane along Katella Avenue would be needed. Given the right-of-way constraints at this location, the improvement is considered infeasible.

- For the intersection of Bloomfield Street and Cerritos Avenue to operate at an acceptable level, an additional westbound left-turn lane and westbound right-turn lane would be required along Cerritos Avenue. The improvements would require additional right-of-way along the school district property frontage. Given the right-of-way constraints at this location, the improvement is considered infeasible.

- For the intersection of Wallingsford Road/ Walnut Street and Katella Avenue to operate at an acceptable level, the northbound approach of Wallingsford Road would need to be widened, and an additional eastbound through-lane is required along Katella Avenue. However, given the right-of-way constraints on the northbound and eastbound approaches, these improvements are considered infeasible.

*Segments*

The Transportation Study (see Appendix G to the DEIR) identifies several improvements to the segments. Katella Avenue and Cerritos Avenue are built out, and the required right-of-way to achieve acceptable operations is not readily available. Given the constraints at these two roadways, additional improvements are considered infeasible, and these improvements were considered but rejected.

**5.11.8 Level of Significance After Mitigation**

**Impact 5.11-1**

Mitigation measures for the three intersections and two roadways are considered infeasible due to right-of-way constraints. Policy 1.4 of the General Plan Update identifies these intersections and roadways as “exempt”. Once the General Plan Update is adopted, these intersections and roadways would be exempt from the City’s LOS “D” standard. However, based on the current General Plan and the City’s current standards for these intersections and roadways, Impact 5.11-1 would be significant and unavoidable.
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5.11.9 References