

4.11 TRANSPORTATION AND TRAFFIC

A Transportation Impact Study (CCTC 2014) was prepared to evaluate the potential transportation impacts of the proposed project. The study was completed consistent with the requirements of the San Luis Bay Coastal Area Plan and the County Public Works Department. The results of the study are incorporated into the analysis below, and is provided in EIR Appendix G.

4.11.1 Existing Conditions

4.11.1.1 Roadway Network

Avila Beach and Port San Luis are accessed from US 101, San Luis Bay Drive, and Avila Beach Drive. Access to the Port is currently limited to Avila Beach Drive. Emergency evacuation via Diablo Canyon Road is recognized by the Harbor District, PG&E, the County Office of Emergency Services (County of San Luis Obispo 2014), and CAL FIRE (CAL FIRE 2002). Avila Beach is accessed via First Street, and the project site is accessed via Babe Lane. A description of the roadway network is provided below.

- US 101 is a north-south facility connecting Los Angeles to San Francisco. In the vicinity of the project it is a four-lane freeway with full access interchanges at Avila Beach Drive and San Luis Bay Drive. There is an auxiliary lane serving southbound traffic roughly between the San Luis Bay Drive and Spyglass Drive interchanges.
- Avila Beach Drive is an east-west arterial connecting US 101 with Port San Luis. Along the project frontage it consists of two lanes and is posted with a speed limit of 40 miles per hour (mph). Parking is allowed on portions of Avila Beach Drive.
- San Luis Bay Drive is an arterial roadway connecting US 101 to Avila Beach Drive, generally used for local trips and trips to and from the north on US 101.
- First Street is a collector roadway serving the downtown area of Avila Beach. The signalized intersection of First Street and Avila Beach Drive serves high volumes of pedestrians and cyclists and provides a controlled crossing location with dedicated pedestrian and bicycle phases.
- Babe Lane is a local road serving the project site. It is stop controlled where it intersects with Avila Beach Drive.

4.11.1.2 Pedestrian and Bicycle Facilities

Pedestrian facilities include sidewalks, crosswalks, multi-use paths, and pedestrian signals at signalized intersections. The First Street/Avila Beach Drive intersection provides pedestrian crosswalks and a pedestrian scramble phase. Bicycle facilities consist of multi-use paths separate from the roadway (Class I), on-street striped bike lanes (Class II), and signed bike routes (Class III). The Bob Jones City-to-the-Sea Trail is mostly a Class I multi-use path within Avila Beach. Avila Beach Drive is a Class III route east of San Luis Bay Drive, and is identified as a recreational route west of San Luis Bay Drive. San Luis Bay Drive is a Class III bike route.

4.11.1.3 Transit Services

The Avila Beach Trolley provides free fixed route service between Pismo Beach and Avila Beach on Friday evenings, and Saturdays, and Sundays during the spring, summer, and fall.

There is an existing Trolley stop within the Harford Pier parking lot. Weekend service is provided hourly between 10:00 a.m. and 6:00 p.m. during the summer, and between 10:00 a.m. and 4:00 p.m. in the spring and fall. The Trolley connects to the South County Transit network which serves the Five Cities area with four routes, and completes the full route each hour. The capacity of the Trolley is 29 persons. The San Luis Obispo Regional Transit Authority (RTA) provides regional fixed-route and dial-a-ride services to San Luis Obispo County. Route 10 serves the South County, with a stop in Pismo Beach. Transit bus capacity ranges from 32 to 38 passengers.

4.11.1.4 Avila Valley Circulation Study and Traffic Model

The Avila Valley Circulation Study laid the groundwork for a program to test the performance of the street system in the study area (County of San Luis Obispo 2009). By establishing a level of service standard more closely tied to the seasonality of the traffic demand, the County was able to focus on the normal demand. In February 1994, the County Board of Supervisors established a monitoring program for Avila area roads based on the average non-summer weekday peak-hour traffic volume. This monitoring program includes annual traffic counts during the month of May. These annual traffic counts are used to calculate the current level of service.

The current transportation model is a TP+ software model. The model links land use plans and densities to future traffic projections. Peak hour percentages used to convert the daily weekday segment and intersection volumes to peak hour volumes were calculated based on 2006 daily segment count data. That volume was then converted to a summer peak hour volume for the road segments and the key intersections. The weekday/weekend volumes were established using data collected by the County, which showed the relative difference in traffic volumes at several key locations. From these volumes factors were developed to adjust the daily traffic to reflect the typical summer weekend or holiday traffic volumes.

The maintenance of acceptable levels of service (LOS) for the Avila Valley and Avila Beach area streets is important for balancing future development with the reasonable level and scale of roadway improvements in the community. The County uses a LOS "C" as their acceptable standard for traffic impact studies. The County policy was established in 1995 through the adoption of an ordinance (County Ordinance 2702). The ordinance calls for the level of service to be based on the average weekday two-way volume for Avila Beach Drive and San Luis Bay Drive between the hours of 3:00 p.m. and 6:00 p.m. during the second week in May.

Previous studies attempted to acknowledge the wide range of traffic volumes experienced in the area during the summer months. This prompted the establishment of a level of service of "D" for the summertime weekends (County of San Luis Obispo 2009).

Table 4.11-1. Intersection Level of Service Thresholds

Signalized Intersections ¹		Stop Sign Controlled Intersections ²	
Control Delay (sec/veh*)	Level of Service	Control Delay (sec/veh*)	Level of Service
≤ 10	A	≤ 10	A
> 10 - 20	B	> 10 - 15	B
> 20 - 35	C	> 15 - 25	C

Table 4.11-1. Intersection Level of Service Thresholds

Signalized Intersections ¹		Stop Sign Controlled Intersections ²	
> 35 – 55	D	> 25 – 35	D
> 55 – 80	E	> 35 - 50	E
> 80	F	> 50	F

¹ Source: Exhibit 18-4 of the 2010 Highway Capacity Manual (HCM)

² Source: Exhibits 19-1 and 20-2 of the 2010 HCM

*sec/veh = seconds per vehicle

4.11.1.5 Seasonal Traffic

County policy acknowledges that there will be significantly higher peak hour traffic volumes on Avila Beach Drive during summer weekends than at other times of the year. In recognition of this condition, level of service calculations for Avila Beach Drive are based on non-summer weekday traffic volumes. Increases in seasonal traffic are addressed in the Avila Valley Circulation Study Update (County of San Luis Obispo 2013, 2009). The Avila area is a very attractive destination for recreational users due to the number of outdoor facilities and activities available in the area. The beach and port facilities, in particular, generate their peak use during the summer season on weekends. Traffic to/from these sites during non-summer months is typically less than the summer traffic, usually on the order of 21% less during a weekday and 20% less during a weekend. The non-summer weekday traffic volumes are consistently lower than summer weekday volumes. The distribution of traffic over a 24-hour period is a constraining factor on the transportation circulation system. The larger the peak condition for any time period, the greater the demand placed on roadway capacity. While the above comparisons are solely made for the major roadways, seasonal variations may differ slightly for internal roadways.

~~Typically, non-summer and summer/holiday traffic will vary during a typical week with Tuesday being the busiest weekday and Saturday being the busiest weekend day. This trait consistently occurs at several locations for both summer and non-summer conditions. While the percentage increase in summer weekend traffic over summer weekday traffic is significant at the major access routes to the beach area, the largest changes occur on streets in the town. Based on the 2006 traffic count Avila Beach Drive, between San Luis Bay Drive and San Luis Street, carried the largest two-way traffic volumes in the area, ranging from 8,800 vehicles per day during non-summer weekdays to over 16,400 vehicles per day on holiday/summer weekends (County of San Luis Obispo 2009). Traffic volumes for weekend/summer/holidays continue to grow. The Port Master Plan Final Program EIR applied a factor of 1.18 to account for summer weekend beach traffic.~~

The County has collected traffic volume data for a number of years. A permanent count station was established on Avila Beach Drive just west of San Luis Bay Drive which is counted annually in May. Traffic counts generally tally the number of vehicles on a per hour, per day, and per week basis. Based on counts conducted on June 17, 2010, average daily traffic on Avila Beach Drive west of San Luis Bay Drive was 13,495 trips, including 1,233 AM peak trips and 1,562 PM peak trips.

Typically, traffic varies during the week with Thursday and Friday being the busiest weekdays and Saturdays being the busiest weekend day. This trait consistently occurs at several locations

for both summer and non-summer conditions. While the percentage increase in summer weekend traffic over summer weekday traffic is significant at the major access routes to the beach area, the largest changes occur on streets in the town.

In addition to seasonal traffic, special events occurring with Avila Beach currently, and would continue to, contribute to congestion in the area.

4.11.1.6 Existing Traffic Conditions

Traffic counts for weekday PM peak hour conditions were collected at the study locations in May 2014 as set forth in the San Luis Bay Coastal Area Plan. Traffic counts on US 101 were obtained from SLOCOG's Highway 101 Mobility Study data. The intersection turning volumes at Avila Beach Drive/Babe Lane were derived from a nearby roadway segment count. The traffic count sheets are included in Appendix A of the traffic study (refer to Appendix G of this EIR).

Table 4.11-2 presents the LOS for the study intersections. Detailed calculation sheets and existing traffic volumes included in Appendix B of the transportation study (refer to Appendix G of the EIR).

Table 4.11-2. Existing PM Peak Hour Level of Service

Intersection	Delay (sec/veh*) ¹	Level of Service
Avila Beach Drive/Babe Lane	0.4 (12.3)	A (B)
Avila Beach Drive/First Street	6.7	A
Segment	Two-way Volume	Level of Service
Avila Beach Drive w/o San Luis Bay Drive	1,328	B
Segment	Density (pc/mi/ln**)	Level of Service
US 101 n/o San Luis Bay Drive Northbound	13.6	B
US 101 n/o San Luis Bay Drive Southbound	37.5	E
US 101 s/o San Luis Bay Drive Northbound	15.3	B
US 101 s/o San Luis Bay Drive Southbound	41.8	E

¹ HCM average control delay in seconds per vehicle. Delay for side street stop controlled intersection reported as average delay followed by worst approach delay in parenthesis.

*sec/veh = seconds per vehicle

**pc/mi/ln = passenger cars per mile per lane

Note: Unacceptable operations shown in **bold**

All of the study locations within Avila Beach operate at LOS B or better during the weekday PM peak hour. Both study segments of southbound Highway 101 operates at LOS E during the weekday PM peak hour, which is below Caltrans' desired LOS C service level. Table 4.13-3 summarizes the 95th percentile queues for the study intersections.

Table 4.11-3. Existing PM Peak Hour 95th Percentile Queues¹

Intersection	Movement	Storage Length (feet)	Existing Queue Length (feet)
Avila Beach Drive/Babe Lane	Southbound shared lane	> 300	3
Avila Beach Drive/First Street	Eastbound through	> 300	220
Avila Beach Drive/First Street	Northbound right	60	47

¹Queue length that would not be exceeded 95% of the time. Queues are reported only for critical movements.

The longest field observed queues occurred on the eastbound approach to the Avila Beach Drive/First Street intersection, which coincides with commuters departing from Diablo Canyon. The queue did not extend to the bridge during field observations and cleared in one signal cycle. The queues shown in Table 4.11-3 are consistent with field observations.

4.11.1.7 Port San Luis Parking

Parking use at the Port is largely dependent on the weather. During the warm summer months, weekend parking demand is at its highest with recreational fishermen, tourists, beach visitors and patrons of the local restaurants. The available parking at the Port begins to fill early in the morning with vehicles carrying customers of the sport fishing boats, commercial fishing crews and recreational fishermen with their vehicles and boat trailers. By mid-morning, tourists begin to arrive. By mid-afternoon, the fishermen have returned to the port and the parking lot is usually entirely full. A moderate percentage of fishermen patronize the restaurants and shops at the pier before loading up their boats and leaving. However, the afternoon is also the peak time for beach and pier use and a portion of these beach visitors use the port parking lot as well. Thus, even though the early arrivals at the port are beginning to leave by mid-afternoon, these spaces are almost immediately occupied by these visitors. In the evenings, the beach users and most tourists are gone, leaving ample parking for the dinner business at the local restaurants. This scenario is replayed on any given weekend from May through October, depending on the weather. During the winter months and on weekends with cold or foggy weather, parking provided at the port is more than adequate.

In addition to port visitors, parking is occupied by employees of tenant businesses. In the summer, when port visitorship is highest, the fish processing plant located on the pier is usually operating at full capacity with about 25 employees. Fish processing can occur around the clock and on weekends whenever a load of fish is delivered. In addition, the restaurants employ about 20 people during the day shift. Lastly, the three recreation fishing boats can hold as many as 180 fishermen, plus crew members. Together, the employees and boat fishing patrons can occupy as much as two-thirds of the available weekend parking spaces.

Based on the Parking Management Plan for the Port San Luis Harbor District (2013), there are 287 parking stalls located within the Port San Luis parking lot and 355 parking spaces located on Avila Beach Drive between the San Luis Creek Bridge and Port San Luis Harbor. Parking demand surveys were conducted on Saturday, September 1 (Labor Day weekend), Saturday October 13, 2012 (non-summer weekend), and Tuesday, October 16, 2012 (non-summer weekday). The Harbor and Pier sub-area represent a unique parking demand profile because of the extended hours of use (pre-dawn for the fishing industry and late night for patrons of the restaurants). Also, this area sees a unique mix of vehicles, cars, trucks, trailers and delivery vehicles. Based on the analysis, the parking demand exceeded the 85% utilization threshold

between the hours of 11:00 AM and 3:00 PM, and there was low turnover associated with visitors to the Pier and Harbor during the day.

The study showed that parking on Avila Beach Drive between the San Luis Creek Bridge and Port San Luis Harbor generally had available excess space during peak demand. Utilization rates for the 355 parking stalls along the road reached a high of 60%; 140 stalls, mostly in the western section of the roadway, were unused.

4.11.1.8 Unsafe Conditions

Currently, visitors to the beach area across from the project site can park within the Port San Luis parking lot or on either side of Avila Beach Drive. The road is also shared by bicyclists. There are not signals or stop controls on this section of Avila Beach Drive, and pedestrians are required to cross the road to access the beach, resulting in potentially unsafe conditions.

4.11.1.9 Air Traffic

The project site is not located within 2 miles of an airstrip or airport. The San Luis Obispo County Regional Airport is located approximately seven miles northeast of the project site, and the Oceano County Airport is located approximately nine miles to the southeast.

4.11.2 Regulatory Setting

Transportation system requirements for the unincorporated areas of the county are subject to the policies and plans of the County and Caltrans. The County outlines policies and standards regarding use of public roads in the San Luis Bay Coastal Area Plan and Avila Circulation Study (as updated). The County is responsible for the review and approval of proposed projects and traffic study reports. All new developments requiring ministerial and discretionary review are required to meet the parking space and access improvement standards specified by the County. Additional access requirements are required by CAL FIRE.

Caltrans has jurisdiction over all state-maintained facilities, including US 101. Caltrans strives to maintain operations at the LOS C/D threshold on all of its facilities but acknowledges that numerous roadway segments under its control in urban areas will operate at LOS D or worse. Any modifications to facilities within Caltrans right-of-way must be approved by the state.

The San Luis Bay Coastal Area Plan states the following regarding level of service on Avila Beach Drive and San Luis Bay Drive:

Reserve a portion of the Avila Beach Drive road capacity to serve coastal dependent uses and do not subject Avila Beach Drive to traffic levels exceeding Level of Service (LOS) "C" overall. The LOS for Avila Beach Drive and San Luis Bay Drive shall be based on the average hourly weekday two-way 3:00 p.m. to 6:00 p.m. traffic counts to be conducted during the second week in May of each year. Fire access lane requirements will comply with the adopted fire code for the County of San Luis Obispo. Further, significant disruptions to the environmentally-sensitive habitat of San Luis Obispo Creek and its associated riparian habitat areas shall be avoided. Unavoidable impacts shall provide equivalent offset mitigation and enhancement measures.

The 2010 Regional Transportation Plan/Sustainable Communities Strategy incorporates some of the requirements of the Sustainable Communities and Climate Protection Act (SB 375,

enacted in 2008), which requires each of the 18 Metropolitan Planning Organizations in California to develop a Sustainable Communities Strategy as a fourth element of the Regional Transportation Plan (to go along with the existing Policy, Action, and Financial elements). SLOCOG was not required to develop an SCS as part of the 2010 RTP update, and therefore did not include all the requirements of SB 375. As such, the planning document has been termed a Preliminary Sustainable Communities Strategy. The 2014 Regional Transportation Plan/Sustainable Communities Strategy is currently underway.

The RTP examines transportation issues, opportunities and needs of the San Luis Obispo region. It also identifies the goals, policies and objectives to guide planning and implementation of improvements for all transportation modes (public transit, highways, streets and roads, bikeways, rail, harbor, aviation and pedestrian). The primary purpose of this plan is to guide the development of a coordinated and balanced transportation system that meets the basic transportation needs of all social groups, businesses and industries in the region. A secondary purpose is to satisfy federal and state requirements for a regional transportation plan and an ongoing regional planning process.

County Bikeways Plan

The Bikeways Plan identifies bicycle circulation routes as well as bike path design and improvement standards.

San Luis Bay Coastal Area Plan

San Luis Bay Coastal Area Plan standards applicable to the project include:

5. ***Pedestrian Access.*** *New visitor serving developments on Harbor Terrace shall incorporate measures to provide safe pedestrian access onsite and coordinate access to the beach and other Port facilities.*

Port Master Plan and Port Master Plan Final Program EIR

The Port Master Plan Final Program EIR included the following assessment and measures related to transportation and traffic, which are applicable to the project:

The updated Avila Circulation Study suggests that build-out of the Port in accordance with the Final Master Plan and other reasonably foreseeable development will not result in an unacceptable level of service on area roadways and intersections. The study recommends a number of improvements over time to maintain this level of service and future development will be required to participate in the fair share funding of these improvements. A number of additional measures can be implemented to help reduce peak traffic and parking impacts experienced in the Avila/Port area, as described below.

Transportation System Management. Over the past 20 years, transportation systems management (TSM) programs have been established in many areas to help reduce traffic and parking congestion while avoiding the need for high capital cost improvements. Most TSM programs are oriented toward commute travel, with policies and promotional activities implemented at major employment sites, downtown areas, or on regional highways with large volumes of commute trips. TSM programs can involve a wide variety of policy actions, promotional activities, and physical improvements.

Transportation Systems Management options:

- Public transit service improvements
- Ride-sharing incentives
- Bicycle/transit facilities
- Parking management (as an alternative to constructing new parking facilities)
- Travel demand management (e.g., flexible work hours to reduce peak period travel)
- Spot roadway improvements to remove localized bottlenecks (e.g., channelization or signalization at intersections)

The Avila area, as primarily a recreational and relatively low-density residential area, is not well suited to many of the standard TSM activities implemented elsewhere. Its one major employer, the Diablo Canyon Nuclear Power Plant, is large enough to warrant an on-site TSM program. Its residential based commute travel is relatively low and directionally counter to the peak flow of traffic into or out of the area. The focus of TSM strategies would therefore need to address recreational travel to and from the beach. Since this is of limited duration during summer weekends and holidays, TSM measures should be considered to reduce auto trips into the town and associated parking congestion. The following strategies have been evaluated:

- Public transit service improvements
- Intercept parking with shuttle transit service
- Bicycle facilities
- Public Transit Improvements

Because the study area is a relatively isolated location and has a limited resident population base, it is not likely that public transit could play a major role in reducing traffic levels during typical weekdays. However, during summer weekends or holidays improving transit service will in the future play a key role in reducing peak traffic to and from the beach areas in Avila. It is recommended that, as parking becomes more difficult in the town area a regional transit strategy be implemented. Operation of a direct route on weekends during the summer season, with service from the Five Cities area directly into Avila Beach and then on to downtown San Luis Obispo will be warranted.

This service should be operated between 10:00 a.m. and 6:00 p.m. for approximately 32 weekend days per summer. In addition to the summer schedule, this service should be considered for any special event where the demand for parking is projected to exceed the supply of stalls in town.

Intercept Parking and Shuttle Service. Long range, the concept of providing intercept parking facilities near State Route 101 with a shuttle bus into the beach areas is warranted for several reasons. As noted previously, the growth in demand for use of beach facilities is projected to be greater than the anticipated parking supply.

Parking in Avila Beach is already at or near capacity during summer weekends and holidays. Once the available parking is taken, any excess demand can only be served by off-site parking. Avila Beach has only two entry points along US 101 and all visitors must use these for access. This makes it relatively easy to sign and route drivers to intercept parking facilities. This is especially true for out-of-town visitors. Remote parking would be substantially easier and less costly to develop than parking in the town of Avila and the Harbor areas.

In the long term, there is an opportunity to also establish these intercept parking facilities as park and-ride lots for weekday commuters into San Luis Obispo. Generally, they are most likely to attract riders when parking and traffic congestion is severe, and the shuttle service itself is convenient and low in cost. As noted above, some of the necessary conditions will exist in the future in the Avila area. Assuming the shuttle only operates on summer weekends and that existing SLORTA, SLO Transit or other available buses are used for the service, costs of the shuttle operation would be relatively small.

It is estimated that with development of the planned land uses in the town of Avila Beach, parking demand will exceed the supply by about 200 stalls. Two locations are suggested for development of the needed parking stalls. Use of the existing parking area at the PG&E visitor center on Ontario Road would greatly minimize the capital cost associated with parking lot development. This 75 stall lot could be used to provide an intercept facility for traffic arriving from the north. A lease agreement for use of the lot during the summer and holidays would have to be completed between the County and P. G. & E. The second location is near the Avila Beach Drive interchange. A 100-125 stall lot would need to be constructed at this location to intercept traffic from the south.

A shuttle bus would be used to transport riders from the intercept lots to the town, beaches and Harbor. The shuttle bus would also operate from 10:00 a.m. and 6:00 p.m. Changeable message signs would be constructed at each of the interchanges to inform travelers of alternative parking options whenever the parking lots in town were nearing capacity. This shuttle system should also be used for any special event where the demand for parking is projected to exceed the supply of stalls in town. As part of the development of the park-and-ride lots message signs would be installed at the freeway off ramps to inform motorists that the parking in town was full and that the travelers should use the intercept lots. These message signs could also be used during special events at the Harbor or in Town to inform visitors of parking availability.

The Port Master Plan and Port Master Plan Final Program EIR also identify alternative parking options for consideration, including augmentation of parking within the core of the town.

The goal of these options was to add the 200 stalls necessary to eliminate the shortfall as close to town as possible. The difficulty with this strategy is that the traffic accessing the community would continue to use the critical segment of Avila Beach Drive between San Luis Bay Drive and San Luis Street. The option to expand the Harbor lot would also use very valuable land and could be quite expensive. The Chevron lot option would necessitate additional road improvements and operation of a shuttle bus.

Bicycle Provisions. Bicycling should be encouraged as an alternative means of access. The provision of bike lanes on Avila Beach Drive and San Luis Bay Drive should be included as an element of any roadway widening. The completion of the bicycle path from San Luis Bay Drive to San Miguel Street along San Luis Creek will greatly enhance bicycling as an alternative mode of travel within the study area.

While it is not anticipated that a significant shift in traffic demand will be shifted to bicycles, this alternative mode can play a role in increasing the accessibility to and from the study area. Furthermore, the completion of the bike path will encourage the relocation of bicyclists from the congested segment of Avila Beach Drive between San Luis Bay Drive and San Luis Street. One option would be to have visitors travel to the area via automobile and park in one of the intercept

parking lots. Then using bicycles and the bike trail travel into the beach area. This would also assist in relieving some traffic demand on Avila Beach Drive and San Luis Bay Drive.

Parking Management Plan for the Port San Luis Harbor District

The Parking Management Plan for the Port San Luis Harbor District (C2 Consult 2013) includes short and long-term strategy recommendations to manage typical peak season parking demands. One of these suggestions includes the development of a parking structure within Avila Beach; preparation of a feasibility study is recommended prior to further consideration of this option. Additional long-term options identified in the Parking Management Plan, which are incorporated into the proposed project, include provision of development and boat trailer parking on the project site (Harbor Terrace). In addition, the proposed project would re-locate existing RV camping spaces on Avila Beach Drive onto the project site, which would ~~free-up~~ provide public access opportunities including visitor parking along the roadway.

Alternative parking options also exist for consideration. These include augmentation of parking within the core of the town, purchase of property for additional parking, the creation of satellite parking lots, installation of parking meters, use of the Towne Trolley, improved enforcement of parking, and use of private parking areas for overflow parking during the peak season and special events.

4.11.3 Thresholds of Significance

The significance of potential transportation and circulation impacts are based on thresholds identified by the County, in accordance with Appendix G of the CEQA Guidelines. Transportation impacts are considered significant if the proposed project would:

- a. Increase vehicle trips to local or areawide circulation system;
- b. Reduce existing “Levels of Service” on public roadways (refer to LOS standards below);
- c. Create unsafe conditions on public roadways (e.g., limited access, design features, sight distance, slow vehicles);
- d. Fail to provide for adequate emergency access;
- e. Conflict with an established measure of effectiveness for the performance of the circulation system considering all modes of transportation (e.g., LOS, mass transit, etc.);
- f. Conflict with an applicable congestion management program;
- g. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities;
or,
- h. Result in a change in air traffic patterns that may result in substantial safety risks.

4.11.3.1 “Level of Service” Thresholds

The County has established the LOS C threshold for acceptable operations on rural facilities maintained by the County. Caltrans strives to maintain a target level of service at the transition between LOS C/D on state-operated facilities.

Transportation impacts at signalized intersections are considered significant when:

- The addition of project traffic causes the intersection’s level of service to degrade from LOS C or better to LOS D, E, or F.
- Project traffic is added to an intersection currently operating at LOS D, E, or F.

Transportation impacts at unsignalized intersections are considered significant when:

- The addition of project traffic to an unsignalized intersection degrades the level of service to an unacceptable level and satisfies the peak-hour signal warrant from the California Manual on Uniform Traffic Control Devices.
- The project’s access to a major street causes a potentially unsafe situation or requires a new traffic signal.

Evaluation of arterial roadway segments reflects planning-level conditions along a street, whereas analysis of the intersections reflects detailed conditions of the arterial. Typically, poor operating conditions on an arterial are due to constraints at the intersections, and can be mitigated at the intersection. Therefore, if an arterial roadway segment analysis shows poor operating conditions, but individual intersections operate within acceptable standards, the mitigation measures defer to the intersection.

For US 101 ramps, US 101 mainline segments, or any County roadway segment already operating at LOS D, E, or F without the project, the addition of any project traffic to that location is considered a significant impact.

Roadway segment thresholds are summarized in Table 4.11-4. The study roadway segment on Avila Beach Drive was evaluated using generalized daily volume thresholds based on the LCP, and the mainline segments of Highway 101 were evaluated using a vehicle density calculation consistent with the 2010 Highway Capacity Manual (HCM) (CCTC 2014, incorporated by reference).

Table 4.11-4. Segment Level of Service Thresholds

Freeway Segments ¹		Avila Beach Drive (Two Lane Undivided Arterial) ²	
Density (pc/mi/ln)	Level of Service	Peak Hour Two-Way Volume	Level of Service
≤ 11	A	≤ 1,180	A
> 11 – 18	B	> 1,180 – 1,380	B
> 18 – 26	C	> 1,380 – 1,580	C
> 26 – 35	D	> 1,580 – 1,780	D
> 35 – 45	E	> 1,780 – 2,000	E
> 45 (demand exceeds capacity)	F	> 2,000	F

¹ Source: Exhibit 11-5 of the 2010 HCM

² Source: Avila Valley Circulation Study, which derived capacities by blending 1992 and 1997 HCM approaches

4.11.3.2 Alternative Transportation

An impact to pedestrians and bicyclists would be considered significant if implementation of the proposed project would conflict with existing or planned bicycle facilities or would generate pedestrian and bicycle demand without providing adequate and appropriate facilities for safe non-motorized mobility. Impacts to transit would be considered significant if the proposed project would conflict with existing or planned transit facilities or will generate potential transit trips and would not provide adequate facilities for pedestrians and bicyclists to access transit routes and stops.

4.11.4 Impact Assessment and Methodology

Impacts were assessed by comparing roadway operations with the addition of project-generated traffic to those under existing conditions and applying the appropriate criteria from thresholds of significance described above. Potential impacts to bicycle, pedestrian, and transit facilities and services were also identified by comparing project conditions to existing conditions.

The analysis approach was developed based on the County of San Luis Obispo and Caltrans standards. In addition, the analysis approach was reviewed by the County Public Works Department prior to initiation of the study, including review and approval of proposed study intersections, roadway segments, required analysis time period, and cumulative forecasting approach (Lisa Wise Consulting 2014). In addition, the project study was coordinated with the County's Avila Circulation Study Update and May 2014 traffic counts.

Seasonal traffic and short-term increases in traffic during special events would continue to contribute to congestion in the area. Both the Avila Valley Circulation Study and the Port San Luis Master Plan and Final Program EIR recognize these existing conditions. The traffic analysis conducted for the proposed project, which is incorporated by reference, was prepared based on confirmation of the appropriate methodology for traffic analysis within the Avila area, and was prepared consistent with the San Luis Bay Area Plan and Avila Valley Circulation Study.

The County's Traffic Impact Study policies provide guidelines for identifying transportation impacts. The study intersections are located within the Avila Beach Urban Reserve Line, where LOS D is acceptable but LOS E is not. The San Luis Bay Coastal Area Plan (LCP Section B2) provides further guidance that Avila Beach Drive shall not be subject to traffic levels exceeding LOS C during the PM peak hour based on counts conducted on a weekday in May.

Caltrans controls US 101 and relies on LOS to identify impacts. Caltrans strives to maintain operations at the LOS C/D threshold on state-operated facilities, where LOS C is acceptable but LOS D is not. If an existing State Highway facility is operating at LOS D, E, or F the existing service level should be maintained.

The level of service thresholds for intersections based on the 2010 HCM are presented in Table 4.11-1 (presented earlier in the section). The study intersections were analyzed with the Synchro 8 software package applying the 2010 HCM methods. Roadway segment thresholds are summarized in Table 4.11-2 (presented earlier in this section). The study roadway segment on Avila Beach Drive was evaluated using generalized daily volume thresholds based on the LCP, and the mainline segments of US 101 were evaluated using a vehicle density calculation consistent with the 2010 HCM.

4.11.5 Project Specific Impacts and Mitigation Measures

Increase Vehicle Trips to Local or Areawide Circulation System

Existing Plus Project conditions reflect existing traffic levels plus the estimated traffic generated by the proposed project. The amount of project traffic affecting the study intersections is estimated in three steps: trip generation, trip distribution, and trip assignment. Trip generation refers to the total number of new trips generated by the site. Trip distribution identifies the general origins and destination of these trips, and trip assignment specifies the routes taken to reach these origins and destinations. The project's trip generation estimates, summarized in Table 4.11-5, were developed using rates in the Institute of Transportation Engineers' Trip Generation Manual.

Table 4.11-5. Project Trip Generation

Use	Size/Unit	Daily	PM Peak Hour		
			In	Out	Total
Meeting/Conference/Office/Reception	15,800 sf	174	4	20	24
Restaurant	3,000 sf	381	18	12	30
	<i>Pass-by trips</i>	<i>-164</i>	<i>-8</i>	<i>-5</i>	<i>-13</i>
Market	2,000 sf	690	34	35	69
	<i>Pass-by trips</i>	<i>-421</i>	<i>-21</i>	<i>-21</i>	<i>-42</i>
Park/Open Space	1 acre	2	1	1	2
RV Sites (95), Tent Sites (56) ¹	96 units	260	17	9	26
Cabins	31 units	253	10	9	19
Harbor Expansion Area	10,000 sf	30	1	9	10
Campground Manager's Residence	1 unit	10	1	0	1
Total Driveway Trips		1,800	86	95	181
<i>Pass-by Trips</i>		<i>-585</i>	<i>-29</i>	<i>-26</i>	<i>-55</i>
Net New Trips		1,215	57	69	126

¹Net new RV sites reflects removal of 55 RV spaces from Avila Beach Drive and existing on Harbor Terrace as part of the project

²Pass-by trip reductions based on average of surveyed data in ITE Manual (43% for restaurant, 61% for market)

Note: Campground and market daily trips estimated at 10 times PM peak hour

Source: ITE Trip Generation Manual, 9th Edition 2012; CCTC 2014 (incorporated by reference)

The project trips are categorized as new trips and pass-by trips. Pass-by trips are made by drivers already passing by the site who stop at the project before continuing to their original destination. Pass-by trips increase the number of trips at the project driveways, but do not change the volume approaching and departing the project on Avila Beach Drive. New trips are from drivers whose primary destination is located on the project site. These new trips increase traffic along Avila Beach Drive and the project driveways. Pass-by trip reductions were applied to the restaurant and convenience market components of the project, since typically a large portion of traffic from these uses are trips already on the adjacent roadway network.

This is a conservative estimate of the project's most intense traffic generating uses, and typical operations are expected to generate fewer trips. The Campground/Recreational Vehicle Park (ITE Land Use #416) survey data includes trips generated by a variety of on-site facilities, including recreational facilities such as swimming pools, convenience stores, and laundry facilities. The estimate in Table 4.11-5 adds trips for the convenience market to the campground sites, potentially overstating the number of trips generated. Furthermore, the trip generation assumes 100% occupancy of the campground sites and cabins. Typical weekday occupancy would be lower. Finally, project trips were assigned exclusively to the Babe Lane entry to show a worst case operational scenario. The second access driveway would serve a portion of the project traffic, spreading the traffic flow.

The project trip generation estimate shows 1,215 new daily trips and 126 new PM peak hour trips. The directions of approach and departure for project trips were estimated based on existing trip patterns and the locations of complementary land uses. Project trips were assigned to individual intersections based on the trip distribution percentages, and were then added to the existing traffic volumes for Existing Plus Project Conditions. The proposed project would add trips to the existing road network; however, the additional trips would not result in a reduced level of service below identified thresholds, as discussed below. Therefore, potential impacts would be less than significant.

Construction of the proposed project would result in the use of local roadways for the transport of equipment and materials to the project site. Due to the short-term nature of the construction period, the effects would be less than significant (Class III), and would therefore not require off-site road improvements. Prior to issuance of grading and construction permits, a Construction Traffic Mitigation Plan would be prepared, and would be implemented during the grading and construction phases. The following measure would be incorporated into the project:

TR/mm-1 Prior to construction, the Harbor District or their designee shall prepare a Construction Traffic Mitigation Plan for review and approval by County Public Works. The Plan shall be implemented during construction, and shall include, but not be limited to, the following elements:

- a. Description of construction activities, including equipment lists and project schedule, including estimated start and end dates and working hours;
- b. Name of on-site construction manager;
- c. Identification of the work area, truck route(s), and staging areas in relation to cross streets, including all distances and dimensions;
- d. Traffic control plan, including: all temporary traffic control devices including signs and delineators; use of construction staff to manage or direct traffic; measures to reduce truck and equipment queuing on County streets; and safety measures for vehicles, pedestrians, bicyclists, and construction workers;
- e. Avoidance of peak traffic hours based on consultation with the County Public Works Department.

Reduce Existing “Levels of Service” on Public Roadways

Table 4.11-6 summarizes the automobile operating conditions under Existing and Existing Plus Project conditions.

Table 4.11-6. Existing and Existing Plus Project Peak Hour Level of Service

Intersection	Existing PM		Existing Plus Project PM	
	Delay (sec/veh) ¹	LOS	Delay (sec/veh) ¹	LOS
Avila Beach Drive/Babe Lane	0.4 (12.3)	A (B)	2.4 (17.3)	A (C)
Avila Beach Drive/First Street	6.7	A	7.6	A

Segment	Existing PM		Existing Plus Project PM	
	Two-way Volume	LOS	Two-way Volume	LOS
Avila Beach Drive w/o San Luis Bay Drive	1,326 ²	B	1,429	C

Segment	Existing PM		Existing Plus Project PM	
	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
US 101 n/o San Luis Bay Drive Northbound	13.6	B	13.8	B
US 101 n/o San Luis Bay Drive Southbound	37.5	E	37.7	E
US 101 s/o San Luis Bay Drive Northbound	15.3	B	15.5	B
US 101 s/o San Luis Bay Drive Southbound	41.8	E	42.1	E

¹ HCM average control delay in seconds per vehicle. Delay for side street stop controlled intersection reported as average delay followed by worst approach delay in parenthesis.

² Based on traffic counts taken in May 2014, as required by the San Luis Bay Area Plan and Avila Valley Circulation Study, and confirmation from the County Public Works Department

Note: Unacceptable operations shown in **bold**

All of the study locations within Avila Beach operate acceptably at LOS C or better with the addition of project traffic. Vehicle queues at all study locations were acceptable. The southbound segments of US 101 would continue to operate unacceptably, but the service level would not change and the project would increase the vehicle density on the highway by less than 1%. Therefore, potential impacts would be less than significant.

Create Unsafe Conditions

Pedestrian deficiencies would occur if the project fails to provide safe and accessible pedestrian connections between the project and nearby destinations. The project proposes two pedestrian crosswalks across Avila Beach Drive, one adjacent to each project entrance. These crosswalks would also serve visitors parking on the project site, and would connect the project site to the multi-use path planned along the ocean side of Avila Beach Drive as well as the nearby beaches. Pedestrian volumes crossing Avila Beach Drive should be monitored to determine the need, if any, of enhanced crossing treatments such as in-pavement flashers. Detailed site designs should be reviewed once they are available to ensure that pedestrian facilities are continuous and connect to likely destinations to the maximum extent possible.

On-site circulation deficiencies would occur if project designs fail to meet appropriate standards, fail to provide adequate truck access, or would result in hazardous or unsafe conditions. Primary project access will be provided via Babe Lane, where there would be a short term parking facility and payment kiosks. Secondary project access will be provided via a second entry located approximately 150 feet east of Diablo Canyon Road. Both project access points currently exist. While additional spacing would be desirable between the second entry and Diablo Canyon Road, site topography and the need for secondary emergency access preclude other alternatives.

No turn lanes are provided on Avila Beach Drive at the project access points. The need for left turn lanes was evaluated based on the approach recommended in National Cooperative Highway Research Program (NCHRP) Report 745, Left-Turn Accommodations at Unsignalized Intersections (CCTC 2014, incorporated by reference). This document provides recommended thresholds for determining if a left turn lane is warranted. The warrants are an important element of the decision making process, but must be considered with other factors such as design consistency within a corridor.

The project would generate relatively few left turns into the project site, since most campground users would come from the east. However, some traffic would arrive from the Harford Landing area to the west. The project trip estimates show 13 inbound left turns during the peak hour, which would be split between the two driveways. The existing volume on Avila Beach Drive is 365 vehicles per hour per lane. Based on NCHRP Report 745, a left-turn lane would be warranted with a minimum volume of roughly eight left turns. Monitoring of traffic levels at the project driveways during operation of the project, and further consultation with the County Department of Public Works would be implemented to make a determination of the need for left turn lanes based on field observed conditions after project occupancy. For the purposes of this analysis, secondary impacts associated with construction of a left-turn lane would include short-term disruption of traffic flow necessitating traffic control measures, additional ground disturbance, and potential impacts to water quality and sensitive habitats including sediment and pollutant discharge during construction. Mitigation measures identified in this EIR regarding these potential impacts would apply.

Two types of sight distance are relevant for the project entries and crosswalks: intersection sight distance and stopping sight distance. Intersection sight distance allows a driver on a minor road to depart from the intersection and enter or cross the main road without causing undue delay to the major road traffic. Intersection sight distance requires a clear sight triangle free of visual obstructions. The intent of the intersection sight distance criteria is to allow the intersection to operate smoothly, with minimal effect on major street traffic flow. Values below the recommended minimum would require major street traffic to slow or stop as minor street

vehicles enter the traffic stream. The values for intersection sight distance are longer than the stopping sight distance, discussed below.

Stopping sight distance is the sum of two values: 1) the distance traveled by the vehicle from the instant the driver sees an object until the brakes are applied plus 2) the distance needed to stop the vehicle. This is the minimum length of clear roadway that must be visible for a motorist to stop for a pedestrian, vehicle, or object in the road. The Highway Design Manual (HDM) (CCTC 2014, incorporated by reference) allows for the use of stopping sight distance in lieu of intersection sight distance at locations where restrictive conditions (such as excessive costs or immitigable environmental impacts) exist. The minimum stopping sight distance for a 40 mph design speed is 300 feet per the HDM.

At a minimum, the project should maintain a clear sight triangle providing at least 300 feet of stopping sight distance for the project driveways and crosswalks. This will require parking restrictions along portions of both sides of Avila Beach Drive near the project entrances and may require vegetation removal/maintenance. The provision of 440 feet of intersection sight distance is desirable, and would minimize the disruption of flow on Avila Beach Drive caused by vehicles exiting the project.

TR Impact 1	
Additional trips resulting from the proposed project may result in the need for a left-turn lane at either Babe Lane or the secondary access road. Secondary impacts may include additional ground disturbance, and potential impacts to air quality, water quality, and sensitive habitats including emission generation and sediment and pollutant discharge during construction. Mitigation measures identified in this EIR regarding these potential impacts would apply.	
Mitigation Measures	
<i>TR/mm-24</i>	<i>Prior to operation of the proposed project, the Harbor District or their designee shall prepare a Traffic Monitoring Plan for the review and approval of the County Public Works Department. The Monitoring Plan shall identify appropriate methodologies and timeframes for conducting onsite turning movement counts, determination of capacity and trip generation resulting from the proposed project, and identification of a threshold for implementation of a left turn lane if feasible.</i>
<i>TR/mm-32</i>	<i>In the event a left-turn lane is required to be constructed, the Harbor District or their designee shall submit grading and construction plans for review and approval by County Public Works. The plan shall include the following measures and elements:</i> <ul style="list-style-type: none"> <i>a. A Transportation Management Plan including measures to divert vehicle, bicyclist, and pedestrian traffic safely around the project area;</i> <i>b. Biological Resources Monitoring Plan including the presence of a qualified biological monitor during grading and construction activities and worker training;</i> <i>c. Cultural Resources Monitoring Plan including the presence of an archaeological monitor during initial ground disturbance and worker training;</i> <i>d. Erosion and Sedimentation Control Plan and SWPPP consistent with County Coastal Zone Land Use Ordinance and RWQCB standards and regulations.</i>
Residual Impacts	
At this time, the construction of a left-turn lane has not been identified as a requirement of the project due to projected low number of left-turn movements. In the event a turn-lane is warranted based on monitoring, and as determined based on coordination between the County Public Works Department and the Harbor District during operation of the project, mitigation shall be implemented as described above to address potential secondary impacts. Noted mitigation is identified in addition to construction-related mitigation identified in this EIR. Based on compliance with mitigation measures identified above and contained within this EIR, and associated with resources potentially affected by construction of the turn-lane, potential impacts would be less than significant.	

TR Impact 2	
Existing vegetation near proposed primary and secondary access approaches may hinder safe viewing distances on Avila Beach Drive, resulting in a potentially significant impact.	
Mitigation Measures	
<i>TR/mm-43</i>	<i>For the life of the project, a clear sight triangle of at least 300 feet of stopping sight distance, and 440 feet of intersection sight distance shall be maintained at each access approach to Avila Beach Drive. This shall be achieved through long-term management of vegetation and limitations on parking on Avila Beach Drive.</i>
Residual Impacts	
Vegetation removal associated with the proposed access roads would be limited to ruderal/disturbed areas and coastal scrub within the road right-of-way. The additional vegetative impacts would not be significant, and would be incorporated into proposed landscaping and site restoration plans associated with the overall project. The reduction of parking on Avila Beach Drive would not be significant based on overall available parking on Avila Beach Drive, and proposed project's removal of RV camping on Avila Beach Drive, which would free up roadside parking for non-RV vehicles.	

Emergency Access

The proposed project includes primary and secondary access routes, which have been reviewed and approved by CAL FIRE (Port San Luis Harbor District 2014). Regional access to the Port is currently limited to Avila Beach Drive. As noted in EIR Section 4.7 (Hazards and Hazardous Materials), CAL FIRE has identified concerns related to seasonal congestion, and delayed response times and emergency egress. Emergency evacuation via Diablo Canyon Road is recognized by the Harbor District, PG&E, the County of San Luis Obispo, and CAL FIRE. The proposed project would add to visitor traffic in the area, but would not result in a project-specific adverse impact related to emergency access.

Conflict with Performance of Circulation System

Analysis of the project's effect on LOS is presented above, and potential impacts were identified as less than significant.

In addition to impacts to LOS, the project would result in the need for additional parking to serve the project. Consistent with the Port San Luis Master Plan (CMCA 2004), the project includes approximately 48,000 square feet of paved (asphalt), delineated, parking ~~stalls~~ and associated circulation onsite. In addition, the project would relocate existing RV campsites from Avila Beach Drive onto the project site, which would free-up parking along the roadway.

Conflict with Applicable Congestion Management Program

Analysis of the project's effect on LOS is presented above, and potential impacts were identified as less than significant.

Conflict with Adopted Alternative Transportation Policies, Plans, or Programs

Bicycle deficiencies would occur if the project disrupts existing or planned bicycle facilities or is otherwise incongruent with the County's Bikeways Plan. An extension of the Bob Jones Trail is currently under consideration by the County General Services Agency (County Parks). This plan would provide a mixed-use path extending from the current trailhead near the Avila Beach Golf

Resort to Harford Pier, and would include: a Class I bikepath with a mix of pedestrians, possible Class II bike lanes, on-street parking, and travel lanes in each direction. Funding has been provided by Pacific Gas and Electric for preliminary engineering, environmental review, and permitting phases, and additional funds have been allocated from the Unocal (Chevron) mitigation program for construction. Additional funding would be necessary to complete the project. The project would not conflict with this or any other planned bicycle facility.

Transit deficiencies would occur if the project disrupts existing or planned transit facilities or services or conflicts with County plans, guidelines, policies, or standards. The nearest transit stop to the project is served the seasonal Avila Trolley, which stops in front of Fat Cats restaurant approximately 0.25 mile southwest of the project. The Port Master Plan calls for a new trolley stop at one of the proposed project crosswalks. The project would not result in any transit deficiencies.

Change in Air Traffic Patterns

The project site is separated from the nearest airport by approximately 7 miles (San Luis Obispo Regional Airport) and is, therefore, not expected to affect air traffic patterns or result in air traffic-related safety risks. The project does not include any features that would interfere with recreational air traffic along the coastline. Therefore, potential impacts would be less than significant.

4.11.6 Cumulative Impacts

Cumulative conditions represent build-out of the Avila Beach area. While several capacity expansions are planned in the area, particularly in the vicinity of the US 101 interchanges, no changes are planned to the study locations. Therefore the roadway geometrics have not been changed from existing conditions. The project would be required to contribute traffic impact fees which would apply towards future improvements in the area.

The Avila Traffic Model was developed to forecast future travel patterns in the Avila Beach area. The model incorporates future land uses to produce future year traffic forecasts. The most recent version of the model was calibrated and validated to year 2006 data, and the future year scenario was developed to represent build-out conditions in the area, nominally year 2020.

The model was applied to develop Cumulative forecasts using the difference method, where the model's projected growth of future year volumes over base year volumes was added to the recently collected traffic counts. Project traffic was added to Cumulative conditions volumes to yield Cumulative Plus Project conditions, and Table 4.11-7 summarizes Cumulative traffic conditions with and without the project.

Table 4.11-7. Cumulative and Cumulative Plus Project Peak Hour LOS

Intersection	Cumulative PM		Cumulative Plus Project PM	
	Delay (sec/veh) ¹	LOS	Delay (sec/veh) ¹	LOS
Avila Beach Drive/Babe Lane	0.4 (13.1)	A (B)	2.4 (19.2)	A (C)
Avila Beach Drive/First Street	7.9	A	7.9	A

Segment	Cumulative PM		Cumulative Plus Project PM	
	Two-way Volume	LOS	Two-way Volume	LOS
Avila Beach Drive w/o San Luis Bay Drive	1,425	C	1,526	C

Segment	Cumulative PM		Cumulative Plus Project PM	
	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
US 101 n/o San Luis Bay Drive Northbound	16.5	B	16.7	B
US 101 n/o San Luis Bay Drive Southbound	40.8	E	41.1	E
US 101 s/o San Luis Bay Drive Northbound	18.1	C	18.3	C
US 101 s/o San Luis Bay Drive Southbound	45.1	F	45.4	F

¹ HCM average control delay in seconds per vehicle. Delay for side street stop controlled intersection reported as average delay followed by worst approach delay in parenthesis.

Note: Unacceptable operations shown in **bold**

The study locations within Avila Beach would operate acceptably at LOS C or better. No queuing issues are expected. The southbound segments of US 101 would operate at LOS E and F both with and without the project. The addition of project traffic would not change the service level on US 101, and would increase the density of mainline flow by less than 1%. Therefore, potential impacts would be less than significant.

The Port Master Plan Final Program EIR (2004) identified a significant cumulative impact to Highway 101 both north and south of the interchange with Avila Beach Drive. The Harbor District adopted overriding considerations for this cumulative impact at the time the Final Program EIR was certified, which applied to cumulative development associated with buildout of the Master Plan.