4.13 TRANSPORTATION/CIRCULATION

This section analyzes impacts to the local transportation and circulation system, including along-term impacts associated with operation of the proposed project. The analysis is based primarily on a traffic study for the project prepared by Associated Traffic Engineers (ATE) (included in its entirety in Appendix I), dated November 15, 2012, a peer review of the traffic study by Penfield and Smith, dated May 20, 2013, and a supplemental traffic analysis prepared by ATE and dated April 16, 2014. A memorandum summarizing the peer review findings and the supplemental traffic analysis are included in their entirety in Appendix I.

4.13.1 Setting

The project site is located north of Cortona Drive, east of Storke Road, and south of U.S. Highway 101 in the City of Goleta. The 8.8-gross acre site is currently vacant and undeveloped. The proposed project would involve construction of a new driveway connection to Cortona Drive and a total of 330 on-site parking spaces for residents and guests.

a. Existing Street System. Primary regional access to the study area is provided by U.S. 101 via Glen Annie/Storke Road. U.S. 101 generally runs in a north-south direction throughout California; however, in the Santa Barbara County area, it runs in an east-west direction. The circulation system in the study area is comprised of regional highways, arterial roadways and residential streets. The principal components of this street network are discussed in the following text and shown in relation to the project site in Figure 4.13-1.

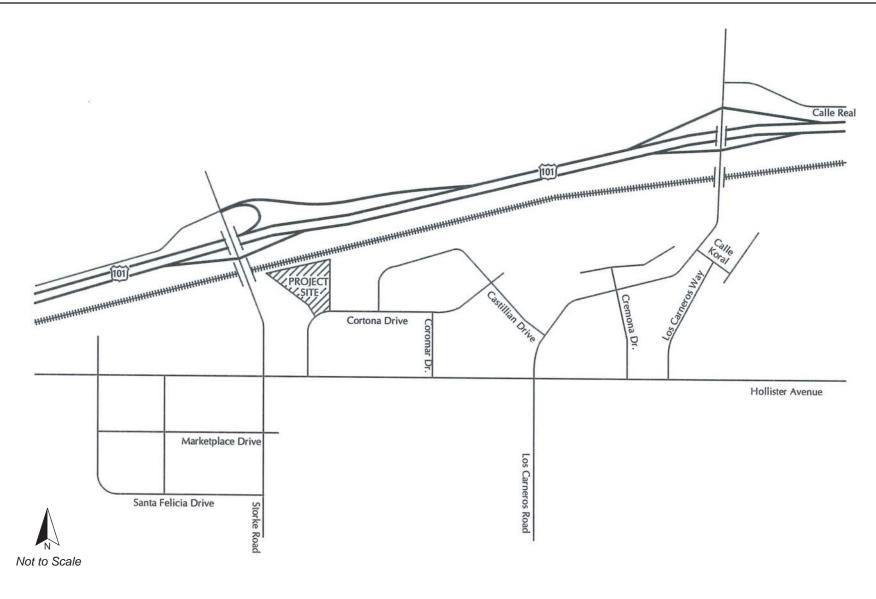
<u>U.S. Highway 101 (U.S. 101)</u>, located north of the project site, is a multi-lane interstate freeway serving the Pacific Coast between Los Angeles and the state of Washington. This freeway is the principal route between the City of Goleta and the adjacent cities of Santa Barbara, Carpinteria, and Ventura to the south; and the cities of Buellton and Santa Maria to the north. Access to U.S. 101 would be provided via the Storke Road and Los Carneros Road interchanges.

<u>Hollister Avenue</u>, located south of the project site, is an arterial roadway that serves as the primary east-west surface street through the community of Goleta. Hollister Avenue is a 4-lane divided arterial with on-street bike lanes.

Storke Road-Glen Annie Road, located east of the project site, is a 2-4 lane north-south arterial roadway that extends between Cathedral Oaks Road on the north and El Colegio Road on the south. Storke Road provides freeway access to the western portion of the Goleta Valley area via an interchange at U.S. 101. North of the interchange, Storke Road becomes Glen Annie Road and extends as a 2-lane road to Cathedral Oaks Road.

<u>Los Carneros Road</u>, located west of the project site, is a north-south arterial street. North of Hollister Avenue, Los Carneros Road extends as 4-lane roadway connecting with the U.S. 101 interchange and continues north to its terminus at Cathedral Oak Road. Los Carneros Road extends as a 2-lane road south of Hollister Avenue to El Colegio, providing access to the Isla Vista-UCSB area.

<u>Cortona Drive</u>, located along the project's frontage, is two-lane road that extends northerly from Hollister Avenue to its terminus at Castillian Drive. A new driveway connection to Cortona Drive would provide access to the project site.



b. Existing Traffic Volumes and Levels of Service. The following sections present the existing peak hour traffic volumes at intersections in the study area, the existing average daily traffic (ADT) volumes for the street segments, a description of the methodology used to analyze the intersection and roadway segment traffic conditions, and the resulting level of service at each location under existing conditions.

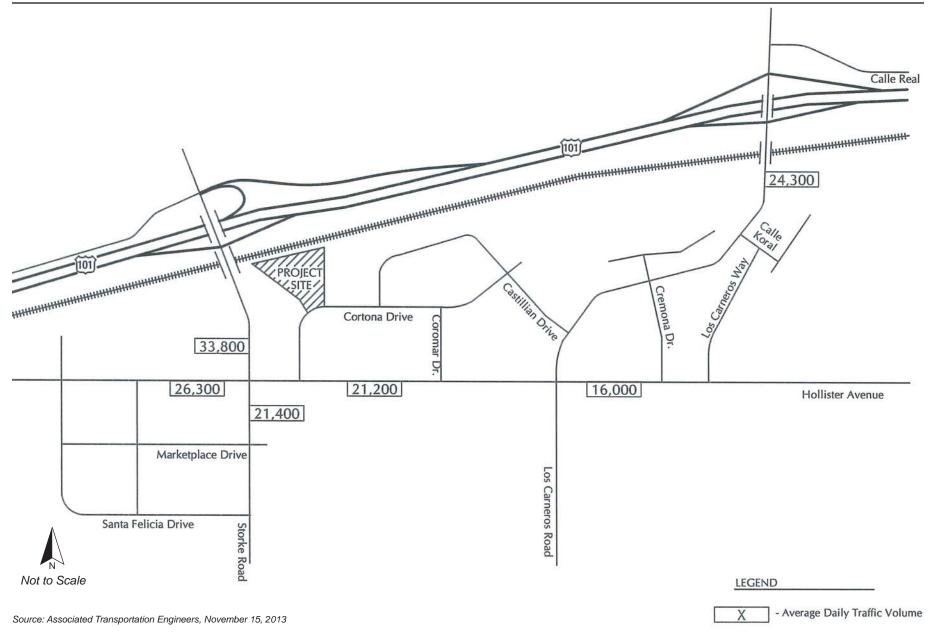
Existing Roadway Segment Volumes. Existing ADT volumes were obtained through data contained in traffic studies that were recently completed within the project study area (Goleta Mixed-Use Village and Village at Los Carneros). Traffic counts for several roadway segments were collected in 2009, which is more than the typical two-years period in which counts are considered recent; however, comparison with most recent (2012) counts indicate that the 2009 volumes are similar to the more recent counts and may be considered representative of current conditions. The operational characteristics of the study area roadways were analyzed based on the City of Goleta engineering roadway design capacities. Figure 4.13-2 shows existing ADT volumes in the project vicinity.

<u>Existing Intersection Volumes</u>. Turning volume counts at intersections in the study area were obtained from traffic counts conducted in November of 2009 and February of 2010 for the AM and PM peak periods (7 AM to 9 AM and 4 PM to 6 PM on weekdays). Because traffic flow on urban arterials is most constrained at intersections, detailed traffic flow analyses focus on the operating conditions of critical intersections during peak travel periods. Figures 4.13-3 and 4.13-4, respectively, present the existing A.M. and P.M. peak hour traffic volumes.

Level of Service Methodology. Level of service is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. The City of Goleta and County of Santa Barbara have established LOS C as the minimum acceptable level of service for intersection operations. Levels of service were calculated for signalized intersections in the study area using the "Intersection Capacity Utilization" (ICU) methodology, with the results shown as a volume-to-capacity ratio. Levels of service for the unsignalized intersections were calculated using the methodology outlined in the Highway Capacity Manual (HCM), and the results are presented as seconds of delay. The level of service criteria for intersections are summarized in Table 4.13-1.

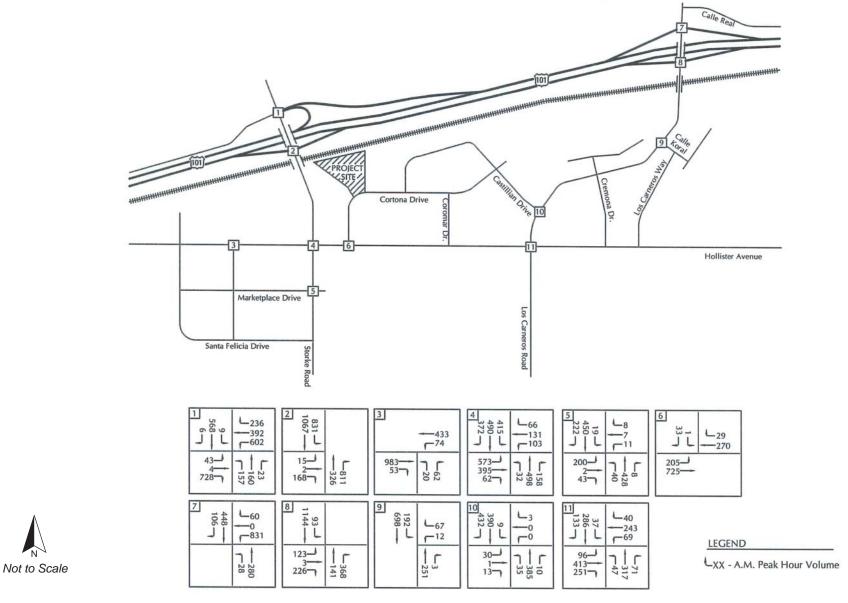
Table 4.13-2 indicates that all of the intersections included in the traffic study operate at LOS C or better under existing conditions, which is considered acceptable based on the City's level of service standards.

c. Existing Transit System. The study area is served by the Metropolitan Transit District (MTD) Line 6, a bus route which provides a connection between Camino Real Marketplace, UCSB, and the Santa Barbara Transit Center via Hollister Avenue (MTD, 2012). An express MTD route, Line 12x, runs along Hollister Avenue near the project site, connecting Camino Real Marketplace with the Transit Center. In addition, MTD Line 25 provides a connection between the intersection of Storke Road and Hollister Avenue to Ellwood to the west. Class II bike lanes are present along Hollister Avenue.

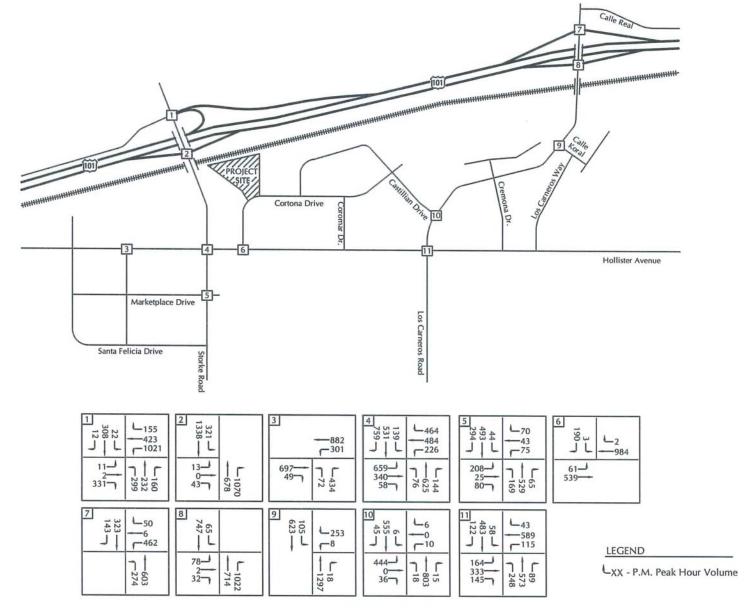


Existing ADT Volumes

Figure 4.13-2



Existing A.M. Peak Hour Volumes



Not to Scale

Existing P.M. Peak Hour Volumes

Figure 4.13-4

Table 4.13-1
Level of Service Criteria for Intersections

LOS	Signalized intersections (V/C Ratio)	Unsignalized intersections (Sec. of delay)	Definition
А	< 0.60	<u><</u> 10	Conditions of free unobstructed flow, no delays and all signal phases sufficient in duration to clear all approaching vehicles.
1 B 1 061-070 1 > 10 and < 15 1		> 10 and <u><</u> 15	Conditions of stable flow, very little delay, a few phases are unable to handle all approaching vehicles.
С	0.71- 0.80	> 15 and <u><</u> 25	Conditions of stable flow, delays are low to moderate, full use of peak direction signal phases is experienced.
D	0.81 - 0.90	> 25 and <u><</u> 35	Conditions approaching unstable flow, delays are moderate to heavy, significant signal time deficiencies are experienced for short durations during the peak traffic period.
E	0.91 – 1.00	> 35 and <u><</u> 50	Conditions of unstable flow, delays are significant, signal phase timing is generally insufficient, congestion exists for extended duration throughout the peak period.
F	> 1.00	> 50	Conditions of forced flow, travel speeds are low and volumes are well above capacity. This condition is often caused when vehicles released by an upstream signal are unable to proceed because of back-ups from a downstream signal.

Source: Highway Capacity Manual, 2000 Edition.

4.13.2 Impact Analysis

a. Methodology and Significance Thresholds. This section describes how the potential for project-generated traffic impacts were determined.

<u>Project-Generated Traffic Projections</u>. Trip generation estimates were calculated for the project based on the rates presented in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 8th Edition. The rates for Apartments (Land Use Code 220) were used to forecast project traffic. It should be noted that the rates for Apartments remain the same in the updated 9th Edition of ITE's Trip Generation Manual.

<u>Cumulative Traffic Projections</u>. Cumulative traffic volumes were forecast using the City's traffic model, which was updated in 2012 for the traffic study prepared by Linscott, Law, and Greenspan for the Village at Los Carneros Residential Project. The cumulative forecasts include traffic generated by approved and pending projects proposed within the City of Goleta as well as development of the UCSB Long Range Development Plan, the Santa Barbara Airport Specific Plan and expansion, and regional growth in the Goleta-Santa Barbara area.

The traffic model also assumes key roadway improvements that are planned in the Goleta area. The key improvements in the vicinity of the project site include: (1) <u>restriping of Storke Road between Hollister Road and southbound U.S 101 to create a new left-turn lane</u>, (2) construction of a western leg at the Los Carneros Road/Calle Koral intersection to provide access to the Village at Los Carneros Project located

west of the intersection, and (3) construction of a northern leg at the Hollister Avenue/Marketplace Drive intersection to provide access to the proposed Goleta Mixed-Use Village Project.

Table 4.13-2
Existing Levels of Service at Intersections

		A.M. Peak		P.M	. Peak
Intersection	Control	ICU/Delay	LOS	ICU/Delay	LOS
Storke Road/U.S. 101 NB Ramps	Signal	0.71	LOS C	0.69	LOS B
Storke Road/U.S. 101 SB Ramps	Signal	0.78	LOS C	0.73	LOS C
Hollister Avenue/Marketplace Drive	Signal	0.44	LOS A	0.54	OS B
Storke Road/Hollister Avenue	Signal	0.61	LOS B	0.74	LOS C
Storke Road/Marketplace Drive	Signal	0.35	LOS A	0.53	LOS A
Hollister Avenue/Cortona Drive (a)	Stop-Sign	8.5 sec.	LOS A	13.4 sec.	LOS B
Los Carneros Road/U.S. 101 NB Ramps	Signal	0.55	LOS A	0.56	LOS A
Los Carneros Road/U.S. 101 SB Ramps	Signal	0.54	LOS A	0.77	LOS C
Los Carneros Road/Calle Koral	Signal	0.46	LOS A	0.66	LOS B
Los Carneros Road/Castillian Drive	Signal	0.39	LOS A	0.65	LOS B
Hollister Avenue/Los Carneros Road	Signal	0.44	LOS A	0.65	LOS B
Hollister Avenue/Coromar Drive	<u>Signal</u>	0.352	LOS A	<u>0.461</u>	LOS A

Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15,2012, and Supplemental Traffic Analysis for the Cortona Apartments Project – City of Goleta, dated April 16, 2014.

<u>Parking Demand Analysis</u>. Parking requirements for the proposed project were calculated based on parking rates for one-bedroom, two-bedroom, and three-bedroom apartments, and for visitor parking, in the City's Zoning Ordinance. However, the actual parking demand may be different than the Zoning Ordinance parking requirements. In order to evaluate the adequacy of the proposed parking supply ATE reviewed the data collected at similar apartment complexes in the Goleta area site as well as empirical parking data for similar land-uses contained in the ITE Parking Generation and the ULI Shared Parking reports. Parking demand surveys were conducted at the Willow Springs apartment complex, located in the City of Goleta, in order to develop a peak parking demand rate for local apartments.

<u>Congestion Management Program Analysis</u>. The Santa Barbara County Association of Governments (SBCAG) has developed a set of traffic impact thresholds to assess the impacts of land use decisions made by local jurisdictions on regional transportation facilities located within the Congestion Management Program (CMP) roadway system. The following guidelines were developed by SBCAG to determine the significance of project-generated traffic impacts on the regional CMP system.



⁽a) Unsignalized intersection. LOS based on average weighted control delay per vehicle in seconds.

- For any roadway or intersection operating at "Level of Service" (LOS) A or B, a
 decrease of two levels of service resulting from the addition of project-generated
 traffic.
- 2. For any roadway or intersection operating at LOS C, project-added traffic that results in LOS D or worse.
- 3. For intersections within the CMP system with existing congestion, the following table defines significant impacts.

Level of Service	Project-Added Peak Hour Trips
LOS D	20
LOS E	10
LOS F	10

4. For Highways or Highway segments with existing congestion, the following table defines significant impacts.

Level of Service	Project-Added Peak Hour Trips
LOS D	100
LOS E	50
LOS F	50

<u>Significance Thresholds.</u> The City of Goleta's CEQA traffic impact thresholds were used for this analysis and include the following criteria:

- A. The project will result in a significant impact on transportation and circulation if proposed project traffic increases the volume to capacity (V/C) ratio at local intersections by the values provided in Table 4.13-3.
- B. The project's access to a major road or arterial road would require access that would create an unsafe situation, a new traffic signal, or major revisions to an existing traffic signal.
- C. The project would add traffic to a roadway that has design features (e.g., narrow width, road-side ditches, sharp curves, poor sight distance, inadequate pavement structure) that would become a potential safety problem with the addition of project traffic.
- D. Project traffic would utilize a substantial portion of an intersection's capacity where the intersection is currently operating at acceptable levels of service, but with cumulative traffic would degrade to or approach LOS D (V/C 0.80) or lower. Substantial is defined as a minimum change of 0.03 for an intersection which would operate from 0.80 to 0.85, a change of 0.02 for an intersection which would operate from 0.86 to 0.90 and a change of 0.01 for an intersection which would operate greater than 0.90 (LOS E or worse).

Table 4.13-3
Significant Changes in Level of Service

Level of Service (including Project)	Increase in V/C or Trips Greater Than		
А	0.20		
В	0.15		
С	0.10		
Or the a	ddition of		
D	15 trips		
E	10 trips		
F	5 trips		

In addition to the CEQA impact thresholds, the City of Goleta has developed the administrative policy of defining a significant roadway impact if a project would increase traffic volumes by more than 1.0% (either project-specific or project contribution to cumulative impacts) on roadways that currently exceed the Acceptable Capacity or are forecast to exceed the Acceptable Capacity under cumulative conditions.

b. Project Impacts and Mitigation Measures.

<u>Trip Generation</u>. Trip generation estimates were calculated for the project based on the rates presented in the Institute of Transportation Engineers (ITE) Trip Generation Manual. The rates for Apartments (Land Use Code 220) were used to forecast project traffic. Table 4.13-4 presents the trip generation estimates for the project.

Table 4.13-4
Project Trip Generation

		Average Daily		A.M. Pe	ak Hour	P.M. Peak Hour	
Land Use	Size	Rate	Trips	Rate	Trips (In/Out)	Rate	Trips (In/Out)
Apartments	176 Units	6.65	1,170	0.51	90 (18/72)	0.62	109 (70/39)

Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15, 2012.

As shown in Table 4.13-4, the project would generate 1,170 average daily trips, 90 A.M. peak hour trips, and 109 P.M. peak hour trips.

<u>Trip Distribution</u>. Trip distribution percentages were developed for the project based on existing traffic flows, previous traffic studies, consideration of the population centers in the

surroundingarea, as well as input from City of Goleta staff. Table 4.13-5 shows the trip distribution percentages developed for the project.

Table 4.13-5
Project Trip Distribution

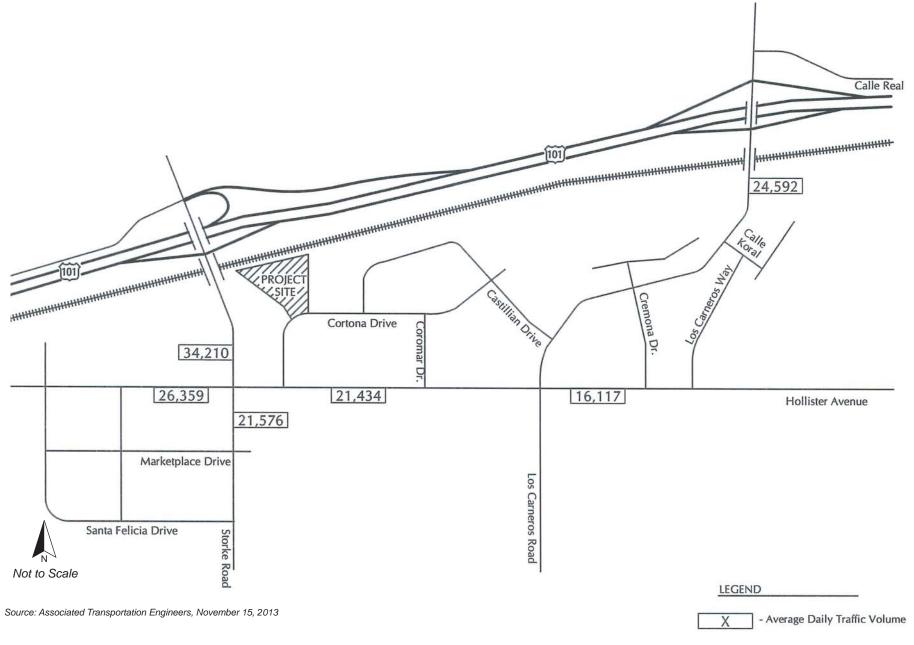
Origin/Destination	Direction	Percentage
U.S. 101		
- Via Storke Road	West	5%
- Via Storke Road	East	25%
- Via Los Carneros Road	East	20%
	East	10%
Hollister Avenue	West	5%
Los Carneros Road	South	10%
Charles Dood	North	5%
Storke Road	South	15%
Calle Real	East	5%
Total		100%

Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15, 2012.

Impact T-1 Project-generated traffic would substantially increase existing traffic volumes on the segment of Storke Road north of Hollister Avenue. A new northbound lane on Storke Road would be required to increase roadway capacity. Impacts related to roadway segment volume increases would be Class II, significant but mitigable.

As shown in Table 4.13-4, the proposed project would generate an estimated 1,170 daily trips, including 90 trips during A.M. peak hours and 109 trips during P.M. peak hours. Figure 4.13-5 shows the estimated ADT volumes on roadways near the project site after adding project-generated traffic to existing traffic. Table 4.13-6 presents the Existing and Existing +Project roadway volumes and identifies the potential impacts of the project's traffic additions based on the City of Goleta's capacity thresholds.

Table 4.13-6 shows that the segment of Storke Road north of Hollister Avenue is forecast to carry volumes above the City of Goleta's acceptable capacity rating with the addition of traffic generated by the proposed project. It is the City of Goleta's administrative practice to define a significant impact when a project would increase existing traffic volumes by more than 1.0% on any roadway that is exceeding the City's designated Acceptable Capacity. Table 4.13-6 shows that the project would increase the existing traffic volume on the roadway segment of Storke Road north of Hollister Avenue by 1.2%, thus generating a significant roadway impact.



Existing + Project ADT Volumes

Figure 4.13-5

Table 4.13-6
Existing + Project Roadway Volumes

Roadway Segment	Acceptable Capacity	Existing ADT	Existing + Project ADT	% Change	Significant Impact?
Storke Road n/o Hollister Avenue	34,000	33,800	34,210	1.2%	Yes
Storke Road s/o Hollister Avenue	34,000	21,400	21,576	0.8%	No
Hollister Avenue w/o Storke Road	34,000	26,300	26,359	0.2%	No
Hollister Avenue e/o Storke Road	34,000	21,200	21,434	1.1%	No
Hollister Avenue e/o Los Carneros Road	34,000	16,000	16,117	0.7%	No
Los Carneros Road s/o U.S. 101	34,000	24,300	24,592	1.2%	No

.2012, Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15

Impacts on Hollister Avenue e/o Storke Road and Los Carneros Road s/o U.S. 101 are not significant because neither roadway carries traffic volumes currently exceeding the Acceptable Capacity or forecast to exceed the Acceptable Capacity under cumulative conditions.

<u>Mitigation Measures</u>. The following measure would address the project-specific impact related to the traffic volume on northbound Storke Road between Hollister Avenue and U.S. 101.

T-1 Storke Road North of Hollister Avenue. The permittee must design and construct or monetarily contribute to the construction of an additional northbound lane along Storke Road that would extend from Hollister Avenue to the existing right-turn that serves the U.S. 101 southbound on-ramp at the Storke Road interchange. The new northbound lane must be designed to increase the Acceptable Capacity of Storke Road from Hollister Avenue to the U.S. 101 southbound on-ramp to 47,000 ADT and serve as an acceptor lane and would allow westbound right-turns from Hollister Avenue onto Storke Road to become a free movement. Full improvements for a northbound lane are required as Development Plan conditions/mitigation measures of approval for traffic impacts associated with other nearby projects, including the Westar Mixed-Use Village project, Cabrillo Business Park project, and Rincon Palms Hotel. If another project implements these traffic improvements before the City issues the first certificate of occupancy clearance at the Cortona Apartments project, the permittee must pay a fair-share contribution of the cost incurred to implement this improvement.

The construction of the additional northbound through lane improvements along Storke Road or the monetary contribution to construction of these improvements must be implemented under one of the following scenarios:

- 1) If another project has implemented these improvements, then the permittee must pay the project's fair-share contribution to the developer of the improvements in accordance with any City reimbursement agreement for these improvements in effect at that time.
- 2) If another project has not implemented these improvements before the timing requirements for implementation of this mitigation measure, the permittee must design and construct the additional lane improvements. Under this scenario, the City would establish a reimbursement agreement that would require future projects

- contributing to traffic impacts necessitating these improvements to pay the project developer their pro-rata share of the improvement costs.
- 3) If GTIP improvements are identified for this location before project approval, the permittee must pay GTIP fees to the GTIP fund.

Plan Requirements and Timing:

Scenario #1

In the event that the permittee pays a monetary contribution for the additional northbound through lane improvements, such contribution must be paid pursuant to any applicable reimbursement agreement and before any Certificate of Occupancy.

Scenario #2

In the event that the permittee constructs the additional northbound lane improvements:

- a. The design plans of the additional northbound through lane improvements described above must be submitted to the Public Works Director, or designee for review before issuance of a grading permit.
- b. Plans must be approved prior to the issuance of the first grading permit for residential buildings.
- c. The permittee must enter into an improvement agreement for the construction of the additional northbound lane improvements, in a form approved by the City Attorney and post a performance security deemed adequate by the Public Works Director, or designee, to cover the cost of all such improvements before issuance of a grading permit and construct the improvements before the first certificate of occupancy.

Scenario #3

In the event that the permittee must pay a monetary contribution for the additional northbound lane improvements such contribution must be paid per the current GTIP ordinance.

Monitoring: The Public Works Director, or designee, must verify roadway design and approval the issuance of any Land Use Permit for the project. The Public Works Director, or designee, must verify posting of an adequate performance security in an amount accepted by the Public Works Director, or designee, for these improvements before issuance of a Land Use Permit and verify completion of construction of the improvement per the approved plans prior to issuance of the first occupancy clearance.

In the event that the permittee pays a monetary contribution for the additional northbound lane improvements under scenarios 1 or 3, the Public Works Director, or designee, must verify such contribution was consistent with the reimbursement agreement or applicable GTIP fees.

Residual Impact. As shown in Table 4.13-6, project-generated traffic, when added to existing traffic volumes on roadway segments, would not exceed the City's acceptable capacity rating except for the segment of Storke Road north of Hollister Avenue. Mitigation Measure T-1, which involves the planned addition of a new northbound lane, would reduce potential impacts to this roadway segment

to a less than significant level if operational by issuance of a certificate of occupancy. However, if the planned northbound lane is not operational at that time, the project would be subject to a fair-share payment program to implement the improvement. Therefore, impacts on roadway segments under the Existing + Project scenario would be reduced to a less than significant level.

Impact T-2 Project-generated traffic would increase existing turning volumes at intersections in the study area. However, Existing + Project traffic levels at intersections would operate at LOS C or better. In addition, the project's driveway to Cortona Drive would not result in substantial vehicle queues or delay. However, queuing on eastbound Hollister Avenue at the Hollister Avenue/Cortona Drive intersection may cause delay. Impacts would be Class II, significant but mitigable.

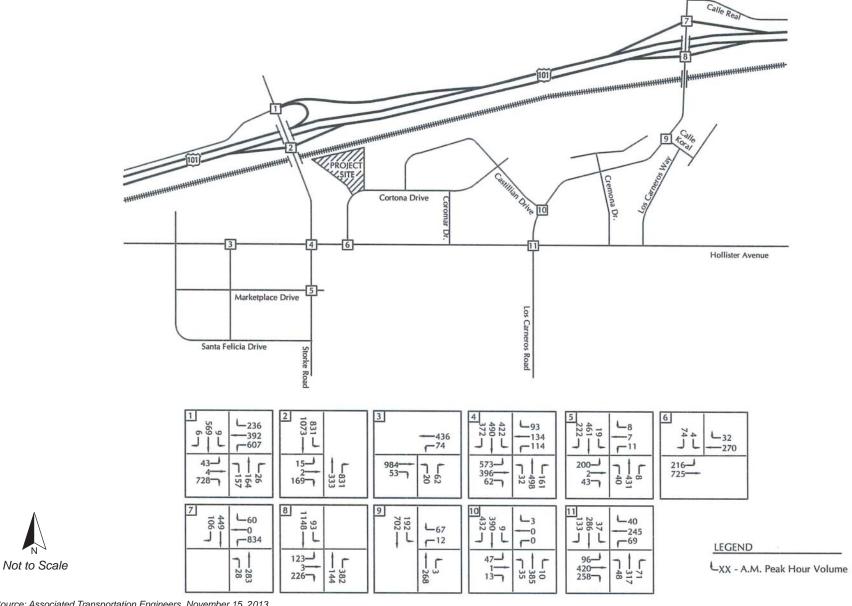
Levels of service were calculated for the study area intersections assuming the Existing + Project traffic volumes shown in Table 4.13-6. Figures 4.13-6 and 4.13-7, respectively, show Existing + Project levels of service during A.M. and P.M. peak hours. Table 4.13-7 compares the Existing and Existing+ Project levels of service and identifies project-specific impacts for intersections during the A.M peak hour.

Table 4.13-7
Existing + Project A.M. Peak Hour Levels of Service

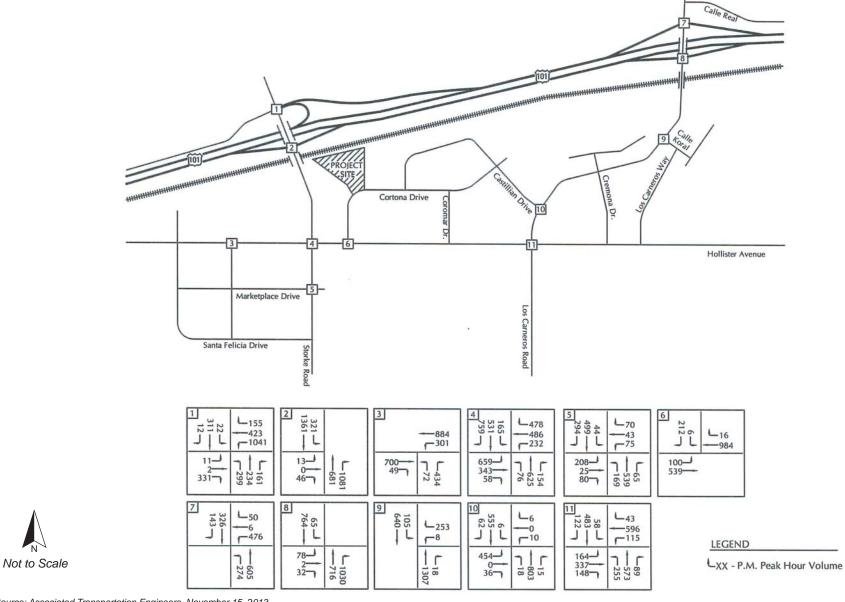
Intersection	Existing		Existing + Project		Project-	Significant
microconon	ICU	LOS	ICU	LOS	Added Trips	Impact?
U.S. 101 NB Ramps/Storke Road	0.71	LOSC	0.71	LOS C	13	No
U.S. 101 SB Ramps/Storke Road	0.78	LOSC	0.79	LOS C	34	No
Hollister Avenue/Marketplace Drive	0.44	LOSA	0.44	LOS A	4	No
Hollister Avenue/Storke Road	0.61	LOS B	0.61	LOSB	52	No
Marketplace Drive/Storke Road	0.35	LOS A	0.35	LOSA	14	No
Hollister Avenue/Cortona Drive (a)	8.5 sec.	LOS A	8.8 sec.	LOS A	58	No
U.S. 101 NB Ramps/Los Carneros Road	0.55	LOSA	0.55	LOSA	7	No
U.S. 101 SB Ramps/Los Carneros Road	0.54	LOS A	0.54	LOS A	14	No
Los Carneros Road/Calle Koral	0.46	LOS A	0.46	LOS A	21	No
Los Carneros Road/Castillian Drive	0.39	LOS A	0.40	LOS A	21	No
Hollister Avenue/Los Carneros Road	0.44	LOS A	0.45	LOS A	17	No
Hollister Avenue/Coromar Drive	0.352	LOS A	0.360	LOS A	<u>17</u>	<u>No</u>

Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15,2012, and Supplemental Traffic Analysis for the Cortona Apartments Project – City of Goleta, dated April 16, 2014.

(a) Unsignalized intersection. LOS based on average weighted control delay per vehicle in seconds.



Existing + Project A.M. Peak Hour Traffic Volumes



Source: Associated Transportation Engineers, November 15, 2013

Existing + Project P.M. Peak Hour Traffic Volumes

Table 4.13-8 compares the Existing and Existing + Project levels of service and identifies project-specific impacts for intersections during P.M peak hours.

Table 4.13-8
Existing + Project P.M. Peak Hour Levels of Service

	Exist	ing	Existing +	Project	Project-	Significant
Intersection	ICU	LOS	ICU	LOS	Added Trips	Impact?
U.S. 101 NB Ramps/Storke Road	0.69	LOS B	0.70	LOS B	26	No
U.S. 101 SB Ramps/Storke Road	0.73	LOS C	0.73	LOS C	40	No
Hollister Avenue/Marketplace Drive	0.54	LOS A	0.54	LOS A	5	No
Hollister Avenue/Storke Road	0.74	LOS C	0.75	LOS C	61	No
Marketplace Drive/Storke Road	0.53	LOS A	0.53	LOS A	16	No
Hollister Avenue/Cortona Drive (a)	13.4 sec.	LOS B	13.8 sec.	LOS B	78	No
U.S. 101 NB Ramps/Los Carneros Road	0.56	LOS A	0.56	LOS A	19	No
U.S. 101 SB Ramps/Los Carneros Road	0.77	LOS C	0.78	LOS C	27	No
Los Carneros Road/Calle Koral	0.66	LOS B	0.66	LOS B	27	No
Los Carneros Road/Castillian Drive	0.65	LOS B	0.65	LOS B	27	No
Hollister Avenue/Los Carneros Road	0.65	LOS B	0.66	LOS B	21	No
Hollister Avenue/Coromar Drive	0.461	LOS A	0.468	LOS A	21	<u>No</u>

Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15,2012, and Supplemental Traffic Analysis for the Cortona Apartments Project – City of Goleta, dated April 16, 2014.

Tables 4.13-7 and 4.13-8 show that the study area intersections are forecast to operate at LOS C or better with the addition of project traffic during both the A.M. and P.M. peak hours. Projected changes in intersection volumes would not exceed the City's project-specific traffic impact thresholds.

The operational analysis for the Hollister Avenue/Cortona Drive intersection also included a review of vehicle delays and queuing at the intersection. The intersection provides storage for eastbound vehicles turning left onto Cortona Drive. The project is forecast to add 11 A.M. peak hour left-turns and 39 P.M. peak hour left-turns from Hollister Avenue to Cortona Drive. The addition of peak hour project traffic would increase the peak queues 1 to 2 vehicles.

Based on Table 4.13-8, the project would not generate significant impacts to the study area intersections under the Existing + Project scenario.

⁽a) Unsignalized intersection. LOS based on average weighted control delay per vehicle in seconds.

The operational analysis for the Hollister Avenue/Cortona Drive intersection included a review of vehicle delays and queuing at the intersection. The intersection currently provides approximately 100 feet of storage within the striped eastbound left-turn pocket on Hollister Avenue, which can accommodate a queue of 4 to 5 vehicles. Field observations found that vehicles turning left pull forward of the existing median nose, providing a functional storage of approximately 140-feet, which can accommodate a queue of 6 to 7 vehicles. The queues measured in the field during the A.M. and P.M. periods found maximum queues of 4 vehicles for short periods of time (less than 1 minute). The project is forecast to add 11 A.M. peak hour left-turns and 39 P.M. peak hour left-turns from Hollister Avenue to Cortona Drive. The addition of project traffic would increase the peak queues by 1 to 2 vehicles. Mitigation is required to address potential delays caused by queuing traffic.

<u>Mitigation Measures</u>. The following measure would address the impact related to vehicle queuing on eastbound Hollister Avenue at the Hollister Avenue/Cortona Drive intersection.

T-2 Hollister Avenue/Cortona Drive Intersection. The median on eastbound Hollister Avenue at the Hollister Avenue/Cortona Drive intersection shall be extended to maximize the striped left-turn storage area. Median extension and restriping shall expand the length of the striped left-turn pocket to 145 feet.

Plan Requirements and Timing: The permittee shall <u>design and construct</u> the median extension and restriping. Such <u>mitigation</u> must be <u>completed</u> before issuance of a Certificate of Occupancy.

Monitoring: The Public Works Director, or designee, must verify that-<u>the</u> roadway design has been approved before issuance of a grading permit. The Public Works Director or designee must verify that the required work was satisfactorily completed before certificate of occupancy.

<u>Residual Impact</u>. With implementation of this mitigation measure, the future queues would be accommodated within the left-turn pocket and would not affect the eastbound Hollister Avenue traffic flows. Impacts would be less than significant.

Impact T-3

Six intersections and a highway segment in the CMP network are located in the vicinity of the project site. With the addition of project-generated traffic to existing traffic volumes, CMP intersections are forecast to operate at LOS C or better. Therefore, impacts to the CMP network would be Class III, less than significant.

The following study area intersections are located within the CMP network:

- Storke Road/U.S. 101 NB Ramps
- Storke Road/U.S. 101 SB Ramps
- Storke Road/Hollister Avenue
- Los Carneros Road/U.S. 101 NB Ramps
- Los Carneros Road/U.S. 101 SB Ramps
- Los Carneros Road/Hollister Avenue

As shown in Tables 4.13-7 and 4.13-8, the CMP intersections are forecast to operate at LOS C or better under Existing + Project traffic conditions.

In addition to the intersections listed above, the project is forecast to add 34 P.M. peak hour trips to northbound U.S. 101 and 19 P.M. peak hour trips to southbound U.S. 101. The 2009 CMP report shows that the segment of U.S. 101 between Los Carneros Road and Fairview Avenue operates at LOS D during the A.M. and P.M. peak hours. The CMP threshold for Highway impacts is 100 trips for segments operating at LOS D. Based on these CMP impact criteria, the project would not generate a significant impact to highway segments located in the study area.

The project would not generate a significant impact to the CMP network based on applicable impact criteria. Cumulative impacts on CMP intersections are discussed below in the Cumulative Impacts section.

Mitigation Measures. Mitigation is not required as impacts would be less than significant.

Residual Impact. Impacts would be less than significant without mitigation.

Impact T-4 The proposed project would generate additional demand for public transportation. Improvements of the existing bus stop on eastbound Hollister Avenue at the K Mart commercial center would be necessary to accommodate additional demand for public buses. Impacts to alternative transportation would be Class II, significant but mitigable.

The proposed project would generate an estimated 480 residents, which would increase demand for alternative transportation facilities. As discussed in Section 2.0, *Project Description*, the project would provide 30 bike parking spaces. Currently, the closest westbound bus stop to the project site is on the northwest corner of Hollister Avenue and Glen Annie and the closest eastbound bus stop to the project site is on the southeast corner of Hollister Avenue and Storke Road.

To accommodate additional demand for bus service, a bus stop with a shelter, bench, and other appurtenances, would be provided on Hollister Avenue in front of the K Mart commercial center, in response to Transportation Element Policy TE 7.12. Provision of this planned bus stop would ensure that future residents of the proposed project have improved access to public transit which provides connections between western Goleta, the Isla Vista area, and downtown Santa Barbara. The bus stop is not included as part of the proposed project. The proposed project would be required to fund construction of this facility. Therefore, impacts related to alternative transportation would be significant but mitigable.

<u>Mitigation Measures</u>. The following measure would address the impact related to increased demand for bus service.

T-4 Bus Stop. The permittee must construct an additional bus shelter (including but not limited to an additional shelter with solar night lighting, a 4-foot bench inside the shelter, and an additional trash/recycling receptacle) at the existing bus stop on Hollister in front of the K Mart commercial center, consistent with Transportation Element Policy TE 7.12 in the Goleta General Plan. The bus stop

must be constructed in accordance with MTD Bus Stop Standards for LNI Manufacture Design Shelters and City standards.

Plan Requirements and Timing: <u>The bus stop improvement must be designed before issuance of a building permit and constructed before issuance of the first certificate of occupancy.</u>

Monitoring: The <u>Public Works</u> Director, or designee, must ensure that <u>the bus</u> stop design has been completed before issuance of any building permit for the project. The <u>Public Works Director</u>, or designee, must verify completion of the bus stop per the approved design before the first certificate of occupancy.

Residual Impact. With implementation of this conditional mitigation measure to fund construction of a MTD bus stop, impacts related to alternative transportation would be reduced to a less than significant level.

Impact T-5 The proposed project would provide 330 parking spaces on-site. Based on various measures of parking demand, the proposed supply of parking would be sufficient to meet anticipated demand from future residents and visitors to the project site. Therefore, impacts related to parking would be Class III, less than significant.

The proposed project would provide 330 parking spaces in surface-level parking areas located throughout the project site. Covered carports would include 171 spaces (including 2 ADA accessible spaces), and the remaining 151 spaces (including 6 ADA accessible spaces) would be located in uncovered surface areas.

City of Goleta Zoning Ordinance Parking Requirements. The City's Zoning Ordinance parking requirements were calculated for the project. Table 4.13-9 presents the results of the calculations. Table The City's parking requirement for the project is 327 spaces. The proposed parking supply of 330 spaces would meet the City's Zoning Ordinance parking requirement and provide a reserve supply of 4 parking spaces.

Table 4.13-9
City of Goleta Zoning Ordinance Parking Requirements

Land Use	Size	Parking Rate	Spaces Required
1 Bedroom Apartments	66 Units	1 Space/Unit	66 Spaces
2 Bedroom Apartments	100 Units	2 Spaces/Unit	200 Spaces
3 Bedroom Apartments	10 Units	2.5 Spaces/Unit	25 Spaces
Visitor Parking	176 Units	1 Space/5 Units	<u>36</u> Spaces
Total Spaces			32 <u>7</u> Spaces

<u>Parking Demand Analysis</u>. The proposed project's actual parking demand may be different than the Zoning Ordinance parking requirements. In order to evaluate the adequacy of the proposed parking supply, ATE reviewed the data collected at similar apartment complexes in the Goleta area as well as

empirical parking data for similar land-uses contained in the ITE Parking Generation 3 and the ULI Shared Parking 4 reports.

Goleta Apartment Parking Demand Rates. Parking demand surveys were conducted at the Willow Springs apartment complex, located in Goleta, in order to develop a peak parking demand rate for local apartments. Table 4.13-10 presents the parking demand for the proposed project based on the rate developed from the parking surveys conducted at the Willow Springs site.

Table 4.13-10
Peak Parking Demand - Goleta Apartment Parking Demand Rates

Land Use	Size	Peak Demand Rate	Peak Parking Demand
Apartments	176 Units	1.74 Spaces/Unit	306 Spaces

Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15, 2012.

The peak parking demand for the project is 306 spaces based on the rate developed based on the parking surveys conducted at the apartments located in Goleta. The proposed parking supply of 330 spaces would accommodate the peak parking demand and provide a reserve of 20 spaces.

ITE Parking Demand Rates. Table 4.13-11 presents the peak parking demand for the proposed project based on the ITE parking demand rates for apartments. The table presents the parking demand forecasts developed using both the average and 85th percentile parking demand rates presented in the ITE report.

Table 4.13-11
Peak Parking Demand - ITE Rates

Land use	Size	Peak Demand Rate	Peak Parking Demand
Apartments	176 Units	1.20 Spaces/Unit (average rate)	211 Spaces
Apartments	176 Units	1.46 Spaces/Unit (85th percentile rate)	257 Spaces

Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15, 2012.

The peak parking demands forecast for the project range from 211 to 257 spaces based on the ITE rates. The proposed parking supply of 330 spaces would accommodate the peak parking demand and provide a reserve of 73 to 119 spaces when using the ITE empirical data rates.

ULI Parking Demand Rates. Table 4.13-12 presents the peak parking demand for the proposed project based on parking demand rates from the Urban Land Institute (ULI) for rental residential land uses. The peak parking demand for the project is forecast at 299 spaces based on the ULI rates. The proposed parking supply of 330 spaces would accommodate the peak parking demand and provide a reserve of 31 spaces when using the ULI empirical data rates.

Table 4.13-12
Peak Parking Demand Rates - ULI Rates

Demand Generator	Size	Peak Demand Rate	Peak Parking Demand
Residents	176 Units	1.5 Spaces/Unit	273 Spaces
Visitors	176 Units	0.15 Spaces/Unit	26 Spaces
Total			299 Spaces

Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15, 2012.

Based on of the various parking demand rates discussed above, including surveyed rates at the comparable Willow Springs apartment site, ITE rates, and ULI rates, the proposed parking supply would be sufficient to accommodate anticipated demand from residents and visitors. Therefore, impacts related to parking would be less than significant.

Mitigation Measures. Mitigation is not required because impacts would be less than significant.

Residual Impact. Impacts would be less than significant without mitigation.

c. Cumulative Impacts. Traffic at roadway segments and intersections in the study area was modeled based on the City's February 2012 Cumulative Development List, which was the most current list at time of completion of ATE's traffic study. Comparison to the most recent City list from March 2013 does not indicate any approved and pending project changes that could significantly affect the traffic analysis findings. The traffic analysis therefore provides an accurate forecast of cumulative traffic conditions. It should be noted that the cumulative analysis does not assume any capacity improvement projects that will be implemented in the near future (Los Carneros Road south of U.S. 101, Los Carneros Road south of Hollister and Storke Road north of Hollister Avenue and therefore provides a conservative analysis.

A discussion of potential cumulative impacts at roadway segments, intersections, and CMP facilities follows.

<u>Roadway Segments.</u> Average daily traffic volumes after development of cumulative projects in the Goleta area were modeled and quantified as shown in Figure 4.13-8. Cumulative + Project ADT volumes are shown on Figure 4.13-9. Table 4.13-13 lists the Cumulative and Cumulative + Project roadway volumes and identifies the impacts of project-added traffic based on the City of Goleta's capacity thresholds.

The addition of project-generated traffic to cumulative development in the Goleta area would incrementally increase existing ADT on roadway segments near the project site. However, impacts would be less than significant based on City thresholds.

<u>Intersections</u>. Turning volumes at intersections in the study area were modeled based on cumulative development in the Goleta area for A.M. and P.M. peak hours, as shown by Figures 4.13-10 and 4.13-11. Figures 4.13-14 and 4.13-15, respectively, show Cumulative + Project turning volumes during A.M. and P.M. peak hours. Tables 4.13-14 and 4.3-15 compare traffic volumes at intersections under the Cumulative and Cumulative + Project scenarios for the A.M. and P.M. peak hours.

Table 4.13-13
Cumulative + Project Roadway Volumes

Roadway Segment	Acceptable Capacity	Cumulative ADT	Cumulative + Project ADT	% Change	Significant Impact?
Storke Road n/o Hollister Avenue	34,000	40,737	41,147	1.0%	No
Storke Road s/o Hollister Avenue	34,000	27,667	27,843	0.6%	No
Hollister Avenue w/o Storke Road	34,000	31,095	31,154	0.2%	No
Hollister Avenue e/o Storke Road	34,000	29,409	29,643	0.8%	No
Hollister Avenue e/o Los Carneros Road	34,000	18,764	18,881	0.6%	No
Los Carneros Road s/o U.S. 101	34,000	32,404	32,696	0.9%	No

Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15,2012.

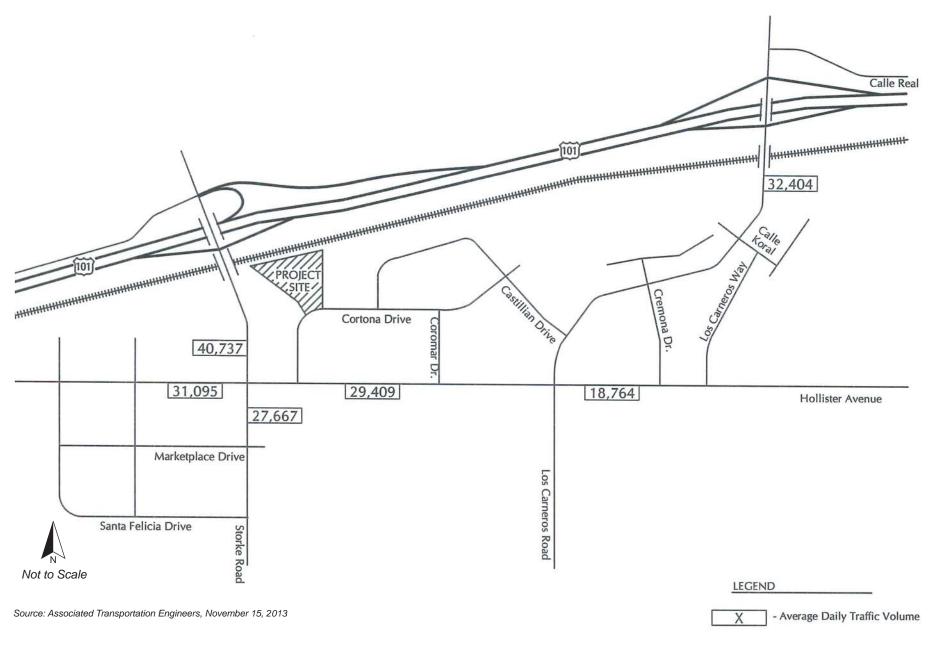
Table 4.13-14
Cumulative + Project A.M. Peak Hour Levels of Service

	Cumulative		Cumulative + Project		Change in	Significant
Intersection	ICU	LOS	ICU	LOS	v/c	Impact?
U.S. 101 NB Ramps/Storke Road	0.79	LOS C	0.79	LOS C	0.001	No
U.S. 101 SB Ramps/Storke Road	0.90	LOS D	0.91	LOSE	0.009	No
Hollister Avenue/Marketplace Drive	0.49	LOS A	0.49	LOS A	0.000	No
Hollister Avenue/Storke Road	0.82	LOS D	0.83	LOS D	0.003	No
Marketplace Drive/Storke Road	0.39	LOS A	0.39	LOSA	0.001	No
Hollister Avenue/Cortona Drive (a)	11.4 sec.	LOS B	11.5 sec.	LOS B	N/A	No
U.S. 101 NB Ramps/Los Carneros Road	0.65	LOS B	0.65	LOS B	0.001	No
U.S. 101 SB Ramps/Los Carneros Road	0.67	LOS B	0.67	LOS B	0.002	No
Los Carneros Road/Calle Koral	0.64	LOS B	0.64	LOS B	0.002	No
Los Carneros Road/Castillian Drive	0.56	LOS A	0.57	LOS A	0.012	No
Hollister Avenue/Los Carneros Road	0.66	LOS B	0.67	LOS B	0.004	No
Hollister Avenue/Coromar Drive	0.607	LOS B	<u>0.615</u>	LOS B	0.008	<u>No</u>

Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15,2012, and Supplemental Traffic Analysis for the Cortona Apartments Project – City of Goleta, dated April 16, 2014.

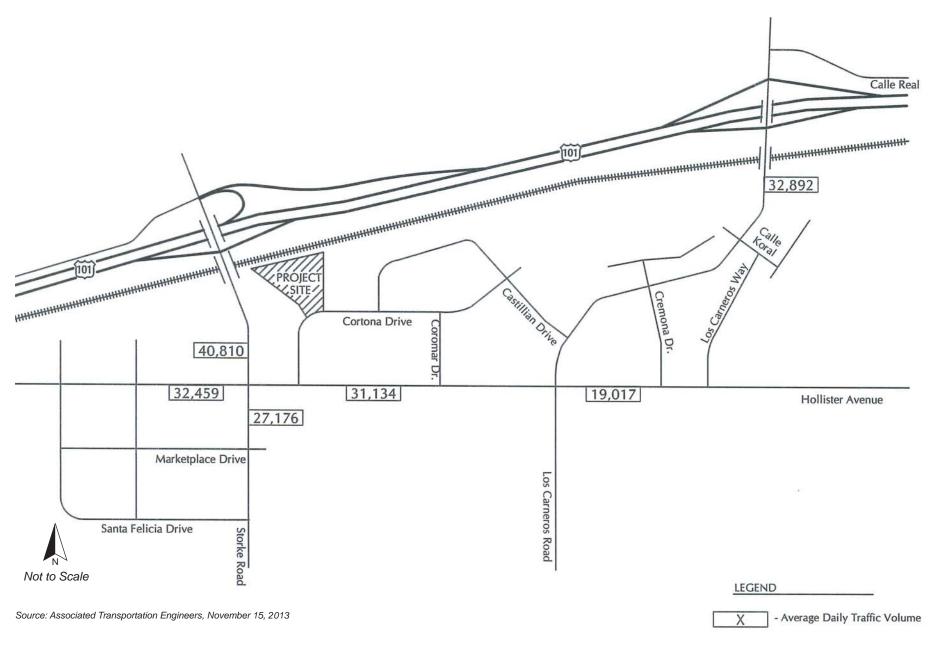
(a) Unsignalized intersection. LOS based on average weighted control traffic delay per vehicle in seconds. LOS calculations assume SB approach restriped to provide separate left- and right-turn lanes as part of the Rincon Palms Hotel Project.

 $\textbf{\textit{Bolded}} \ volumes \ exceed \ \textit{City's} \ acceptable \ operating \ standard \ of \ \textit{LOS} \ \textit{C}.$



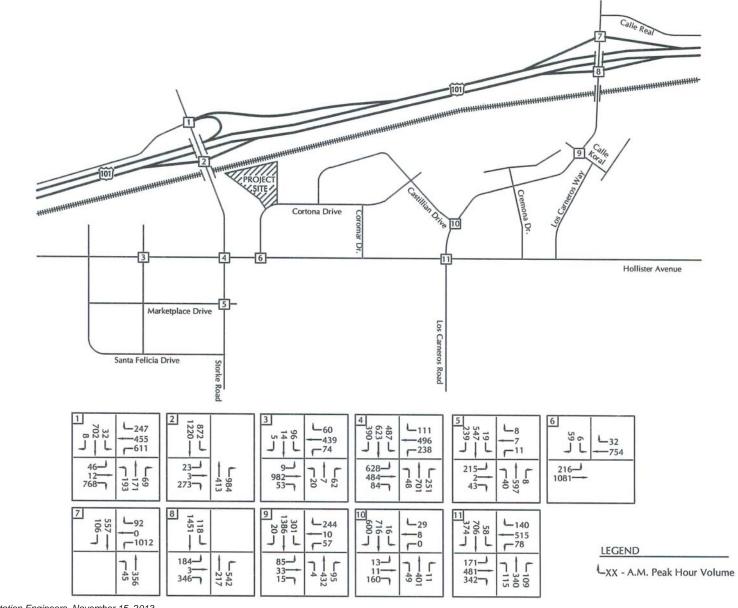
Cumulative ADT Volumes

Figure 4.13-8

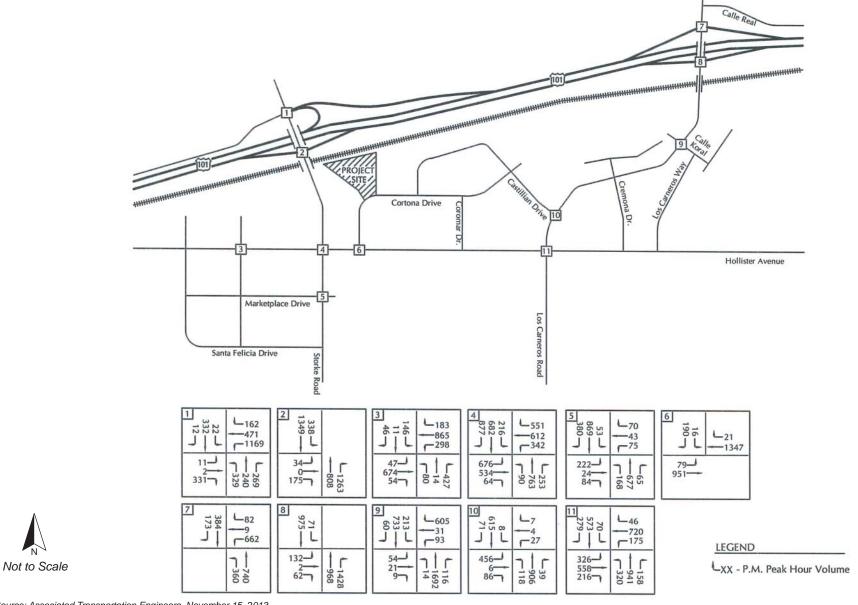


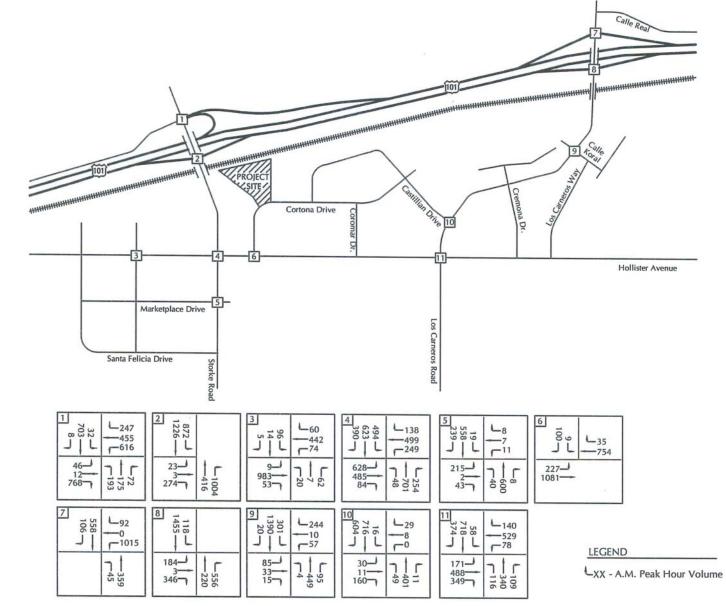
Cumulative + Project ADT Volumes

Figure 4.13-9

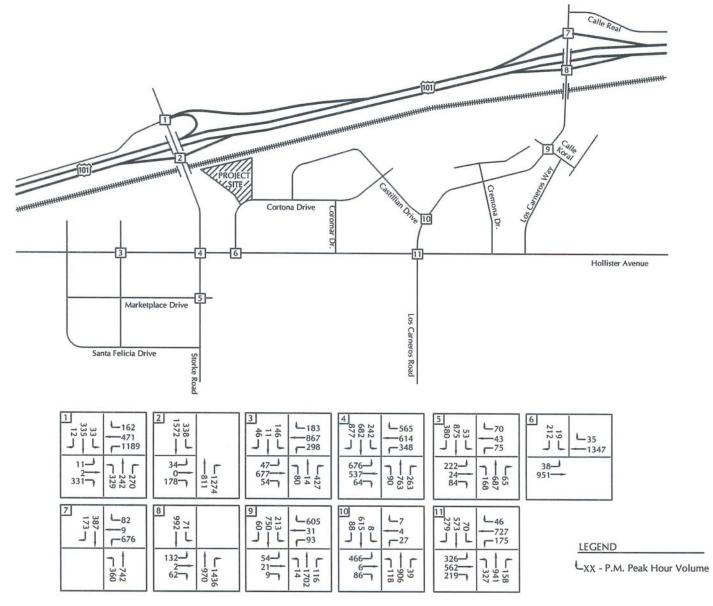


Not to Scale





Not to Scale



Not to Scale

Table 4.13-15
Cumulative + Project P.M. Peak Hour Levels of Service

Intersection	Cumulative		Cumulative + Project		Change in	Significant
microconon	ICU	LOS	ICU	LOS	V/C	Impact?
U.S. 101 NB Ramps/Storke Road	0.77	LOSC	0.77	LOSC	0.005	No
U.S. 101 SB Ramps/Storke Road	0.88	LOS D	0.88	LOS D	0.005	No
Hollister Avenue/Marketplace Drive	0.59	LOS A	0.59	LOS A	0.001	No
Hollister Avenue/Storke Road	0.81	LOS D	0.82	LOS D	0.009	No
Marketplace Drive/Storke Road	0.65	LOS B	0.65	LOS B	0.001	No
Hollister Avenue/Cortona Drive (a)	18.5 sec.	LOSC	20.0 sec.	LOSC	N/A	No
U.S. 101 NB Ramps/Los Carneros Road	0.71	LOS C	0.71	LOSC	0.005	No
U.S. 101 SB Ramps/Los Carneros Road	1.04	LOSF	1.05	LOS F	0.005	No
Los Carneros Road/Calle Koral	0.53	LOS A	0.53	LOS A	0.005	No
Los Carneros Road/Castillian Drive	0.71	LOSC	0.72	LOS C	0.006	No
Hollister Avenue/Los Carneros Road	0.82	LOS D	0.82	LOS D	0.006	No
Hollister Avenue/Coromar Drive	0.724	LOS C	0.730	LOS C	0.006	<u>No</u>

Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15,2012, and Supplemental Traffic Analysis for the Cortona Apartments Project – City of Goleta, dated April 16, 2014.

Cumulative impacts to traffic at the intersection of Cortona Drive and the proposed project's driveway were also considered. The driveway would be designed to provide an inbound and outbound lane that would be separated by a raised median island. The outbound driveway approach would be stop controlled at the Cortona Drive intersection. The methodology outlined in the Highway Capacity Manual for two-way stop sign controlled intersections was used to evaluate driveway operations. Table 4.13-16 presents the peak hour operations for the project driveway under Cumulative + Project conditions.

Table 4.13-16
Project Driveway Level of Service

Intersection	A.M. Delay/LOS	P.M. Delay/LOS	
Cortona Drive/Project Driveway			
Inbound Left Turns	7.3 Sec/LOS A	8.1 Sec/LOS A	
Outbound Left & Right Turns	9.7 Sec/LOS B	11.1 Sec/LOS B	

Source: ATE, Cortona Apartments Project: Updated Traffic and Circulation Study, November 15, 2012.

⁽a) Unsignalized intersection. LOS based on average weighted control traffic delay per vehicle in seconds. LOS calculations assume SB approach restriped to provide separate left- and right-turn lanes as part of the Rincon Palms Hotel Project.

Bolded volumes exceed City's acceptable operating standard of LOS C.

The delays at the driveway equate to LOS A-B operations, representing relatively free-flow operations with acceptable delays. The proposed single driveway will operate sufficiently considering the volumes forecast for the project and the adjacent street.

CMP Cumulative Impacts. Tables 4.13-14 and 4.13-15 indicate that the U.S. 101 SB Ramps/Storke Road and Hollister Avenue/Los Carneros Road intersections are forecast to operate at LOS D under Cumulative + Project conditions. The project is forecast to add more than 20 P.M. peak hour trips to both of these locations, which would be considered a significant impact under CMP criteria. The Hollister Avenue/Storke Road and U.S. 101 SB Ramps/Los Carneros Road intersections are forecast to operate at LOS E under Cumulative + Project conditions. The project is forecast to add more than 10 P.M. peak hour trips to these locations, which would be considered a significant impact under CMP criteria.

The CMP requires that deficiency plans be prepared when an intersection reaches LOS E. The City of Goleta has adopted LOS D as the acceptable operating standard for the Storke Road/Hollister Avenue intersection. The Goleta Transportation Improvement Program (GTIP) was established to collect funds to implement future identified improvements within the City. The GTIP includes programmed improvements for the Starke Road and Los Carneros Road corridors as well as the Storke Road/Hollister Avenue, U.S. 101 SB Ramps/Los Carneros Road, and Los Carneros Road/Hollister Avenue intersections, which would return service levels to LOS C or better (LOS D or better at the Storke Road/Hollister Avenue intersection). These improvements would therefore meet City standards and remain consistent with the CMP criteria. The proposed project would be required to contribute traffic fees to the GTIP for implementation of the planned improvements. Therefore, the proposed project would have a less than significant cumulative impact on CMP facilities.