



DATE: March 23, 2016

AGENDA ITEM # 3

**TO:** Bicycle and Pedestrian Advisory Commission  
**FROM:** David Kornfield, Planning Services Manager—Advanced Planning  
**SUBJECT:** 16-D-01—LOLA, LLC—4880 El Camino Real

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## RECOMMENDATION

Provide input regarding the project to the City Council through the Planning and Transportation Commission

## DISCUSSION

This project is a 21-unit, multiple-family residential condominium building located at the former Hunan Homes restaurant site at 4880 El Camino Real.

The site has two means of access from the street. The access to the underground garage from the road is via a 20-foot wide, two-way driveway. The access to the pedestrian lobby from the public sidewalk is via a path that ranges from eight to 15 feet wide. The pedestrian path would be lit with bollard style fixtures.

A four-foot wide public sidewalk is proposed across the entire frontage. A three-foot wide planting area at the back of the curb is shown to separate the sidewalk from the roadway following early direction from Planning staff. The project replaces a dislocated street tree and maintains the light standard in the sidewalk area.

The project provides bicycle parking in accordance with the Valley Transportation Agency guidelines. Two, class II bicycle spaces are shown with rack along the pedestrian path in the front yard (see pages A-1 and L1.1 of the plans). Ten, Class I bicycle spaces are contained in the parking garage Bicycle Lounge accessible by the ramp, stairs and elevator (see page A-0 of the plans).

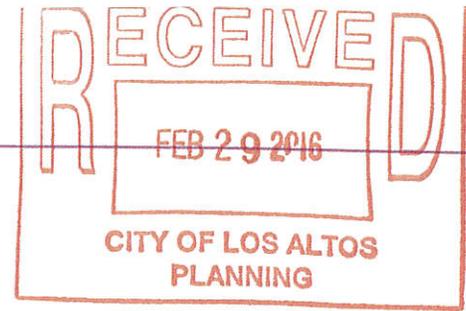
The project's traffic report does not raise any concerns with the pedestrian or bicycle circulation or access (see Attachment A). Upon further consideration of the sidewalk design, however, the City staff recommends providing a wider public sidewalk and minimalizing the sidewalk landscaping to the street trees only. Staff will be recommending that the applicant provide a seven-foot wide public sidewalk.

### Attachments:

- A. Traffic Report dated February 25, 2016 by Hexagon Transportation Consultants, Inc.



HEXAGON TRANSPORTATION CONSULTANTS, INC.



February 25, 2016

Mr. David Kornfield  
City of Los Altos  
1 North San Antonio Road  
Los Altos, CA 94022

**Subject:** *Traffic Report for the Proposed 4880 El Camino Real Residential Development Project in Los Altos, California*

Dear Mr. Kornfield:

Per your request, Hexagon Transportation Consultants, Inc. is submitting this traffic report for the proposed 4880 El Camino Real development in Los Altos, California. The project, as proposed, would include 21 condominium units. It would replace an existing 3,600-square foot restaurant onsite. Because the project is projected to generate fewer than 50 daily trips, City staff have stated that a full transportation impact analysis will not be required. Instead, the report will focus on documenting project trip generation and providing an assessment of onsite circulation and vehicular access.

#### **Project Traffic Estimates**

Through empirical research, data has been collected that correlate to common land uses their propensity for producing traffic. Thus, for the most common land uses there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development. The trip generation estimates for the proposed project are based on rates obtained from the Institute of Transportation Engineers' (ITE) publication *Trip Generation*, 9<sup>th</sup> Edition.

Based on trip generation rates applicable to residential condos, it is estimated that the project would generate 165 daily trips, with 15 trips occurring during the AM peak commute hour and 17 trips occurring during the PM peak commute hour. The peak commute hour is the peak 60 minute period of traffic demand during the commute periods, which are 7:00 AM to 9:00 AM in the morning, and 4:00 PM and 6:00 PM in the evening.

As previously mentioned, the proposed project would replace an existing restaurant of approximately 3,600 square feet. Based on ITE rates, the existing restaurant use generates approximately 324 daily trips, with 3 trips occurring during the AM peak commute hour and 27 trips occurring during the PM peak commute hour. Thus, the replacement of the existing restaurant use with 21 condominiums would result in 158 fewer daily trips, 12 additional AM peak hour trips, and 10 fewer PM peak hour trips. The project trip generation estimates are presented in Table 1. Because the project would result in a traffic reduction on a daily basis, its impact on the greater transportation network in the context of the City's level of service policy would be negligible.



**Table 1**  
**Project Trip Generation Estimates**

Land Use	Size unit	land use code	Daily rate	Daily Trips	AM Peak Hour			PM Peak Hour				
					Rate	In	Out	Total	Rate	In	Out	Total
<b>Proposed Project [a]</b>												
Condo	21 d.u.	230	7.88	165	0.71	3	12	15	0.80	11	6	17
<b>Existing use [b]</b>												
Restaurant	3.6 ksf	931	89.95	<u>324</u>	0.81	<u>3</u>	<u>0</u>	<u>3</u>	7.49	<u>18</u>	<u>9</u>	<u>27</u>
<b>Total [a] - [b]</b>					-158	0	12	12		-7	-3	-10
All Rates based on ITE <i>Trip Generation</i> , 9th Edition, for Condo and Quality Restaurant uses, regression rates where appropriate												

**Project Site Circulation and Access**

The project's site circulation and access were evaluated in accordance with generally accepted traffic engineering standards based on project plans dated February 4<sup>th</sup>, 2016. The project would provide a single two-way driveway onto El Camino Real. Additional parking and/or potential loading space for trucks would be provided along the project frontage on El Camino Real. A description of the various design elements of the site circulation and access is provided below.

**Street Level.** The project driveway would be approximately 20 feet wide and serve a single guest parking stall at street-level directly adjacent to the front lobby. Because this parking stall is located approximately 20 feet from El Camino Real, it may sometimes be blocked by exiting vehicles. In addition, the sight distance between a driver backing out of the parking stall and a vehicle exiting the garage is restricted. For these reasons, this space should not be utilized for vehicular parking. It should be signed and striped as no parking and utilized solely as a turn-around area for vehicles that mistakenly enter the driveway and would otherwise be required to back onto El Camino Real. To improve the ability of a vehicle to back into the space, 3-foot curb radii are recommended between the drive aisle and the stall.

**Ramp Design.** The proposed garage ramp is approximately 60 feet long with an 18.4% grade and two transitions of 9.2% each at the top and bottom of the ramp. Transitions are generally required when ramp grades exceed 10% to prevent vehicles from bottoming out. Commonly cited parking publications recommend grades of up to 16% on ramps where no parking is permitted, but grades of up to 20% are cited as acceptable when garages are attended, ramps are covered (i.e. protected from weather) and not used for pedestrian walkways. Thus, the proposed 18.4% ramp grade could be adequately traversed by vehicles as designed, but will require a slightly greater level of caution than a less steep ramp. It should be noted that the vast majority of ramp users will be residents, and thus, will quickly become accustomed to the slightly steeper grade.



**Gated Garage Entrance.** The project driveway would connect directly to a parking garage ramp, which would lead to a below-grade parking structure. A remote controlled gate would be present at the bottom of the ramp. The distance between the gated entrance to the site's parking garage and the sidewalk on El Camino Real would be 75 feet, or enough space for three vehicles to queue. According to ITE, there would be approximately 11 PM peak hour trips inbound at the project driveway, or an average rate of approximately one vehicle every five and a half minutes. According to the publication *Parking* by Weant and Levinson, the typical capacity for a single lane coded-card reader is between 225 vehicles per hour and 550 vehicles per hour. Given this, it is anticipated that the inbound vehicle queues would rarely exceed one or two vehicles during the peak commute period. Thus, the garage gate as located, would most likely provide adequate capacity and vehicular storage to accommodate the proposed demand, and vehicle queues would not spill back to El Camino Real. Prior to final design, the design and operation of the proposed gate system should be reviewed by City staff to confirm the service flow rate and access to guest parking are adequate.

**Garage Design.** Within the parking structure, all parking would be provided at 90 degrees to the main drive aisle. There is no designated turn around space within the garage if parking cannot be located; the garage is effectively a single dead end aisle that serves mostly reserved parking. In the event that all guest spaces are occupied, vehicles would be required to make multiple point turns to exit the garage. This situation, while not ideal, is generally considered acceptable in urban areas where land is scarce and the traffic volumes are very low. To reduce the likelihood of a vehicle turning around in the garage, a parking guidance sign could be provided outside the garage to alert drivers when guest parking in the garage is full.

**Puzzle Parking System.** There would be five guest stalls provided in the garage, two of which would be ADA accessible. The remaining 42 parking spaces would be served by a 26-foot wide drive aisle and a puzzle lift system. The lift system shown on the project plans would stack two vehicles in each parking stall – one level of parking at basement level and one below in the "pit." Upon arriving at the garage, future patrons would utilize a remote to open their designated, secured, parking bay. If their vehicle is located in the pit, the puzzle lift system will shift parked vehicles on the upper level laterally, as needed, to make space to raise the vehicle on the lower level. The project applicant has also suggested that a 3-level puzzle lift system could be considered for the project. The differences in operation between a 2-level system and 3-level system are very minor, as vehicles are still being shifted laterally on the base level and moved up or down one level. Hexagon conducted observations at an existing two level lift system at the Avalon Development at 651 Addison Street in Berkeley, California. Based on these observations, the time to access a vehicle in the puzzle lift system can vary from 30 seconds to one minute and 45 seconds, depending on the configuration of vehicles within the system. Hexagon estimates the average time to access a parked vehicle in the puzzle lift system to be approximately one minute, which equates to a service rate of approximately 60 vehicles per hour. To determine whether the proposed lift system would work adequately, it is useful to consider the frequency of vehicles entering and exiting the parking garage during the highest hours of the day. According to ITE, the peak period of traffic generation at the project would be during the PM commute period. During this peak 60-minute period, the project would generate 17 trips, or about one trip every three and a half minutes. Given that the lift system could accommodate up to 60 vehicles per hour, it is anticipated that the proposed lift system would have adequate capacity to accommodate the number of trips into and out of the proposed parking garage. Vehicle queues and person queues (waiting to retrieve their vehicle) would rarely exceed two within the garage.



**Access to El Camino Real.** Outbound at the project driveway on El Camino Real, the low volume of project traffic would result in brief delays for vehicles. Outbound vehicle queues would rarely exceed one or two vehicles. Sight distance at the project driveway would be adequate provided (1) the landscaping is low level within 10 feet of the curb face on El Camino Real (the height of the planned landscaping is not shown) and (2) it is not blocked by parked vehicles. Parking should be prohibited on El Camino Real within 10 feet west of the driveway (i.e. looking left for an outbound driver from the project driveway).

**Truck Access.** Provisions for garbage collection and truck loading are not shown on the current plan. Prior to final design, the applicant should work with City staff to ensure truck access is adequately accommodated. Given the current design, truck access would likely occur via the existing curb parking on El Camino Real along the project frontage. A marked loading area may be considered for this location.

**Bike Parking.** The Valley Transportation Authority (VTA) provides guidelines for bike parking in its publication *Bike Technical Guidelines*. Class I spaces are defined as spaces that protect the entire bike and its components from theft, such as in a secure designated room or a bike locker. Class II spaces provide an opportunity to secure at least one wheel and the frame using a lock, such as bike racks. For multi-family dwelling units, VTA recommends one Class I space per three dwelling units and one Class II space per 15 dwelling units. For the proposed project, this would equate to seven Class I spaces and two Class II spaces. The project site plan shows two Class II bike parking spaces near the building entrance, between El Camino Real and the lobby. The project also provides for ten Class I bike parking spaces in a secured area (keyed gate) under the garage ramp. Thus, the project would exceed the bike parking standards recommended by VTA.

**Pedestrian Access.** The project would provide a paved walkway between the existing sidewalk on El Camino Real and the building entrance.

Generally, the design of the project site circulation and access is consistent with urban design practices. The presence of the garage ramp, short onsite drive aisle, and "confined" feel of the parking garage will serve to keep vehicles operating at very low speeds. In addition, the low traffic volume onsite, one trip every three and a half minutes, means that the frequency of vehicle conflicts will be relatively low. Under such circumstances, small parking structures usually operate adequately without any operational problems.

## Conclusions

This analysis produced the following conclusions:

- Relative to the existing restaurant use, the project would result in a traffic reduction on a daily basis. Therefore, its impact on the greater transportation network in the context of the City's level of service policy would be negligible.
- The project's parking lift and front entrance gate systems would have adequate capacity to accommodate the anticipated traffic demand. Prior to final design, the design and operation of the proposed gate system should be reviewed by City staff to confirm the service flow rate and access to guest parking are adequate.



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- Because of its proximity to El Camino Real and restricted sight distance, the street level parking space should be signed and striped as no parking and utilized solely as a turn-around area for vehicles that mistakenly enter the driveway. To improve the ability of a vehicle to back into the space, 3-foot curb radii are recommended between the drive aisle and the stall.
- Commonly cited parking publications recommend grades of up to 16% on ramps where no parking is permitted, but grades of up to 20% are cited as acceptable under certain conditions. The proposed 18.4% ramp grade could be adequately traversed by vehicles as designed, but will require a slightly greater level of caution.
- There is no designated turn around space within the garage if guest parking cannot be located. In the event that all guest spaces are occupied, vehicles would be required to make multiple point turns to exit the garage. While not ideal, this situation is generally considered acceptable in urban areas where land is scarce and the traffic volumes are very low. To reduce the likelihood of a vehicle turning around in the garage, a parking guidance sign could be provided outside the garage to alert drivers when guest parking in the garage is full.
- Outbound at the project driveway on El Camino Real, the low volume of traffic would result in brief delays and short vehicle queues. Sight distance at the project driveway would be adequate provided (1) the landscaping is low level within 10 feet of the curb face on El Camino Real and (2) it is not blocked by parked vehicles. Parking should be prohibited on El Camino Real within 10 feet west of the driveway.
- Prior to final design, the applicant should work with City staff to ensure truck access is adequately accommodated. Given the current design, truck access would likely occur via the existing curb parking on El Camino Real along the project frontage. A marked loading area may be considered for this location.
- The project would exceed the bike parking standards recommended by VTA.

If you have any questions, please do not hesitate to call.

Sincerely,

HEXAGON TRANSPORTATION CONSULTANTS, INC.

Brett Walinski T.E.  
Vice President and Principal Associate