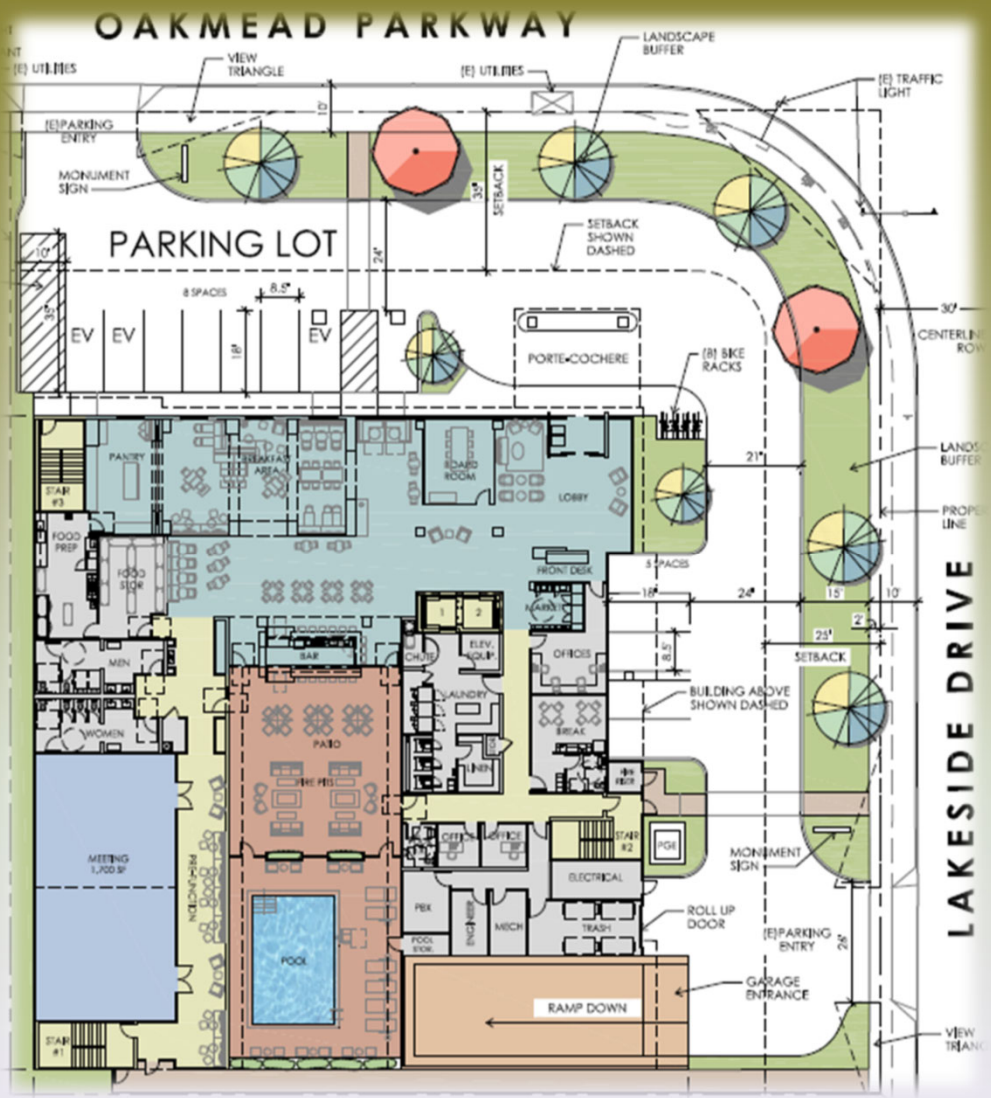
Parking Management Plan for the proposed Hampton Hotel @ 1220 Oakmead Parkway, Sunnyvale, CA

for the City of Sunnyvale

March 3, 2022



Parking Management Plan for Proposed Hampton Hotel located @ 1220 Oakmead Parkway, Sunnyvale, CA

Final Report

Prepared for:
City of Sunnyvale

Prepared by:
Advanced Mobility Group

March 3, 2022

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1.0 INTRODUCTION

INTRODUCTION

This report layout the proposed Parking Management Plan for the future Hampton Hotel to be located at 1220 Oakmead Parkway in the City of Sunnyvale. The purpose of a parking management plan is to manage the use of parking on a property. Based on the City of Sunnyvale Municipal Code § 19.46.160 (c), the parking management plan shall include information about peak-hour use, the total number of parking spaces, distribution of parking on the site, needs of specific users, including employees, guests, residents and patrons, and other applicable information deemed necessary.

AMG prepared a Parking Demand Analysis for the proposed Hampton Hotel and the results indicated that the proposed parking supply is adequate for all employees and guests and is attached in **Appendix A**. This Parking Management Plan is to supplement the parking demand analysis study and provide details about the parking strategies that will be adopted as a part of the plan.

PROJECT DESCRIPTION

The proposed Hampton Hotel will include 152 guestrooms and provide 93 parking spaces. As shown on the site plan, there will be 13 surface parking spaces and 80 spaces in the garage (with 4 accessible parking spaces and 5 EV spaces) as shown in **Appendix B**. Eight short-term and eight long-term bicycle parking are also provided.

Figure 1 provides the time-of-day for parking demand fluctuation based on ITE Parking Generation Manual 5th Edition included in **Appendix C**. As noted, the peak parking utilization is expected to occur between 10 p.m. and 8 a.m during a weekday and 10 p.m. and 9 a.m on the weekend.

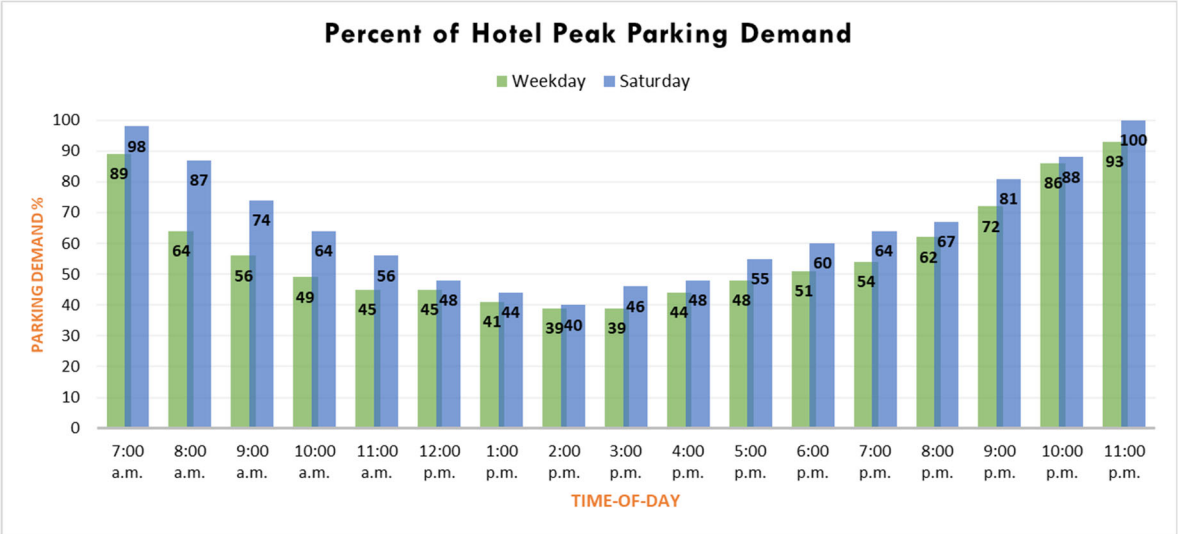


Figure 1: Time-of-Day Hotel Parking Demand Fluctuation

PROPOSED PARKING OPERATIONS

It is assumed that hotel guests will arrive at the hotel either by private or rented car, taxis, Uber/Lyft or airport shuttle service. To ensure effectiveness in managing the available parking spaces, a combination of self-park or use of valet parking would be provided.

Self-parking

Twenty-four of the 80 parking stalls in the hotel garage parking will be open for self-parking as shown in **Exhibit 1**. To verify that only check-in hotel guests use the parking, hotel guests are required to display a parking permit on their dashboard. The permit will help keep non-hotel guests and employees off the parking premises. The parking permit will be provided at hotel check in.

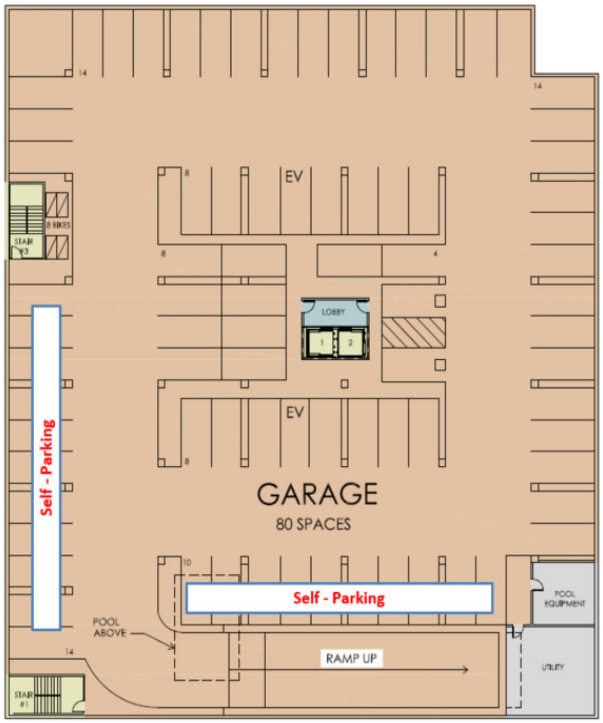


Exhibit 1: Self-Parking Spaces

Valet Parking

There are many benefits to use valet parking. The following are two primary benefits for this hotel:

- Increased parking capacity
- Heightened control, safety and flexibility over a parking lot

Adding valet parking can increase the capacity of an existing lot by up to 15%. Instead of reserving one slot for each guest, staff can stack cars behind one another and even fit them into non-parking spaces.

The valet parking will mainly be operated on the remaining 56 parking stalls that are in the parking garage. Hotel staff members will operate these stalls as valet parking with all vehicles parked and retrieved by hotel staff at no charge.

For convenience of hotel guests, all-day valet parking services will be made available as an option. The valet station will be located near the drop-off area. There will be two valet attendants during the peak hours (7 a.m.-10 a.m. and 4 p.m.-7 p.m.) and one attendant during the off-peak hours. During off-peak hours, the valet attendant may be at the front desk.

Parking Occupancy Monitoring

Generally, when parking occupancy reaches 85% to 90% (when nearly 85% to 90% of all spaces have been occupied), a parking lot or garage could be considered full. It becomes increasingly difficult for a car to circle around a garage to look for a vacant space to park. If parking occupancy monitoring data of a parking garage could consistently demonstrate that the parking occupancy is below the 85% occupancy, it means that customers and staff would have no difficulty finding a parking space.

For a 152-room hotel with 93 proposed parking spaces, this would translate to approximately 130 rooms being sold or 78 parking spaces being used as shown in **Exhibit 2**.

Scenario	Hotel Scenario		Assumed Parking Rate per Room	Estimated Parking Spaces Required	Occupancy
	# Rooms	Unit			
1	152	/room	0.60	91	100%
2	140	/room	0.60	84	92%
3	130	/room	0.60	78	85%

Exhibit 2: 85% Parking Occupancy Scenario

It is proposed that the hotel valet parking staff monitors the parking occupancy of the hotel. If the hotel consistently experiences less than 85% parking occupancy, it would mean the parking spaces is adequate to accommodate hotel customers and staff without using a valet service.

PROPOSED HOTEL-OPERATED SHUTTLE SERVICE

It is a relatively common practice with most business hotels to provide shuttle service as an attractive benefit that comes with staying at the hotel. The shuttle service allows some hotel guests the option to choose not to use a personal vehicle during their stay. Available hotel data has shown that the availability of shuttle services is one of the key factors that result in a lower parking demand at hotels in an urban setting. Due to the hotel's proximity to transit, VTA light rail stations and Caltrain station, there will be a low requirement for a scheduled shuttle service. Therefore, the proposed hotel will provide a full-time on demand complimentary shuttle service.

Shuttle Operation

Typically, hotel guest will request shuttle service a few hours before the trip and the destination should be within a six-mile radius of the hotel. The hotel will provide guests with the option to use a mobile application (such as ShuttleQ) or a shuttle call number to ensure effective management of the shuttle. As necessary, the hotel staff could help manage the shuttle call requests and be the responsible contacts to make the necessary arrangements with the shuttle driver. However, it has been shown that an App such as ShuttleQ is relatively easy to use in this age when most people are familiar with use of Uber/Lyft App.

Major Destinations

Some of the major destinations that the shuttle service will provide could include the following:

- Norman Y. Mineta San Jose International Airport, approximately six miles from the hotel
- Downtown Sunnyvale (Historic Murphy Avenue)
- Lawrence Station, the nearest Caltrain Station, approximately two miles from the hotel

2.0 SUMMARY

Based on the results of AMG parking demand study, it is estimated that the parking demand for the proposed 152 room hotel will be approximately 0.60 stalls per occupied room or less. At 100 percent hotel occupancy, the parking demand for 152 rooms would be 93 stalls that includes guests and employees which is the number of spaces provided.

In summary, the proposed Hampton Hotel project proposes to adopt the following three parking management strategies:

- ***Parking Permit***: All hotel guests will be issued parking permits to display on their dashboard during the duration of the hotel stay. Guests will have an option of self-parking their vehicle. The self-parking will be available on the 24 parking garage stalls.
- ***Valet Parking:*** The remaining 56 stalls in the garage would be use as valet parking with all vehicles parked and retrieved by valet attendants without charge.
- ***Shuttle Service:*** The proposed project proposes the use of complimentary shuttle service to reduce the use of private vehicles and provide the last-mile connection to the transit users.

Appendix A PARKING DEMAND ANALYSIS

AMG ADVANCED MOBILITY GROUP

Technical Memorandum

To:	Perry Patel – President/CEO BPR Hotels	From:	Christopher Thnay, PE, AICP
Address:	953 Industrial Ave #100 Palo Alto, CA 94303		
Email:	ppatel@bprproperties.com	Date:	February 25, 2022

Subject: Parking demand analysis for the proposed Hampton Hotel located at 1220 Oakmead Parkway, Sunnyvale, CA

Introduction

The purpose of the study is to conduct a parking demand analysis for the proposed Hampton Hotel located at 1220 Oakmead Parkway, Sunnyvale, CA. The parking demand analysis will confirm whether the proposed number of parking spaces will adequately accommodate the highest peak period demand of the proposed Hampton Hotel development.

The project proposed to construct a new six (6) story, 152 guest room hotel. Hotel amenities are for hotel guests only and include a fitness room, dining, meeting facilities, patio, and pool. Parking for the hotel is primarily provided in below grade parking garage. 93 parking spaces are proposed.

The proposed project proposed on-site valet parking service and on-demand shuttle service through ShuttleQ. Details are explained in the Parking Management Plan.

Figure 1 shows the vicinity map of the proposed project. **Figure 2** shows the proposed project site plan.

Existing Transportation Facilities and Services in the Vicinity

Existing Bicycle, Pedestrian and Transit Facilities

In the vicinity of the project, Class II bike lanes are available on Oakmead Parkway, Lakeside Drive and E. Arques Avenue.[1]

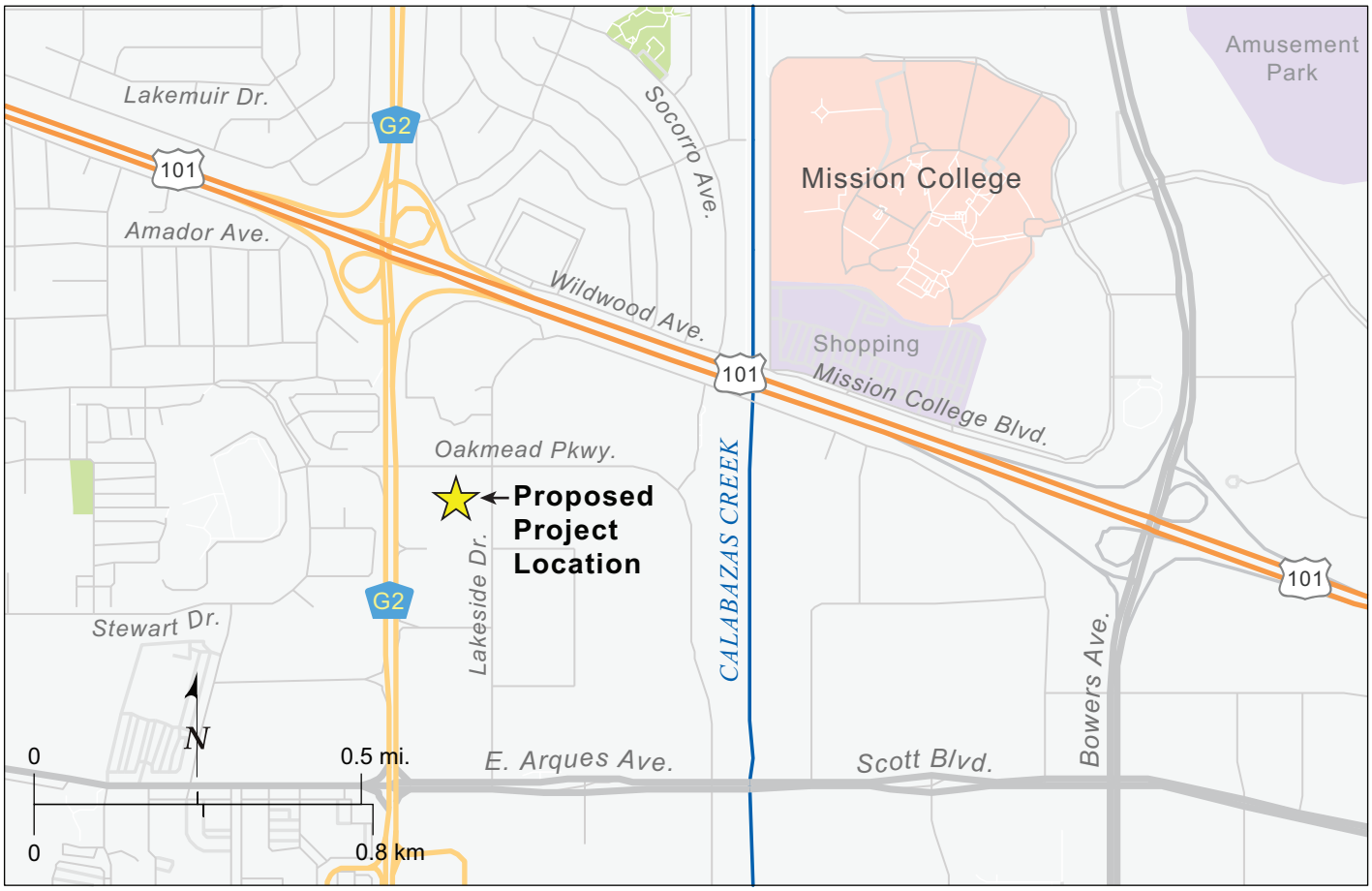
In the study area, crosswalks with pedestrian signal heads and push buttons are located at the signalized intersections of Oakmead Parkway/Lawrence Expressway and Lakeside Drive/ Oakmead Parkway. The crosswalks at the intersections in the study area appear to meet ADA standards.

[1] *City of Sunnyvale bike map*

Parking Analysis and Parking Management Plan for the proposed Hampton Hotel, 1220 Oakmead Parkway, Sunnyvale, CA

Figure 1

Site Vicinity



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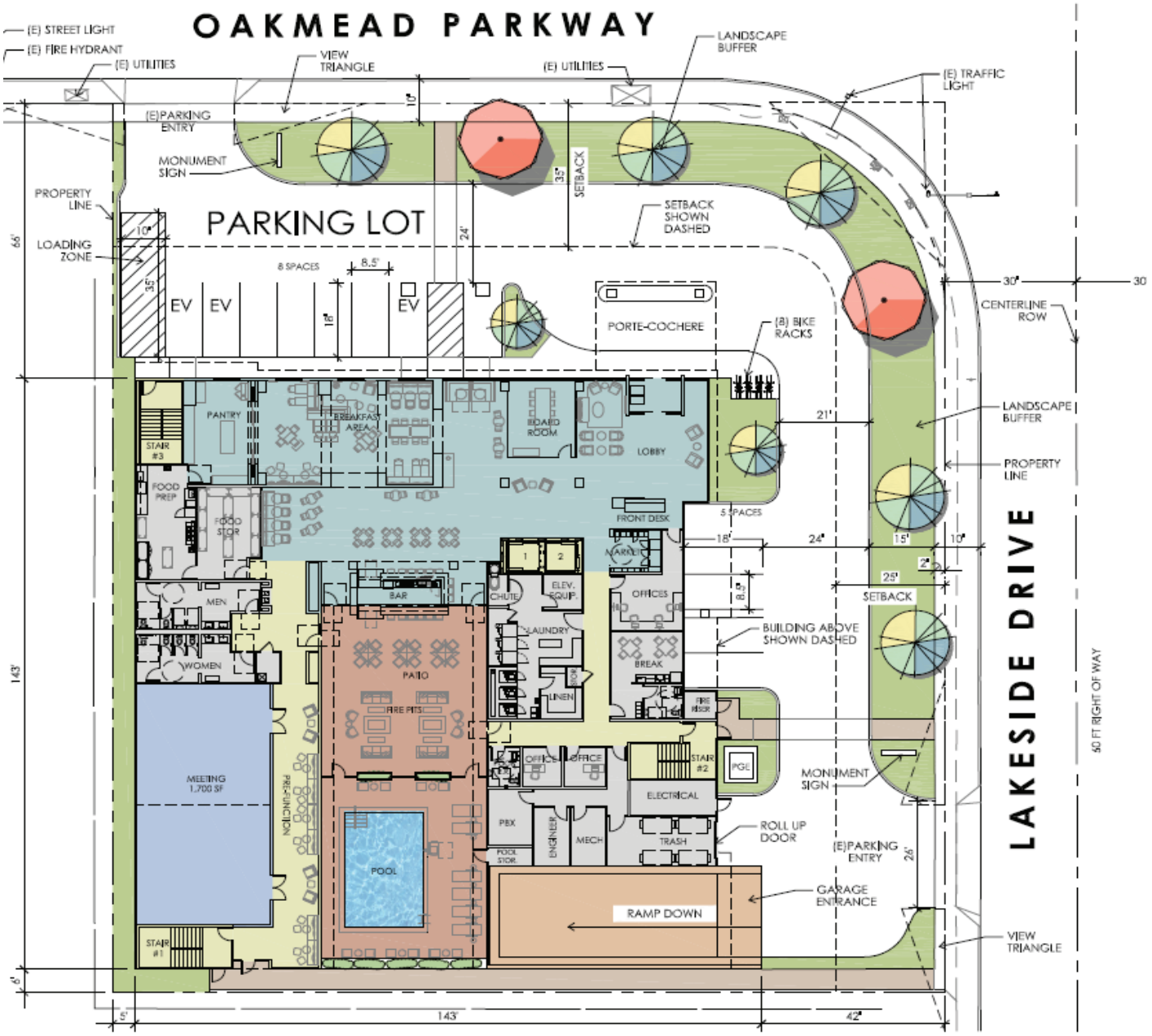
Site Plan

Figure 2



On Oakmead Parkway, continuous sidewalks are present along the east side of the roadway between Lawrence Expressway and E. Arques Avenue. On the west side of the roadway there is no sidewalk present between Lakeway Drive and E. Arques Avenue. Sidewalks are mostly available along both sides of Lakeside Drive.

Existing transit service to the project site is provided by the Santa Clara Valley Transportation Authority (VTA). VTA bus service 55 has a bus stop near the project at Oakmead Parkway/Lawrence Expressway. VTA bus service 20 has a bus stop to the south of the project at Lawrence Expressway and E. Arques Avenue.

The Caltrain Lawrence Station is located approximately 1.5 miles south of the project site. The Orange Line Light Rail Transit (LRT) Line that runs on Tasman Drive is approximately 1 mile to the north and provides connection services to Mountain View, Milpitas, San Jose Airport and downtown San Jose.

Figure 3 shows the existing pedestrian facilities and **Figure 4** shows existing bicycle and transit facilities in the immediate vicinity of the project.

Parking Spaces Required Per City of Sunnyvale Municipal Code

AMG estimated the number of parking spaces required for the proposed project per the City of Sunnyvale 's Municipal Code, Code 19.28.100 which recommends 0.8 space for each hotel room.

Therefore, the total parking spaces required would be 122 spaces for the total 152 guest rooms proposed as shown in **Table 1**. This requirement is higher than the observed hotel parking demand rate and ITE Parking rates. Based on the parking observations the actual parking demand of the project is expected to be significantly lower than the zoning ordinance would require.

Table 1: Parking Spaces Required per City Standards

Total Rooms	City Parking Code	Total Spaces Required
152	0.8 spaces per room	122

Note that the City's minimum parking requirement assumes an estimated 100% occupancy, which is usually not the case for suburban hotels. The U.S. national average is 66.2 % occupancy.[2] It also did not account for ride-hailing services such as Uber and Lyft. Nearly all parking codes that were established more than two decades ago did not reflect the influence of ride-hailing services. These trends reduce parking demand. With the proposed on-demand shuttle service and close proximity to the transit there should be no parking capacity issues, even in the rare event of 100 percent hotel occupancy. Details of the Municipal Code is provided in **Appendix A**.

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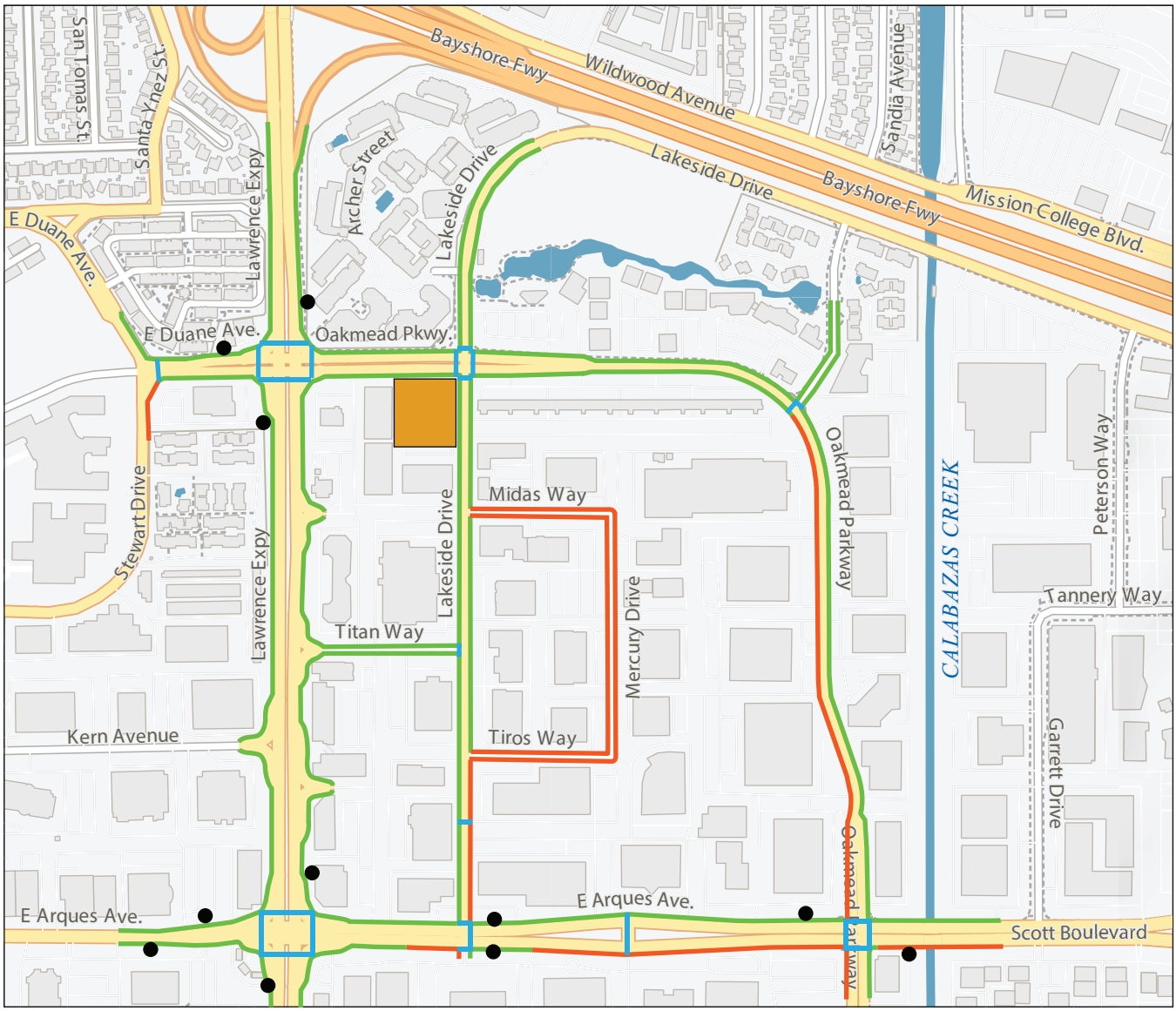
[2] *HNN Newswire. STR: US hotels post another record year in 2018. January 18, 2019. http://www.hotelnewsnow.com/Articles/292373/STR-UShotels-post-another-record-year-in-2018 (Accessed January 4, 2021).*

Pedestrian Map

Figure 3



Base map: MapTiler Planet

LEGEND

- Project Site
- Transit Stop
- Sidewalk
- No Sidewalk
- Crosswalk

N

0 1,000 ft

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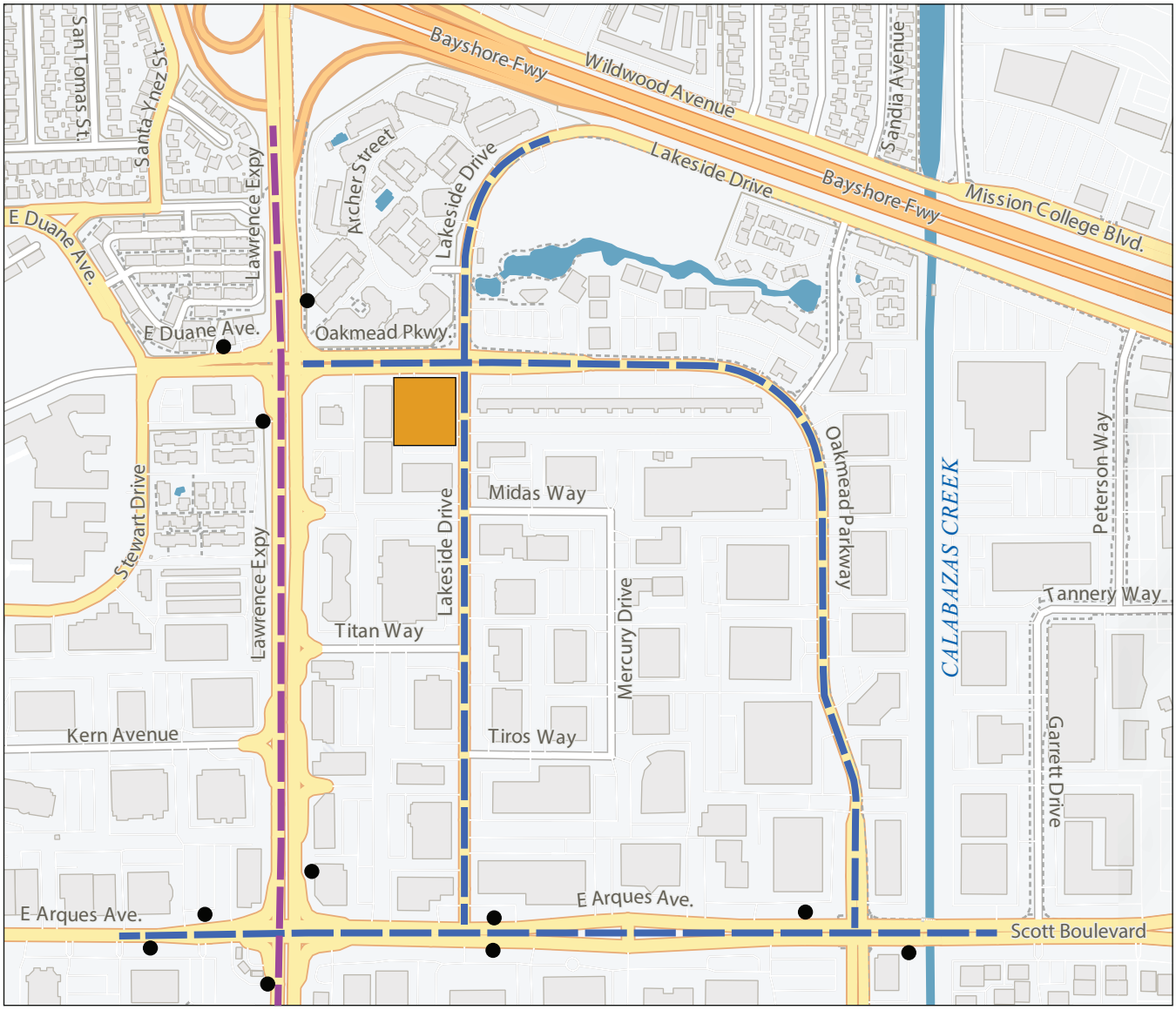
Parking Analysis and Parking Management Plan for the proposed Hampton Hotel, 1220 Oakmead Parkway, Sunnyvale, CA

Figure 4

Bike and Transit Map



Base map: MapTiler Planet

LEGEND

- Project Site
- Transit Stop
- Class II Bike Lanes
- Class III Bike Lanes

N

0 1,000 ft

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ITE Parking Trip Generation Analysis

As a comparison, AMG utilized Institute of Transportation Engineer's (ITE) Parking Generation Manual, 5th Edition to evaluate if the parking demand created by the proposed hotel expansion would be met by parking-spaces provided.

It is our understanding that the proposed Hampton Inn Hotel does not contain any conference facility or restaurant for outside visitors. Hotel amenities are for hotel guests only and include a fitness room, dining, meeting facilities, patio, and pool.

ITE Average Parking Demand Rates

The ITE Parking Generation Manual contains four different types of hotels: Hotel (ITE Code 310), All Suites Hotel (ITE Code 311), Business Hotel (ITE Code 312) and Resort Hotel (ITE Code 330). Based on AMG's review of the ITE information and discussions with the client[3], it was determined that Business Hotel (ITE Code 312) would be the appropriate land use for this study. Detailed descriptions of each hotel types are provided in **Appendix A.**

The ITE Parking Generation Manual provides several statistical information including average, 33rd percentile, 85th percentile and standard deviation. Additional information provided include time-of-day peaking and place – urban vs. suburban. Many agencies use average parking demand rate as the likely peak parking demand for a land use.

The ITE average rate is summarized in **Table 2.**

Table 2: ITE Parking Demand Summary

			Ave. ITE Rate		***ITE Ave. Parking Demand***	
Project Data						
Land Use	***# Rooms***	***Unit***	***Weekday***	***Weekend***	***Weekday***	***Weekend***
Hotel-Business (ITE Land Use 312)	152	/rooms	0.72	0.64	109	97

Based on the results of the ITE average for peak period parking demand, the maximum parking spaces required for the proposed project during the weekday and weekend are 109 spaces and 97 spaces respectively. This assumed 100% occupancy where the U.S. national average is 66.2 % occupancy as mentioned previously. It should also be noted that these average rates consider a wide variety of suburban hotels and thus may not accurately reflect parking demand at hotels in Sunnyvale that cater primarily to business travelers.

2019 Limited-Service Hotels Study (February 2021 ITE Journal)

Until recently, there was mostly anecdotal evidence of the impact of TNC on parking at hotels. The February 2021 ITE Journal[4] published an article that documents the potential impacts of TNC at limited-service hotels, based on parking occupancy data collected in September 2019 and February 2020. The study of five limited-service hotels ("hotels") located in South Florida was based on 35 total field-data-collection observations, seven different observations for each hotel, one for each day of the week. All observations were performed at or near the 1:00 a.m. peak hour of parking occupancy for hotel guest rooms.

A limited-service hotel is defined to have little to no meeting room space, sit-down, and full-service restaurants that would attract outside diners. These hotels are not located on golf courses or the beach. Additionally, food service provided by the limited-service hotels is limited to a small food pantry that offers items for sale on a retail basis, complimentary breakfast for hotel guests, and perhaps a limited-menu, order-at-the-counter restaurant. The article also indicated that the analysis is applicable for limited-service hotels in suburban locations. Therefore, it could be concluded that the type of hotels evaluated is similar to the proposed Hampton Hotel.

As stated in the article, the "*One challenge for planners is to properly determine limited-service hotel parking needs in the absence of significant data and to consider the impacts of ride-app services such as Uber and Lyft.*"

The summary of the results includes the following key facts and conclusions:

1. The hotel room occupancies averaged 84% for 27 studies, exceeding the U.S. national average of 66.2% occupancy.
2. The survey results showed parking demand range from a low of 0.05 to a high of 0.76 parked cars per hotel guest room.
3. Survey results showed that 71% of parking demand fall within the 0.20 to 0.50 parked cars per hotel guest room.
4. The 50th percentile (median) observation is 0.39 parked cars per hotel guest room. Based on this rate 59 spaces would be required for the proposed hotel.
5. The 85th percentile is 0.58 parked cars per hotel guest room. Based on this rate 88 spaces would be required for the proposed hotel while 93 spaces are provided.
6. Increased reliance on ride-apps such as Uber and Lyft have decreased on-site demand for parking spaces.

The referenced 2021 ITE Journal article are contained in **Appendix B**.

Based on the 85th percentile parking demand rate obtained from the February 2021 ITE study, the number of parking spaces required for the proposed Hampton Hotel expansion project is approximately 88 parking spaces as compared to the 109 spaces evaluated using the average rate in the ITE Parking Generation Manual.

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[4] *Parking Requirements for Limited-Service Hotels, February 2021 ITE Journal*

Compare Local Hotel Parking Survey Occupancy

Parking occupancy surveys show how well utilized various parking areas are at different times of the day. AMG utilized three parking surveys conducted in May 2018 of similar-size parking hotels located in the Bay Area near Sunnyvale[5].

Parking surveys for the following hotels (two in Sunnyvale and one in San Jose) were conducted in 2018 (May 12 and 15) at 12:00 a.m. on a Saturday, and on a Tuesday.

- Homewood Suites by Hilton, San Jose North - 4315 N. First Street, San Jose, CA
- Extended Stay America, San Jose – Sunnyvale – 1255 Orleans Drive, Sunnyvale, CA
- Staybridge Suites, Sunnyvale – 900 Hamlin Ct, Sunnyvale, CA

The size of the hotel ranges between 138 and 145 rooms which could be considered representative of the proposed project. These were conducted pre-pandemic (pre-2019) so it could be considered to be conservative and reliable. AMG used the surveyed parking rates to determine the estimated parking demand for the proposed Hampton Hotel project. The results of the parking demand estimates are shown in **Table 3**.

Table 3: Parking Demand Based on Local Hotel Parking Survey Occupancy

Parking Observations for Saturday Saturday (05/12/2018)

			Saturday Parking Occupancy Rate		*Saturday Parking Demand*	
Project Data			*per Room*	*per Occupied Room*	*per Room*	*per Occupied Room*
Land Use	*# Rooms*	*Unit*				
Proposed Hotel	152	/room	0.70	0.47	106	71

Parking Observations for Tuesday (05/15/2018)

			Tuesday Parking Occupancy Rate		*Tuesday Parking Demand*	
Project Data			*per Room*	*per Occupied Room*	*per Room*	*per Occupied Room*
Land Use	*# Rooms*	*Unit*				
Proposed Hotel	152	/room	0.61	0.61	93	93

The results indicated that parking demand is approximately 71 spaces during a Saturday and 93 spaces on a weekday based on occupied room. The hotel proposes to provide 93 parking spaces. Results of the three parking surveys conducted in May 2018 are contained in **Appendix B.**

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[5] *Parking Management Plan for the Home 2 Suites Hotel, Sunnyvale, California, December 20, 2019*

Potential Factors in Reduction of Parking Demand

Growth of Transportation Network Company (TNC)

As mentioned earlier, major changes in car rental by the hotel guests have been observed by the hotel industry. Several studies have shown that ride-hailing companies, like Uber and Lyft, are changing transportation habits and are having a significant impact on parking demand for many land uses. The largest impacts of ride-hailing services to parking are occurring at hotels, restaurants, events centers, and airports where the demand for ride-hailing is the greatest.

Studies have particularly shown that hotel parking demand seems to have decreased in many places due to ride-hailing; travelers are choosing to use ride-hailing, instead of rental cars, to get to and from the hotel.

Exhibit 1 illustrates the progressive use of ride-hailing services between 2014 and 2017 as compared to car rentals and taxis. This figure was referenced from the "Ride-Hailing Impacts on Parking" – An overview created by Walker Consultants[6] study conducted in 2017. The results illustrated in the study were based on actual expense reports by Certify[7]. Results of the study's analysis indicated that use of ride-hailing services have increased to approximately 62% in 2017 as compared to 8% in 2014. The use of car rentals decreased from approximately 54% in 2014 to 29% in 2017.

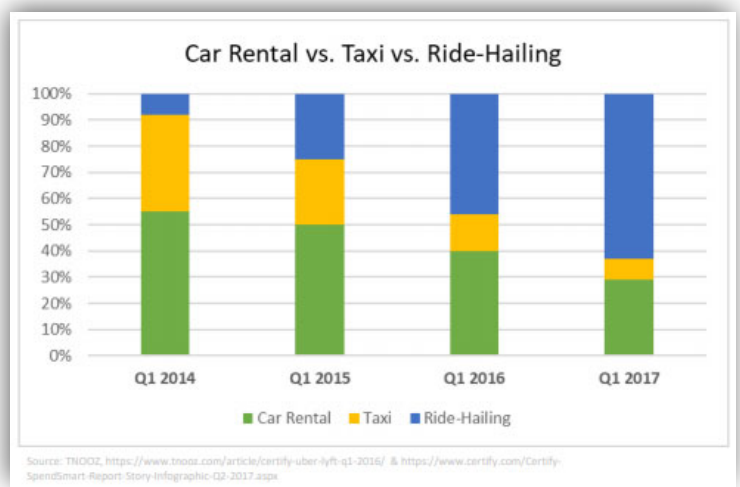

Exhibit 1: Mode Share of Ground Transportation @ Airports

Due to the significant increase of TNC usage, many hotels are experiencing a measurable drop in parking demand. New hotel developments across the country are trying to "right-size" the amount of parking spaces. For the city, this would mean less pavement and more sustainable development. The above referenced study is provided in **Appendix B**.

Transit Use

The location of the project site provides opportunities for daytime employees to take transit, bike or walk to work. It is anticipated that some of the hotel workers might be able to use transit instead of driving to work. This would also reduce parking demand.

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[6] Ride-Hailing Impacts on Parking, an overview created by Walker Consultants

[7] *Ride-Hailing Report Q2 2017 – On the Road: How Business Travelers Get from A to B, by Certify Inc.*

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Shared Parking Concept and Analysis

Typically, shared parking is possible for project sites that serve two or more land uses without conflict or encroachment. Parking spaces can be shared if there are variations in the accumulation of vehicles by hour, day or season at the individual land uses and if the parking demand of land uses results in same auto-trips. Like other urban travel characteristics, parking demands fluctuates during peak and off-peak schedules depending on types of land use and the project area. It has been shown conclusively that distinct but complementary patterns, such as "office parking" that is generally empty in the evenings and on weekends and "hotel parking" that is generally fuller in the evenings, offer an opportunity for cities to better satisfy residents and commuters without increasing supply. Shared parking is a land use/development strategy that optimizes parking capacity by allowing complementary land uses to share spaces, rather than constructing separate parking spaces for separate uses.

The proposed project site is located adjacent to several large offices. This would naturally provide potential opportunity for shared parking due to inherent land use characteristics of hotel and office which has peak parking demand that fluctuates and varies at various times of day.

Time of Day information are provided in the ITE 5th Edition Parking report and is shown in **Table 4.** As shown below, office use parking peaks starting around 10 AM while hotel parking would be less than 50% during that time period.

Table 4: ITE Time of Day Parking Estimate for Hotel and Office

Percent of Weekday Peak Parking Demand		
Hour Beginning	**Hotel**	**General Urban/ Suburban Office**
12:00 - 4:00 a.m.	100	0
5:00 a.m.	0	0
6:00 a.m.	0	0
7:00 a.m.	89	13
8:00 a.m.	64	48
9:00 a.m.	56	88
10:00 a.m.	49	100
11:00 a.m.	45	100
12:00 p.m.	45	85
1:00 p.m.	41	84
2:00 p.m.	39	93
3:00 p.m.	39	94
4:00 p.m.	44	85
5:00 p.m.	48	56
6:00 p.m.	51	20
7:00 p.m.	54	11
8:00 p.m.	62	0
9:00 p.m.	72	0
10:00 p.m.	86	0
11:00 p.m.	93	0

Source
ITE Parking 5th Edition

There are approximately 160 parking spaces serving the Thermo Fisher Scientific office site adjacent to the proposed hotel. In essence, hotel guests might be able to use vacant parking spaces during the night in the uncommon event of parking overflow and still be out of the parking spaces before the peak office parking demand. AMG does not recommend that the proposed

rely on the office parking but just wanted to point out that in the unlikely event of parking demand exceeding available parking these spaces might be available.

The percent of weekday peak parking demand of hotel verses office use is also depicted in **Exhibit 2.**

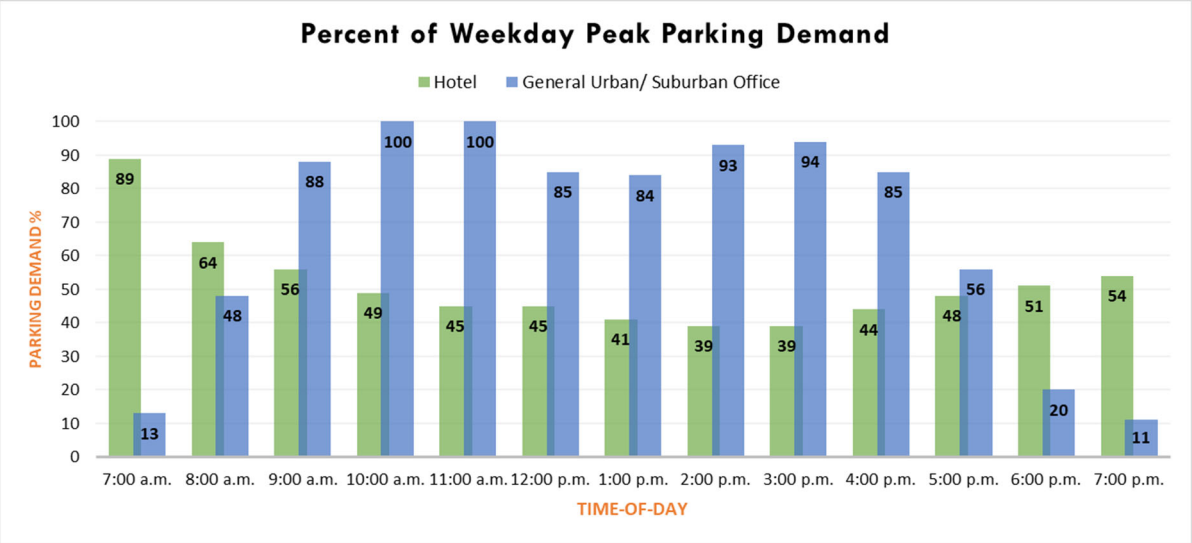


Exhibit 2: Time of Day (Percent) Peak Parking Demand of Hotel vs. Office Use

Conclusion

The conclusions derived from AMG's parking demand analysis conducted for this project are summarized below:

- Both ITE parking demand rates and actual parking demand observations at nearby hotels suggest that the City of Sunnyvale zoning ordinance overestimates parking requirements for developments like the proposed Hampton Hotel project.
  Results of the Transportation Network Company (TNC) study indicated that use of ride-hailing services has increased to approximately 62% in 2017 as compared to 8% in 2014. The use of car rentals decreased from approximately 54% in 2014 to 29% in 2017. Due to the significant increase of TNC usage, many hotels are experiencing a measurable drop in parking demand.
- Based on the Local Hotel Parking Occupancy Survey, the average Saturday parking occupancy rate per occupied room of 0.47 the proposed Hampton Hotel would require 71 parking spaces and average Saturday parking occupancy rate per room of 0.70 the proposed hotel requires 106 parking spaces (which assumed 100 percent occupancy); the project proposes to provide 93 parking spaces. This corresponds to an occupancy of 91 percent, well above the industry peak average of about 72 percent occupancy on Saturday (source: ITE Parking Generation).

- Based on the Local Hotel Parking Occupancy Survey, the average weekday parking occupancy rate per occupied room of 0.61 the proposed hotel would require 93 parking spaces at 100 percent occupancy; the project proposes to provide 93 spaces.
- More current 2019 ITE Limited-Service Hotels Study showed the 50th percentile to be 0.39 parked cars per hotel guest room which would mean only 59 parking spaces would be needed. The 85th percentile is 0.58 parked cars per hotel guest room indicating the number of parking spaces required would be 88 parking spaces. The project proposes to provide 93 spaces.
- The hotel should establish a process to accommodate on-call 24- hour valet parking.
- The hotel should provide on-demand shuttle service such as ShuttleQ App.

Appendix A – Sunnyvale Ordinance, ITE Hotel

(b) Shared Parking. Shared parking may be allowed for differing uses and is encouraged for trip reduction programs such as car sharing and other transportation demand management programs. Parking analysis will be evaluated with the application submittals for the special development permit, and a shared parking agreement or a parking management plan may be required.

(c) For Projects Within the Parking District. All non-residential development projects within the boundaries of a parking district (created by the action of the city council) shall prepare a parking analysis to determine how the required parking will be provided. The analysis shall include parking provided by the parking district, parking provided onsite, and parking provided in other locations. Residential uses shall provide assigned parking for residents onsite.

(d) Special Provisions for the Downtown Specific Plan. The following criteria shall apply within the boundary of the DSP.

(1) Tandem Parking. Tandem parking may be provided for a multiple-family residential use up to one hundred percent of the units. Each set of tandem spaces must be assigned to the same unit. Required unassigned spaces shall not be provided as tandem parking.

(2) Minimum Unassigned Parking for Multiple-family Uses. When two assigned spaces are provided for

a multiple-family residential unit (including tandem parking) the number of unassigned spaces may be reduced by twenty-five percent for each unit with more than one assigned space.

(3) Senior and Affordable Housing. The provisions of Section 19.46.080 shall apply within the boundary of the DSP.

(e) Loading Spaces. Loading spaces shall conform with the provisions of Chapter 19.46.

(f) Bicycle Parking Standards. Bicycle parking requirements shall comply with the Santa Clara Valley Transportation Authority (VTA) Guidelines. Reductions or deviations from these requirements may be determined as part of the project review on a case-by-case basis in accordance with the DSP and implementing regulations. Except that the minimum number of Class II bike spaces in any location should be two (four-bicycle capacity).

Table 19.28.100(a)
Vehicular Parking Standards

Land Use	Minimum Number of Parking Spaces Required	Other Provisions
Single-Family Residential	1 assigned and covered per unit + 1 uncovered per unit	None
Multiple-Family Residential Studio or 1 Bedroom	1 assigned and covered per unit +0.5 unassigned per unit	Assigned spaces may not be compact. Up to ten percent of the total number of unassigned parking spaces may be compact in parking lots of ten or more spaces.
Multiple-Family Residential 2- Bedroom	1 assigned and covered per unit +0.7 unassigned per unit	
Multiple-Family Residential 3- Bedroom and larger	1 assigned and covered per unit + 1 unassigned per unit	
Office	2 per 1,000 sq. ft.	Maximum 4 per 1,000 sq. ft.
Retail (freestanding)	4 per 1,000 sq. ft.	Maximum 5 per 1,000 sq. ft.
Retail (mixed use)	2 per 1,000 sq. ft.	
Medical Clinic	3.3 per 1,000 sq. ft.	
Restaurant without Bar (freestanding)	9 per 1,000 sq. ft.	
Bar or Restaurant with Full Bar (freestanding)	13 per 1,000 sq. ft.	
Assembly/Theater	1 per 3 seats	
Hotel	0.8 spaces per hotel room	Parking management plan required
Any Use within the Parking District	Parking requirements consistent with Section 19.28.100 (c)	

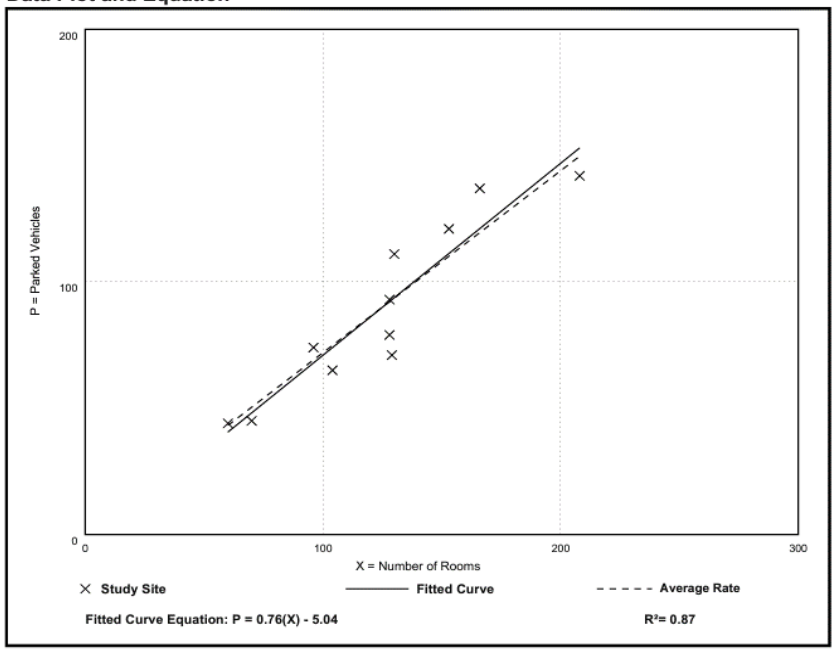
Business Hotel
(312)

Peak Period Parking Demand vs: Rooms
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Peak Period of Parking Demand: 10:00 p.m. - 7:00 a.m.
Number of Studies: 11
Avg. Num. of Rooms: 125

Peak Period Parking Demand per Room

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.72	0.55 - 0.85	0.64 / 0.83	***	0.10 (14%)

Data Plot and Equation



Business Hotel
(312)

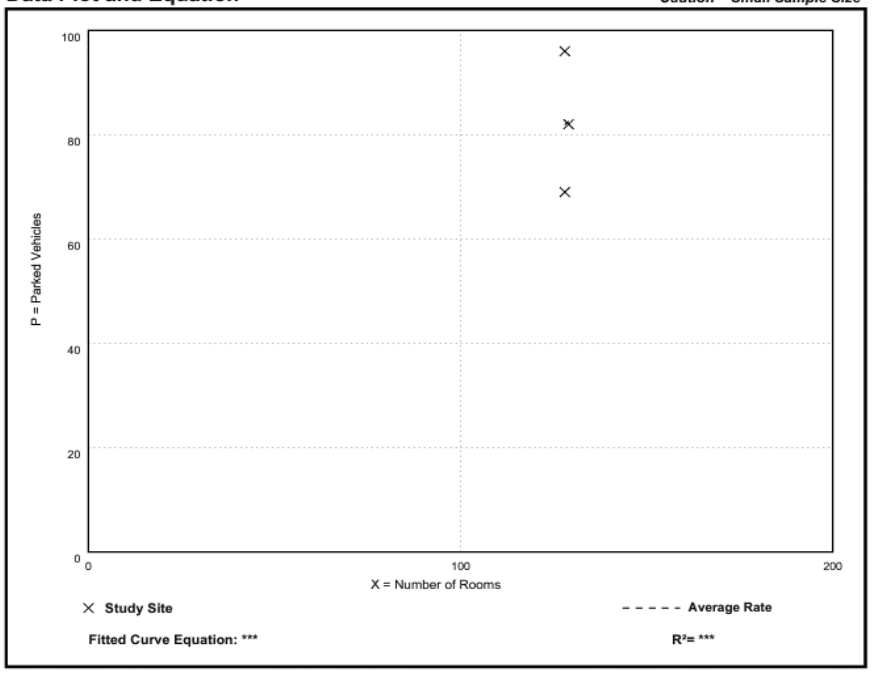
Peak Period Parking Demand vs: Rooms
On a: Saturday
Setting/Location: General Urban/Suburban
Peak Period of Parking Demand: 10:00 p.m. - 8:00 a.m.
Number of Studies: 3
Avg. Num. of Rooms: 128

Peak Period Parking Demand per Room

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.64	0.54 - 0.75	0.57 / 0.75	***	0.11 (17%)

Data Plot and Equation

Caution – Small Sample Size



Appendix B – TNC, ITE Ltd Serv Hotel, Local Parking Occupancy Survey

Sunnyvale and nearby cities hotel peak periods Parking Occupancy Survey - (Tuesday - 05/15/18) weekday and one (Saturday - 05/12/18) weekend

Table 1 – Parking Observations for Saturday (05/12/2018)

#	Name	Rooms	Saturday (05/12/2018)				
			Rooms Occupied	Percent Occupied	Parking Occupancy Stalls	Parking Occupancy Rate per Room	Parking Occupancy Rate per Occupied Room
1	Homewood Suites by Hilton San Jose North 4315 N. First Street, San Jose, CA, 95134	145	102	70%	70	0.69	0.48
2	Extended Stay America Hotel San Jose – Sunnyvale 1255 Orleans Drive, Sunnyvale, CA 94089.	145	65	45%	41	0.63	0.28
3	Staybridge Suites Sunnyvale 900 Hamlin Ct, Sunnyvale, CA 94089.	138	117	85%	90	0.77	0.65

Table 2 – Parking Observations for Tuesday (05/15/2018)

S.No	Name	Rooms	Tuesday (05/15/2018)				
			Rooms Occupied	Percent Occupied	Parking Occupancy Stalls	Parking Occupancy Rate per Room	Parking Occupancy Rate per Occupied Room
1	Homewood Suites by Hilton San Jose North 4315 N. First Street, San Jose, CA, 95134	145	145	100%	95	0.66	0.66
2	Extended Stay America Hotel San Jose – Sunnyvale 1255 Orleans Drive, Sunnyvale, CA 94089.	145	145	100%	81	0.56	0.56
3	Staybridge Suites Sunnyvale 900 Hamlin Ct, Sunnyvale, CA 94089.	138	138	100%	85	0.62	0.62
Average						**0.61**	**0.61**

Parking Requirements for Limited-Service Hotels

By John W. Dorsett, AICP

Shutterstock/ Tharnapoom Voranavin

An empirical study of five limited-service hotels ("hotels") located in South Florida, USA was performed to measure actual parking demand. This study is based on 35 total field-data-collection observations, seven different observations for each hotel, one for each day of the week, all performed at or near the 1 a.m. peak hour of occupancy for hotel guest rooms (all times are Eastern Standard Time). Following is a summary of key findings and conclusions:

- Based on **Total** Number of Hotel Guest Rooms **(Occupied Rooms Plus Vacant Rooms)**:
  - The 35 field data observations range from a low of 0.05 to a high of 0.76 parked cars per hotel guest room.
  - The 50th percentile (median) and mean observations are 0.39 and 0.38 parked cars per hotel guest room, respectively.
  - The 85th percentile observation, the industry standard for informing parking supply recommendations for hotels, is 0.58 parked cars per guest room. The 95th percentile observation, which exceeds the industry standard for hotel parking supply recommendations, is 0.67 parked cars per guest room.
- The hotel room occupancies averaged 84 percent for 27 studies (5 hotels x 7 days, less 8 occupancies that hotel operators were unwilling to provide), exceeding the U.S. national average of 66.2 percent occupancy.[1]
- Based on Number of **Occupied** Hotel Guest Rooms:
  - The 27 field data observations range from a low of 0.09 to a high of 1.05 parked cars per occupied hotel guest room.
  - The 50th percentile (median) and mean observations are 0.45 and 0.51 parked cars per occupied hotel guest room, respectively.
  - The 85th percentile observation, the industry standard for informing parking supply recommendations for hotels, is 0.70 parked cars per occupied hotel guest room. The 95th percentile observation, which exceeds the industry standard for hotel parking supply recommendations, is 0.88 parked cars per occupied hotel guest room.
- Many communities require one parking space for every built hotel guest room. This study demonstrates that for some locations, this standard could be excessive. Therefore, communities are encouraged to consider relaxing the standard, to acknowledge that ride-hailing companies, such as Uber and Lyft, have decreased hotel parking demand.

Study Purpose

Hotel development continues in response to our increasingly mobile society and the need for temporary lodging associated with business and pleasure travel. One challenge for planners is to properly determine limited-service hotel parking needs in the absence of significant data and to consider the impacts of ride-app services such as Uber and Lyft. In response to this challenge, Walker Consultants (Walker) conducted a study documenting the parking requirements of limited-service hotels in a specific geographic market. A major component of this study includes new primary research.

This study is important to planners and developers of limited-service hotels because prior to this study, there was limited published data regarding parking requirements for this land use type. Many area and U.S. municipalities commonly require one parking space for each hotel guest room per their local zoning ordinance—in many cases, this requirement is excessive.

The following are the objectives of this research project:

- To identify and reference industry standards for limited-service hotel parking requirements;
- To create a database of limited-service hotel peak hour parking generation ratios that is based on the number of parking spaces needed per hotel guest room, the variable most commonly referenced by municipal codes; and
- To summarize findings by mean, median, and 85th percentile values.

Meeting these objectives provides information useful to planners in right-sizing limited-service hotel parking capacity.

TNC Impacts on Hotel Parking Demand

Transportation network companies (TNCs), sometimes referred to as ride-apps or ride-hailing companies like Uber and Lyft, have and are continuing to change peoples' transportation habits and are materially reducing parking demand for some land uses including hotels, restaurants, event centers, and airports.

For business travelers, including those requiring hotel guest rooms, depending on location, TNCs are becoming or have become a preferred ground transportation option in lieu of taxis and rental cars, thus reducing hotel parking demand. As a consequence of TNCs, car rental companies such as Hertz and Avis have experienced a reduction in their revenues over the last several years.[2]

Travel and expense management service provider Certify found that of the three ground transportation segments for business expense reimbursement—ride-hailing, rental cars, and taxis—the share of Uber and Lyft combined, reached 71 percent of the ground transportation share in Q1 2018.[3]

Professional experience, which includes multiple conversations with hotel parking operators and published reports, confirms that hotel parking demand has decreased as a result of increased usage of TNCs.[4]

Types of Hotels

There are reportedly 55,900+ hotel properties in the United States, representing more than 5.3 million hotel guest rooms.[5] Not all hotels are created equal. There are many different kinds and types of hotels, and the term "hotel" really does not accurately depict the scope, breadth, or depth of activities that take place. The following is an attempt at classifying various types of hotels:[6]

- Size (number of rooms) – under 50, 50 up to 150, 150 to 299, 300 to 600, and more than 600 rooms;
- Location – airport, casino, city center, suburban, and resort;
- Level of service – economy/limited, mid-level, and luxury service;
- Market and function – airport, all-inclusive, bed and breakfast, business, boutique, casino, conference center, convention center, extended-stay, leisure, resort, suite, and timeshare and condominium;
- Ownership and affiliation – chain with a brand affiliation and independent;
- Amenities – accessibility, airport, beach, casino, city center, childcare, fitness club, golf, pool, ski, spa, tennis, and weddings;
- Industry standards – AAA Diamond Rating, Trip Advisor Traveler's Choice, etc.; and
- Brand standards – Aloft, Element, Four Points by Sheraton, Le Meridien, Sheraton, St. Regis.

Methodology

This study focuses on limited-service hotels ranging in size from 151 to 233 hotel guest rooms in a suburban location in northern Miami-Dade and southern Broward Counties, Florida, about 13 miles (21 kilometers [km]) south of the Fort Lauderdale-Hollywood International Airport and 19 miles (30.5 km) northeast of Miami International Airport. Additionally, the closest Tri-Rail Station is the Golden Glades Station (5.6 miles [9 km] or 12 minutes). Properties were studied in this geographic area and hotel type in response to a developer's proposal to build a similar property in this area.

To complete our primary research, we performed the following steps:

- Researched and summarized industry-standard base ratios for hotel parking generation
- Researched the following variables for each hotel:
  - Freestanding location dedicated exclusively to hotel use and very unlikely to experience parking-related encroachments from adjacent land uses and very unlikely that a portion of the hotel's parking needs were being met off site
  - City, state, and zip code
  - Number of hotel guest rooms
  - Parking space supply
- Counted the number of parked vehicles during the typical peak time of a weekday
- Determined the number of vehicles counted at typical peak hour of parking occupancy
- Summarized, by occupied spaces per hotel guest room, the mean, median, and 85th percentile
- Developed recommendation regarding the number of spaces to be provided by limited-service hotels for the subject location

Internet searches were conducted to identify freestanding limited-service hotels for study. For purposes of this study, a limited-service hotel is one that is likely a two- or three-star hotel offering very little in the way of personal services. For example, there would be no doorman, bellhops, or concierge; typically, as staffing is limited. The limited-service hotels studied have little to no meeting room space or sit-down, full-service restaurants that would attract outside diners, and these are not located on golf courses or the beach. Food service provided by the limited-service hotels is limited to a small food pantry that offers items for sale on a retail basis, complimentary breakfast for hotel guests, and perhaps a limited-menu, order-at-the-counter restaurant.

Note that the fifth edition of ITE's *Parking Generation Manual* includes Hotel Land Use Category (LUC) 310 and Business Hotel LUC 312. The properties surveyed for this study do not fall within LUC 310 because of the limited service nature of the properties; no significant convention center or meeting space is included at the properties surveyed for this study, nor is there a full-service, sit-down restaurant. Additionally, unlike the surveyed hotels, LUC 312 Business Hotels includes some hotels with full-service, sit-down restaurants. Therefore, ITE may want to consider creating a new category of lodging for a limited-service hotel that provide very little to no meeting room space or sit-down, full-service restaurants;

without these amenities, a hotel property typically generates parking demand that is limited to hotel guest room occupants and a few hotel employees, and excludes parking demand associated with those accessing meeting rooms and restaurant space without lodging at the hotel.

Secondary Research

The following is a summary of several published sources that were reviewed for purposes of documenting hotel parking requirements within the parking consulting and transportation planning professions:

- The third edition of *Shared Parking*, a joint publication of the International Council of Shopping Centers, the National Parking Association, and the Urban Land Institute, presents a base parking generation rate of 1.15 parking spaces per hotel guest room and this ratio is separated into two components, 1.0 spaces per hotel guest room for guest parking and 0.15 spaces per hotel guest room for hotel employee parking. These base ratios apply to the hotel guest room component for all hotel types including business, leisure, and convention center hotels, irrespective of location. These base rates are then adjusted downward to account for month of year, time of day, non-captive, and driving ratio adjustments.
- The fifth edition of the ITE *Parking Generation Manual* documents the following parking generation rates for hotels and business hotels:

Hotel Type		Hotel	Business Hotel
ITE Land Use Code		310	312
Peak Period (EST)		11 p.m. – 8 a.m.	10 p.m. – 7 a.m.
No. of Studies		22	11
Avg. No. of Rooms		321	125
No. of Parked Cars/Guest Room	Average Rate	0.74	0.72
	Range	0.43-1.47	0.55-0.85
	85th Percentile	0.99	0.83

These industry standards can be assumed to inform the one space per hotel guest room parking requirement that is so common with many municipal zoning ordinances.

Field Data Collection Results

To present an empirical case for an opportunity of less than one parking space per hotel guest room, parking-space occupancy data was collected at five existing limited-service hotel properties in Aventura (four hotels) and Hallandale Beach (one hotel) to ascertain parking occupancies and parking demand ratios. Properties were selected based on the experience of the consulting team with an aim to select properties that did not share parking with adjacent land uses and vice versa; the intent is to collect "clean" data that is exclusive to the hotels studied and unencumbered by unrelated properties.

Walker recorded parking space inventory and occupancies, as well as total room counts and room occupancies for multiple survey days, specifically targeting overnight parking-space occupancy rates during each night of the week. As a result, Walker performed 35 total observations over the seven survey days, which were as follows:

- September 21, 2019 (Friday night);
- December 29, 2019 (Saturday night);
- December 30, 2019 (Sunday night);
- February 4, 2020 (Monday night);
- February 5, 2020 (Tuesday night);
- February 6, 2020 (Wednesday night); and
- February 7, 2020 (Thursday night).

Vehicles were surveyed across the overnight hours (between 12:45 a.m. to 2:15 a.m.) to ensure that cars counted were hotel-use only and not impacted by other land uses, and to also reflect a typical peak-hour parking occupancy rate for hotel guest rooms. Room occupancies (%) were sought by phone and in-person site visits. The hotel-guest-room occupancy data is provided as supplemental data and does not influence the observed demand ratios.

The data collected is plotted in Figure 1. The X-axis represents the seven days of the week, one representing each day of the data collection dates. The Y-axis is the number of parked cars observed around the 1 a.m. hour per hotel guest room, for each of the five hotels.

A shown in Figure 1, the data points range from a low of 0.05 to a high of 0.76 parked cars per hotel guest room. As can be seen, 25 of the 35 observations, or 71 percent, fall within the 0.20 to 0.50 band. Six data points are between 0.60 to 0.80 parked cars per hotel guest room and four data points are below 0.20 parked cars per hotel guest room.

The 50th percentile (median) observation is 0.39 parked cars per hotel guest room. The 85th percentile observation, the industry standard for informing parking supply recommendations, is 0.58 parked cars per hotel guest room. The 95th percentile observation, which exceeds the industry standard for parking supply recommendations, is 0.67 parked cars per hotel guest room.

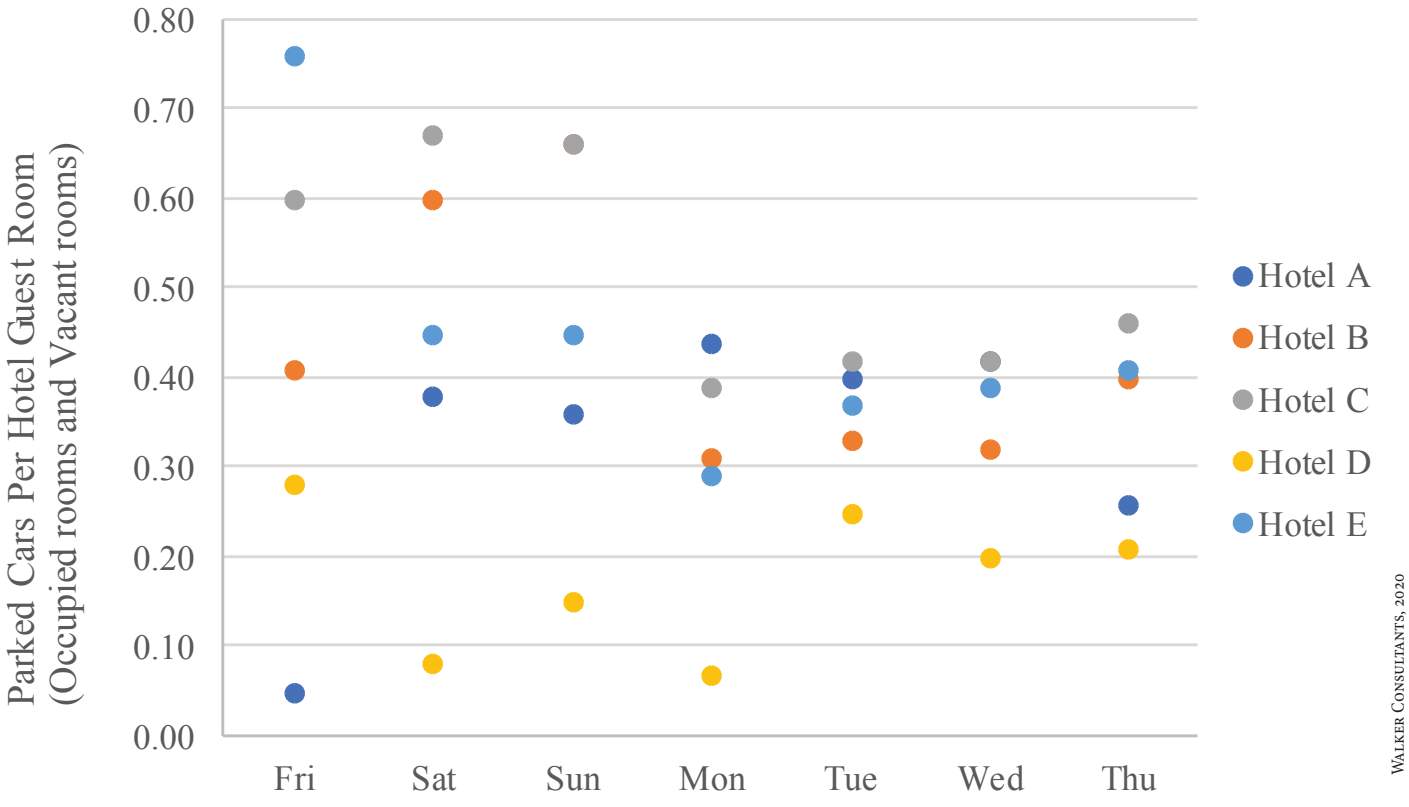


Figure 1. Observed Number of Parked Cars per Hotel Guest Room.

Appendix – Field Data Collection

		Hotel Property ID	Total Spaces	Occupied Spaces	Parking Occupancy %	Total Rooms	Room Occupancy %	Generation Rate
Table 1	Overnight Hotel Parking Occupancy Survey – ±1 a.m. on September 21, 2019 (Friday night)	Hotel A	163	8	5%	162	20%	0.05
		Hotel B	141	79	56%	191	48%	0.41
		Hotel C	129	90	70%	151	67%	0.60
		Hotel D	84	57	68%	207	68%	0.28
		Hotel E	220	176	80%	233	72%	0.76
Table 2	Overnight Hotel Parking Occupancy Survey – ±1 a.m. on December 29, 2019 (Saturday night)	Hotel A	163	61	37%	162	100%	0.38
		Hotel B	173	115	66%	191	95%	0.60
		Hotel C	129	101	78%	151	95%	0.67
		Hotel D	84	17	20%	207	96%	0.08
		Hotel E	220	106	48%	233	100%	0.45
Table 3	Overnight Hotel Parking Occupancy Survey – ±1 a.m. on December 30, 2019 (Sunday night)	Hotel A	163	59	36%	162	100%	0.36
		Hotel B	173	127	73%	191	95%	0.66
		Hotel C	129	100	78%	151	100%	0.66
		Hotel D	84	32	38%	207	98%	0.15
		Hotel E	220	104	47%	233	100%	0.45
Table 4	Overnight Hotel Parking Occupancy Survey – ±1 a.m. on February 4, 2019 (Monday night)	Hotel A	163	72	44%	162	83%	0.44
		Hotel B	141	60	43%	191	93%	0.31
		Hotel C	129	59	46%	151	100%	0.39
		Hotel D	84	15	18%	207	-	0.07
		Hotel E	220	68	31%	233	-	0.29
Table 5	Overnight Hotel Parking Occupancy Survey – ±1 a.m. on February 5, 2019 (Tuesday night)	Hotel A	163	64	39%	162	77%	0.40
		Hotel B	173	63	36%	191	77%	0.33
		Hotel C	129	63	49%	151	100%	0.42
		Hotel D	84	51	61%	207	-	0.25
		Hotel E	220	87	40%	233	-	0.37
Table 6	Overnight Hotel Parking Occupancy Survey – ±1 a.m. on February 6, 2019 (Wednesday night)	Hotel A	163	68	42%	162	65%	0.42
		Hotel B	173	62	36%	191	68%	0.32
		Hotel C	129	64	50%	151	100%	0.42
		Hotel D	84	41	49%	207	-	0.20
		Hotel E	220	91	41%	233	-	0.39
Table 7	Overnight Hotel Parking Occupancy Survey – ±1 a.m. on February 7, 2019 (Thursday night)	Hotel A	163	42	26%	162	61%	0.26
		Hotel B	173	77	45%	191	73%	0.40
		Hotel C	129	69	53%	151	87%	0.46
		Hotel D	84	44	52%	207	-	0.21
		Hotel E	220	96	44%	233	-	0.41

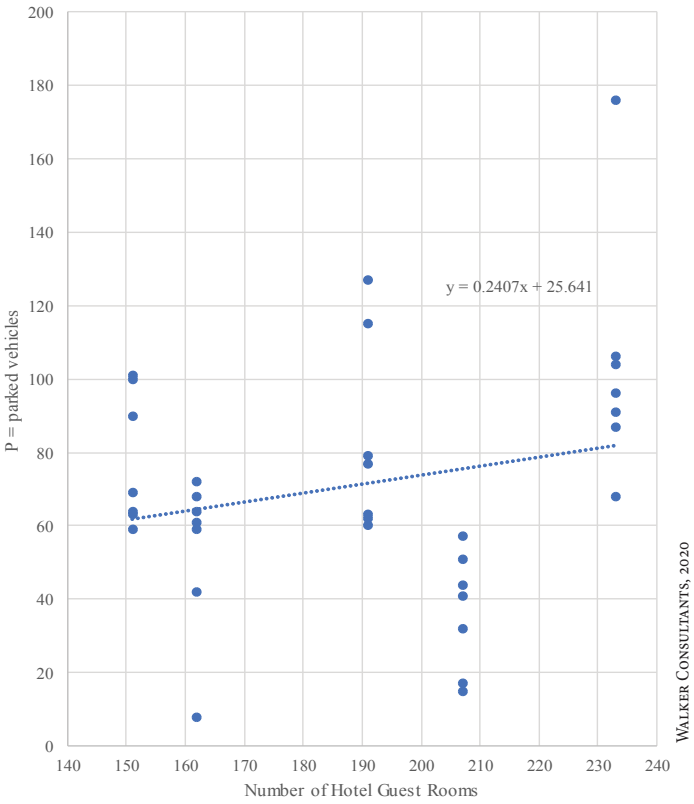
Source: Walker Consultants, 2019-2020

The hotel room occupancies averaged 84 percent for 27 studies (5 hotels x 7 days, less 8 occupancies that hotel operators were unwilling to provide), exceeding the U.S. national average of 66.2 percent occupancy.[1]

Based on number of **occupied** hotel guest rooms, the 27 field data observations range from a low of 0.09 to a high of 1.05 parked cars per occupied hotel guest room. The 50th percentile (median) and mean observations are 0.45 and 0.51 parked cars per occupied hotel guest room, respectively. The 85th and 95th percentile observations are 0.70 and 0.88 parked cars per occupied guest room, respectively.

Data Limitations

This analysis is applicable for limited-service hotels in suburban locations. Ancillary hotel uses including conference and meeting room space, restaurants, spas, casinos, golf courses, etc. would be additive to the base ratios studied herein.



Peak hour parking spaces occupied per hotel guest room between 1 a.m. and 3 a.m. EST

Parking Generation Rates

Average Rate	Range of Rates	Standard Deviation	Number of Studies	Avg. Number of Guest Rooms
0.38	0.05 – 0.76	0.17	35	189

Figure 2. Data Plot and Statistical Summary.

The author has experience with hotel parking generation rates for other types of hotels located in city centers and other places including beachfront properties. Some city center properties have reportedly seen their parking demand drop to levels of 0.20 spaces per hotel guest room or lower.

Conclusions

Based upon the information gathered and the available data analyzed, the parking supply ratio for the limited-service hotel guest room component can potentially be reduced from the required one space per room to 0.58 spaces per room. Note that this is applicable for a suburban location and that the increased reliance on ride-apps such as Uber and Lyft have decreased on-site demand for parking spaces. Other studies are encouraged and documented to build on this research and to inform a more fully-developed view of this topic. **itej**

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For the last three decades, **John Dorsett, AICP,** *senior vice president and managing director of Walker Consultants' parking and mobility planning, operations, and technology practice, has successfully delivered or led the delivery of thousands of consulting engagements for architects, airports, hospitals, municipalities, real estate developers and universities located in all 50 U.S. states and several foreign countries. Consulting engagements have helped improve quality of life and users' experiences, minimized project waste, and saved developers millions of dollars through right-sizing parking capacity, and supported the financing of billions of dollars in real estate development projects.*

Ride-Hailing Report Q2 2017

On the Road:
How Business Travelers Get from A to B

Midway through 2017 and ride-hailing's growth among business travelers shows little signs of slowing. Share of receipts and expenses for taxi and car rental dropped over the second quarter, while category leaders Uber and Lyft saw matching increases, and increased head-to-head competition.

NATIONAL GROUND TRANSPORTATION

Uber grew and car rental dropped, while taxi slowed down enough in the quarter to let Lyft catch up

	Q1	Q2
Uber	53%	55%
Car Rental	31%	29%
Lyft	6%	8%
Taxi	10%	8%

2017

+2% CATEGORY GROWTH FOR UBER AND LYFT

Taxi in single-digit territory for the first time on record

Taxi gave up nearly 3% to Lyft in the quarter

UBER V. TAXI V. LYFT

A look at share of rides with car rental removed from the data

77% 12% 11%

TAXI V. RIDE-HAILING IN MAJOR METROS

Uber lost ground in all but Chicago, while taxi gained only a small share in Miami and Atlanta; Lyft picked up between 2-5% in most cities across the country

- Taxi
- Uber
- Lyft

	Taxi	Uber	Lyft
Boston	19% ▾ 18%	73% ▾ 70%	8% ▲ 12%
New York	35% ▾ 33%	59% ▾ 58%	6% ▲ 9%
Miami	18% ▲ 20%	75% ▾ 73%	7% = 7%
Atlanta	15% ▲ 17%	78% ▲ 72%	7% ▲ 11%
Chicago	35% ▾ 32%	56% ▲ 57%	9% ▲ 11%
Dallas	14% ▾ 12%	79% ▾ 78%	7% ▲ 10%
San Francisco	4% ▾ 3%	88% ▾ 85%	8% ▲ 12%
Los Angeles	17% ▾ 13%	69% ▾ 68%	14% ▲ 19%

THE GOOD, THE BAD, THE FUNNY

With competition shaping up between Uber and Lyft, here's what business travelers are saying about each—the good, the bad and the funny

★★★★★ First Uber experience, extremely positive!

★★★☆☆ Houston Uber was unreliable when I needed it to be on time.

★★★★★ It was Uber fantastic.

UBER

lyft

★★★★★ LOVE lyft.

★★★☆☆ Next time taxi, driver took someone else!

★★★★☆ Did not ask me for directions to the airport. I like that.

AVERAGE COSTS AND RATINGS

Average cost per ride continues to decline across the category, and despite what recent headline would indicate users love Uber most

Uber	$24.49	4.46
Lyft	$21.28	4.22
Taxi	$31.06	3.83

certify
travel & expense made easy

About the data: This analysis provides sharing economy spend trends of business travelers in North America with all data compiled from actual expense data from submitted expense reports.

For all media inquires please contact Kevin Wolf of TGPR, kevin@tgprllc.com or (650) 327-1641. For more information, visit www.certify.com.

Hotel News Now

Opinions

What the rise of Uber means for hotel parking lots

25 JANUARY 2017 1:13 PM

What could Uber's potential impact on transportation mean for hotel guests' need for their cars? The hotel parking lot might be living on borrowed time.

By George Jordan
george.jordan@ohrllc.com

Recently, I was bemoaning to a colleague about how I often struggle to find a relevant topic to write about for this column. Angie said, "You should write about Uber." And I thought to myself, well you are "uber-duber-whack-a-doodle-doosky. … What does that have to do with hotels?" It turns out, quite a bit, and Angela is one smart lady.

Uber and other ride-sharing services—and the rise of social media applied to a smartphone—translates into a highly diminished desire for Generation Z citizens (and others) to own and drive a car. Indeed, lots of chatter online recently makes a very valid case that for the most part, private auto ownership is one of the worst capital investments anyone could make.

The very expensive car sits mostly un-utilized most hours of the day. It's parked in a garage overnight, is driven to/from work, or potentially shopping, and these activities may chew up a few hours a day of actual drive time. Otherwise, it sits idle. Factor in the recurring costs of ownership, and Gen Z has figured out it's cheaper and less stressful to "Uber it" to the next location.

With the added benefit of being able to "text and ride" and communicate via social media as a passenger, why drive when you can ride? Car ownership, and parking utilization, may have peaked in urban communities.

Ride-sharing works well in dense major metropolitan areas but not quite so well in ex-urban locations, where distances and wait times compel some form of car ownership. Finally, the cost of renting a car and parking (whether valet or self-park) often exceeds the cost of overnight hotel accommodations in larger cities—e.g. $70 per night in Chicago.

The end result of these burgeoning trends is a precipitous drop in parking demand. New hotels are reducing the amount of parking stalls or eliminating parking altogether. In some major urban markets, residential parking ratios are extremely low, and cities are requiring fewer parking spots in order to encourage greater use of public transportation.

Autonomous vehicles make headlines on a daily basis. Every car manufacturer is in deep research and development and is looking forward to the day when vehicles are effectively robotic transports controlled by computers. Watch out Uber drivers: Uber will remain, but soon enough, the human driver won't.

The day is coming when citizenry doesn't drive, they ride. They do not park, they exit. Traffic jams and gridlock will be stricken from the urban dictionary. Vehicles will be computerized and unattended means of conveyance that are nearly fully utilized capital investments. Parking may become an afterthought, and its revenue streams like the telephone department deleted. You remember landlines, right?

All of this buildup is to point out a major trend at urban hotels: parking is on the decline, no qualifiers. For hotel owners and managers, this means "right-sizing" parking garages, moving to valet operations, and otherwise creating value for those that still do park. (Squeegee the windshield clean upon departure, perhaps?) It means less land requirements for new builds, and greater return on investment when sized right.

But none of this happens overnight or even in the next five years. So in the short term, what are you doing to maximize convenience and parking revenues to enhance the guest experience? Cleaning the windshield, offering a bottle of water on a hot summer day, combining door/bell services with valet are a means to improve the guest experience and the bottom line.

Short term, we find a new form of gridlock in the urban core, "Uberlock." The ride-share drivers have activated their idle capital (cars) and are circling the city blocks like vultures in the desert, waiting for something to die. And it will; it's called parking.

George Jordan is senior vice president – operations for Oxford Hotels & Resorts, overseeing a cluster of three-, four-, and 4 ½ -star hotels, both operating and under development. Mr. Jordan has worked in hotels for over 30 years including the Arizona Biltmore, The St. Paul, The Marquette, The Drake, Raffaello Hotel, Hotel Felix, and most recently The Godfrey Hotel Chicago. New openings currently orchestrated by Mr. Jordan include the Godfrey Hotel Boston, and LondonHouse Chicago. Mr. Jordan rose through the ranks while attending college at University of Southern California and Arizona State University, where he obtained a B.S. in finance. George has served as area food and beverage director for Hilton International, based out of the Drake Hotel Chicago, and also as hotel

The Uber Effect

The “Uber Effect” refers to the influence of mobility sharing services, such as Uber and Lyft, on traditional transportation generators like commercial establishments, entertainment complexes, airports and hotels.

Ride-hailing, mobility-on-demand, ride-sharing: Whatever you call it, the media have extolled these app-based services as “disrupters” and “category killers.” The taxi and parking industries appear to be the “disrupted” and “killed” in these dire-future forecasts.

Outside this media echo chamber, there is evidence where Uber and Lyft are affecting the parking industry in certain markets. Uber doesn't release financials. Lyft has yet to make a dime. Nonetheless, parking facility owners, managers and other industry experts see ride-hailing companies affecting several specific demand sectors.

Are ride-hailing apps a trend? A spreading contagion dooming parking? Or just a fad, a blip in the nonstop, 100-year growth curve of commercial parking?

Airports Handle Ride Apps Differently

Uber and Lyft entered the Richmond, Va. market in August 2014. Richmond International Airport's (RIC) chief financial officer Doug Blum is closely monitoring the situation, but says, thus far, the “effect” has been minimal.

“Our enplanements have been growing the last four years and our parking income has also grown apace,” he notes. “The ride shares are taking a good bit of business from taxis, but the taxis are surviving. I think an overlooked part of the Uber traffic is from people that would have otherwise asked a friend, relative or co-worker to drive them.”

For airport administrators, an early warning of storms ahead might be diminishing terminal curb space availability.

As fewer vehicles exit airport roadways to park, more will destinate at the airport's front door. Competition for parking at airport curbsides has always been challenging, but now, with ride-hailing vehicles in the mix, congestion has worsened.

BUR Ride-Sharing Drivers Pick Up in Parking Lot

Hollywood Burbank Airport (BUR) has addressed curbside congestion and concern over potential lost parking revenues. The airport requires ride-hailing drivers to pick up their arriving passengers in the short-term parking lot.

This has added an estimated $2,700 per month in parking fees, according to reports in the Los Angeles Times. It's not clear whether these new fees offset parking revenue losses created by the on-demand services spiriting away their customers.

LAX Drivers Pay Airport Access Fees

Also according to the LA Times, Los Angeles International Airport (LAX), has reached an agreement with Uber and Lyft that treats the on-demand services more like taxis, which pay commercial vehicle access fees to the airport.

LAX has created special waiting areas and curbside pick-up zones for the ride hailers. In return, Uber and its peers have each agreed to guarantee LAX a minimum of $25,000 per month in commercial vehicle fees.

To date, these fees have greatly exceeded set minimums, but it's unknown if these gains offset potential parking revenue losses.

End of the Designated Driver?

Worldwide, restaurants, bars and concert venues are attributing a drop in parking demand directly to Uber and its competitors.

In São Paulo, Brazil, city managers blame Uber for a 40 percent decline in the parking tax income flowing from parking demand.

Recent articles from a variety of sources, such as the New York Times, indicate that app-users are partying longer and harder, freed from concerns about parking hassles and driving under the influence.

In Chicago, a Crain's Business Weekly article, “Will Uber and driverless cars turn the parking biz into roadkill?,” identified one garage near the famed Rush Street nightlife zone citing a revenue decline of five percent. (Yes, the garage is still in business.)

NPA stalwarts John Hammerschlag of Hammerschlag Parking and SpotHero's Mark Lawrence were also cited in the Crain's article.

Hammerschlag noted the “Uber Effect” had produced “some impact” in certain locales, but that overall, his year-to-year traffic volumes were up.

Lawrence observed his nighttime customers were still driving, but perhaps more likely to park once, then Uber between hotspots.

Getting a Lyft to the Hotel

The hospitality parking sector has been hammered as guests, especially those from out-of-town who previously might have rented a car, choose to be driven to their hotel destination.

In an article in the Hotel News entitled, “What the Rise of Uber Means for Hotel Parking Lots,” George Jordan, senior vice president for operations at Oxford Hotels & Resorts wrote recently, “[A] major trend at urban hotels: parking is on the decline, no qualifiers. For hotel owners and managers, this means ‘right-sizing’ parking garages, moving to valet operations, and otherwise creating value for those that still do park. . . It means less land requirements for new builds, and greater return on investment when sized right.”

Annapolis-based Towne Park is a parking management leader in the hospitality sector. Chuck Heskett, president of the firm, agrees that on-demand services have reduced hospitality parking needs, but adds a caveat.

“Our hotel business has been negatively impacted. That's the bad news. The good news is the impact has been modest. The most severe loss in vehicle volume counts is occurring on the coasts and in larger event and entertainment hotels.”

Most Commuters Still Prefer to Drive Themselves

Jerry Skillett of New Yorkbased Citizens Parking has been quoted on numerous occasions as not fearing the onset of ride hailing and driverless cars.

In a recent article in the Atlanta Journal & Constitution, Skillett recounted that 90 percent of the vehicles arriving in his premium-rate, Manhattan garages are commuters piloted by a single occupant. Most observers agree that for commuting, Uber is not competitive. . . yet.

To date, ride hailing has not noticeably penetrated the suburban retail sector, known for its ubiquitous parking acreages. However, it has enlivened a few downtown residential and specialty shopping areas.

Condominiums have been listed for sale in San Francisco with no parking, but a year's worth of Uber rides. Leaders of Washington, DC’s 14th Street retail corridor credit Uber with the area's revival. Medical markets have also not been significantly impacted.

Towne Park's Chuck Heskett reports, “Our healthcare business has been immune to the ride hailing apps.”

Apps Growing, But So is Parking

Heskett keeps competitive concerns over the “Uber Effect” in perspective. “We have data that show the percent of annual passenger miles traveled using these apps (Uber, Lyft, etc.) going from 1.9 percent today to 5.3 percent by 2030,” Heskett says.

“Overall, the parking business still grows. In absolute terms, we believe we will still be parking more cars as time goes on. The adoption rate of people that use ride-sharing apps seems to have leveled off at most of our affected locations as well.”

Something's in the air with the “Uber Effect”. But it's too early to tell whether it's burning rubber or simply hot exhaust.

Parking Demand Trends: The Impact of Transportation Network Cos.

Walker Consultants Vice President Mary Smith discusses the impact of TNCs and autonomous vehicles on parking demand and how some sectors are affected by this growing industry.

By **Adina Marcut (/author/adina-marcut/)**

APR 02, 2018

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demand-
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(https://www.cpexecutive.com/wp-content/uploads/2018/04/Mary-Smith-Walker-Consultants.jpg)

Mary Smith

Ride-sharing services such as Uber and Lyft are disrupting the status quo by offering cheaper, more flexible transportation, changing the way we get around. On one hand, these companies present challenges to traditional county revenue streams, while on the other hand, they provide new opportunities to improve county planning, mobility and service models. Walker Consultants' Vice President of Parking Consulting Mary Smith spoke with *Commercial Property Executive* about how Transportation Network Companies (TNCs) are affecting parking demand and how that impact could play out in the next few years.

Where do you currently have projects under development?

Smith: Personally, I am working on projects in Doha, Cairo, Dubai as well as in Atlanta, Los Angeles and New Jersey.

Do you think TNCs are a positive or a negative? Why?

Smith: There are many positives, including providing additional mobility options, and for urban dwellers, supporting a car-free lifestyle. Someone can use transit for most trips and TNCs when transit doesn't work well. However, studies are finding TNCs are negatively impacting transit, walking, biking and car sharing, proportionately more than driving and parking. A study by UC Davis found that roughly half of the trips by TNCs would have been made otherwise by transit, walking or biking or not going at all. They found that TNC use reduces bus ridership by 6 percent and light-rail usage by 3 percent, but increases heavy rail transit by 3 percent. Other studies have similar findings. So there are legitimate concerns about TNCs' impact on traffic and congestion, transit etc.

Which businesses are impacted the most by TNCs and how are they affected?

Smith: Aside from parking, the biggest issue for TNC rides right now is the impact of passenger loading. Airports are finding increased congestion at the curb and are moving pickup for TNCs inside parking facilities. Sports and event facilities are dealing with problems staging vehicles for pickup after events, with the volumes still growing rapidly year over year.

(https://www.cpexecutive.com/wp-content/uploads/2018/04/Interview-quote-CPE-Mary-Smith.jpg)

How do TNCs impact cities?

Smith: Cities are beginning to have to turn on-street parking to passenger loading zones. Over time, they will lose parking revenue if TNC use outpaces parking development growth.

How are ride-sharing services impacting parking demand?

Smith: From a parking perspective, airport parking transactions per enplanement are down by 5-20 percent with parking by business travelers appearing to be most impacted. It depends upon the parking rates and convenience of parking at the specific airport. Moreover, the impact is even greater on taxis and rental cars at airports and the fees that airports receive from those transactions. In turn, hotels are seeing up to a 70 percent decline in parking by business travelers, although there is much less impact on leisure traveler parking, as well as banquet and local event parking. Restaurants and bars, particularly those with valet parking, are seeing up to an 80 percent reduction in parking, apparently due to concerns both for convenience and cost of parking, and to avoid drinking and driving. Sports and events facilities are seeing a 3-6 percent reduction in parking from a few years ago.

How will driverless cars impact parking demand?

Smith: While many in the planning community project as much as a 90 percent reduction in parking demand in the U.S. within a decade or so due to autonomous vehicles (AVs), we believe it will be slower and much less impactful. We simply don't believe that 90 percent of Americans can or will give up cars and use **driverless cars (https://www.cpexecutive.com/post/4-big-trends-that-will-shape-cre-a-futurists-guide/)** instead, particularly shared-ride providers like UberPool and Lyft Line, which are necessary to get to the 90 percent figure cited in most articles.

How will parking demand change in the next years?

Smith: About one-third of Americans live in areas with a population less than 200,000 people, where shared TNC rides are unlikely to be nearly as cost-effective and convenience and comfort will play a bigger role. Further, we have 260 million non-automated vehicle (AV) cars on the road today, and millions more that will be sold in the next decade (before AVs are available to consumers). We think there will be a maximum reduction in parking demand across the U.S. of about 40 percent, and that the full impact won't be achieved until at least 2050. Where a parking facility serves activities that grow with population, like airports, downtowns and universities, the parking demand will continue to rise through about 2030 and then come back down to the demand today around 2050. Certainly, the impact will be much higher than a 40 percent reduction in the urban core areas, but it will be lower in suburbs and much lower in rural areas and smaller cities and towns.

How do you think self-driving vehicles will impact parking planning?

Smith: In addition to the reduction of parking due to driverless TNC rides, "autonomous parking" by privately owned AVs, will allow passengers to be dropped at the door and then the car will go and park itself, perhaps at a lower cost parking facility a few blocks away. Wherever they park, they can park closer together, because car doors don't need to be opened at the parking stall. As a result, the capacity of parking facilities may go up at the same time parking demand goes down. We need to plan for significantly increased passenger loading zones in the future for most parking structures designed today.

There is significant potential for the seas of asphalt surrounding most suburban developments to be redeveloped with office, residential, hotels, restaurants and even retail that would share with existing **parking recourses (https://www.cpexecutive.com/post/right-sizing-your-parking/)**.

Can you name a few metros that are experiencing parking issues?

Smith: We are hearing the above referenced reductions to hotels, airports, bars/restaurants are pretty consistent in major metro areas across the US. Las Vegas is having enough problems with TNC loading that they are starting to turn on-street parking into loading zones.

What are the future plans regarding parking demand?

Smith: The impacts on parking in downtowns, universities and others land uses that have multiple parking facilities, will be absorbed by the market over time; surface lots in prime locations will be developed with little or no new parking, and older deteriorated garages will be torn down and redeveloped as well. While many talk about designing new parking facilities to be completely converted to other uses in the future, we haven't found a single client willing to pay any significant premium to do much more than provide more floor-to-floor height now.

And if you don't take other design steps now, like strengthening the structure for the heavier loads of office, retail and apartment uses and/or providing a façade that is easily converted, it will cost much more to convert in the future, while you will end up with a space that is probably significantly compromised compared to what the future market wants and needs.

Image courtesy of Walker Consultants

Walker Consultants (/tag/walker-consultants/)

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Appendix B **PROPOSED SITE PLAN**

1220 Oakmead Parkway

Sunnyvale, California

PROJECT DATA

ADDRESS:	1220 OAKMEAD PARKWAY
ASSESSOR PARCEL NUMBER:	216-44-048
SITE AREA:	0.93 ACRES (40,314 SF)
ZONING:	M-S
EXISTING USE:	VACANT COMMERCIAL
PROPOSED USE:	HOTEL
GUEST ROOMS PROPOSED:	152 ROOMS
STORIES ALLOWED:	8 STORIES
STORIES PROPOSED:	6 STORIES + BASEMENT
HEIGHT ALLOWED:	75 FEET
HEIGHT PROPOSED:	74 FEET
LOT COVERAGE ALLOWED:	45% (18,060 SF)
LOT COVERAGE PROPOSED:	41.3% (16,640 SF)
LANDSCAPED AREA:	20.4% (8,245 SF)
CONSTRUCTION TYPE:	IA (BASMENT GARAGE & 1ST FLOOR) IIIA (2ND THRU 6TH FLOOR)
OAKMEAD PKWY YARD REQUIRED:	35 FEET
LAKESIDE DR. YARD REQUIRED:	25 FEET
PARKING REQUIRED:	122 SPACES (0.8 SPACES PER ROOM)
PARKING PROPOSED:	93 SPACES (0.6 SPACES PER ROOM)
GARAGE PARKING:	80 SPACES
SURFACE PARKING:	13 SPACES
ACCESSIBLE PARKING:	4 SPACES
EV PARKING:	5 SPACES
BICYCLE SHORT TERM:	8 BIKES
BICYCLE LONG TERM:	8 BIKES

PROJECT DESCRIPTION

THIS PROJECT PROPOSES A NEW 6 STORY, 152 GUEST ROOM HOTEL ON THE APPROXIMATELY 0.93 ACRE SITE. THE SITE IS ZONED M-S AND A HOTEL USE IS ALLOWED WITH A USE PERMIT. THIS HOTEL WILL BE BRANDED. THE SPECIFIC BRAND IS YET TO BE DETERMINED.

PARKING FOR THE HOTEL IS PRIMARILY PROVIDED IN BELOW GRADE PARKING GARAGE. THE PARKING RATIO IS BEING PROPOSED AS REDUCED WITH THE SUPPORT OF A TRAFFIC DEMAND MANAGEMENT PLAN AND PARKING ANALYSIST.

HOTEL AMENITIES ARE FOR HOTEL GUESTS ONLY AND INCLUDE A FITNESS ROOM, DINING, MEETING FACILITIES, PATIO, AND POOL.

SHEET INDEX

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A1.1	CONTEXTUAL PHOTOS
A2.0	PROPOSED SITE PLAN /GARAGE 1 FLOOR PLAN
A2.1	BASEMENT / GARAGE 2 LEVEL PLAN
A2.2	FIRST FLOOR PLAN
A2.3	SECOND, THIRD & FOURTH FLOOR PLANS
A2.4	ROOF PLAN
A4.0	PERSPECTIVE RENDERING
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A5.0	EXTERIOR ELEVATION
A5.1	EXTERIOR ELEVATION
A5.2	EXTERIOR ELEVATION
A5.3	EXTERIOR ELEVATION
A6.0	PROPOSED HOTEL SECTION 1
A6.1	PROPOSED HOTEL SECTION 2
A7.0	COLOR AND MATERIAL BOARD

CIVIL SHEETS

C-1	XX

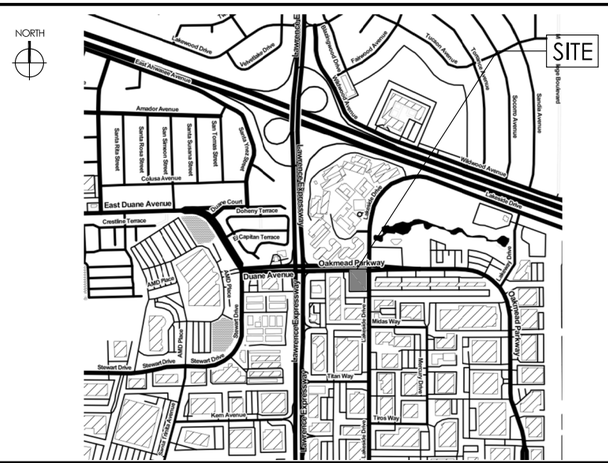
LANDSCAPE SHEETS

L-1	XX

GUESTROOM DATA

FLOOR	KING	KING ADA	DBLE QUEEN	DBLE QUEEN ADA	1 BED	1 BED ADA	TOTAL
2ND FLOOR	15 ROOMS	1 ROOM	10 ROOMS	1 ROOM	-	1 ROOM	28 ROOMS
3RD FLOOR	18 ROOMS	1 ROOM	10 ROOMS	1 ROOM	1 ROOM	-	31 ROOMS
4TH FLOOR	18 ROOMS	1 ROOM	11 ROOMS	-	1 ROOM	-	31 ROOMS
5TH FLOOR	18 ROOMS	1 ROOM	11 ROOMS	-	1 ROOM	-	31 ROOMS
6TH FLOOR	18 ROOMS	1 ROOM	11 ROOMS	-	1 ROOM	-	31 ROOMS
TOTALS	87	5	53	2	4	1	152 ROOMS

VICINITY MAP



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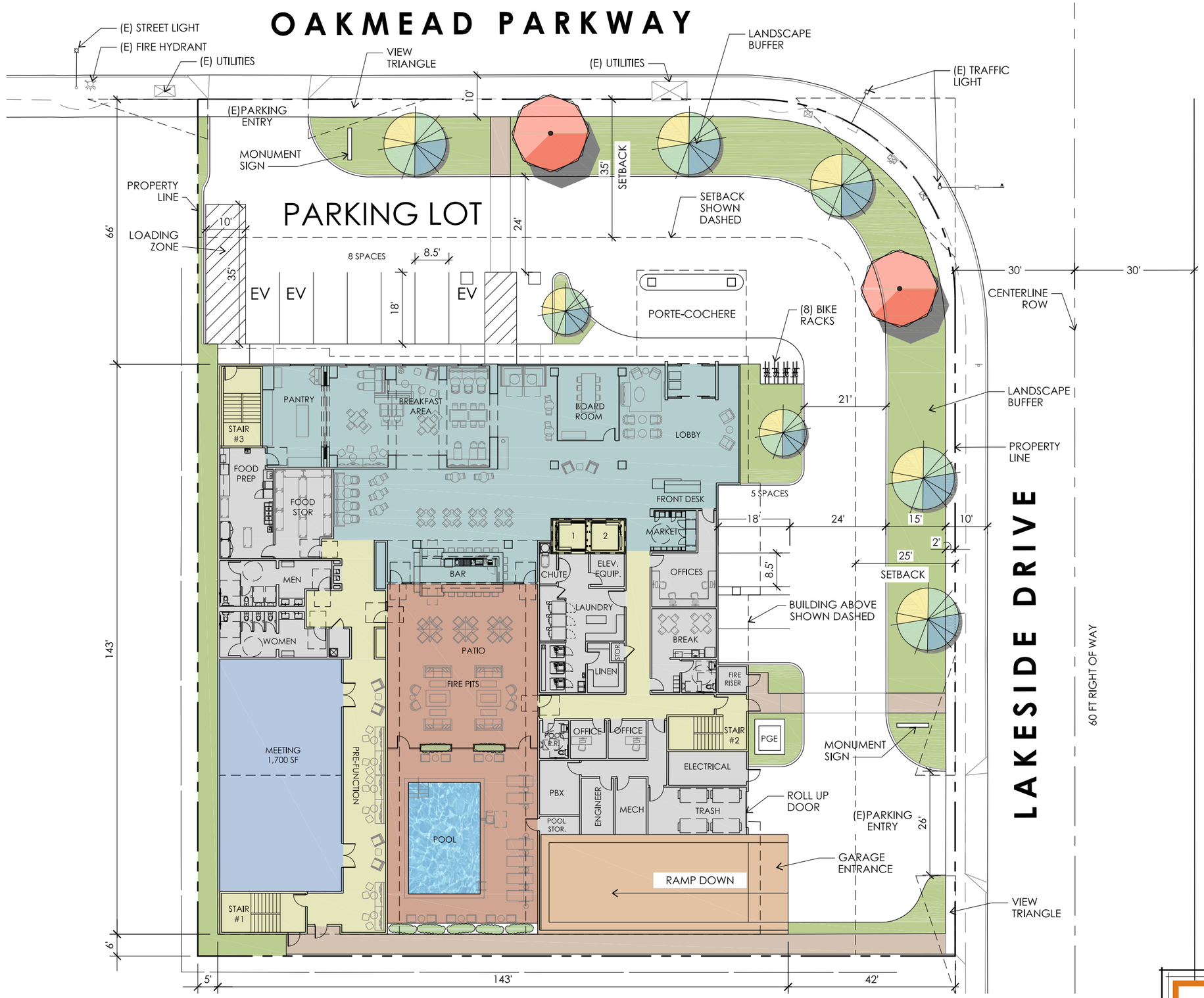
EMAIL: LINDSAY@FIRMACONSULTANTS.COM

ARRIS
STUDIO ARCHITECTS

1220 Oakmead Parkway
Sunnyvale, CA

Date NOVEMBER 8, 2021
Scale N.T.S.
Sheet A1.0



PROPOSED SITE PLAN / FIRST FLOOR PLAN

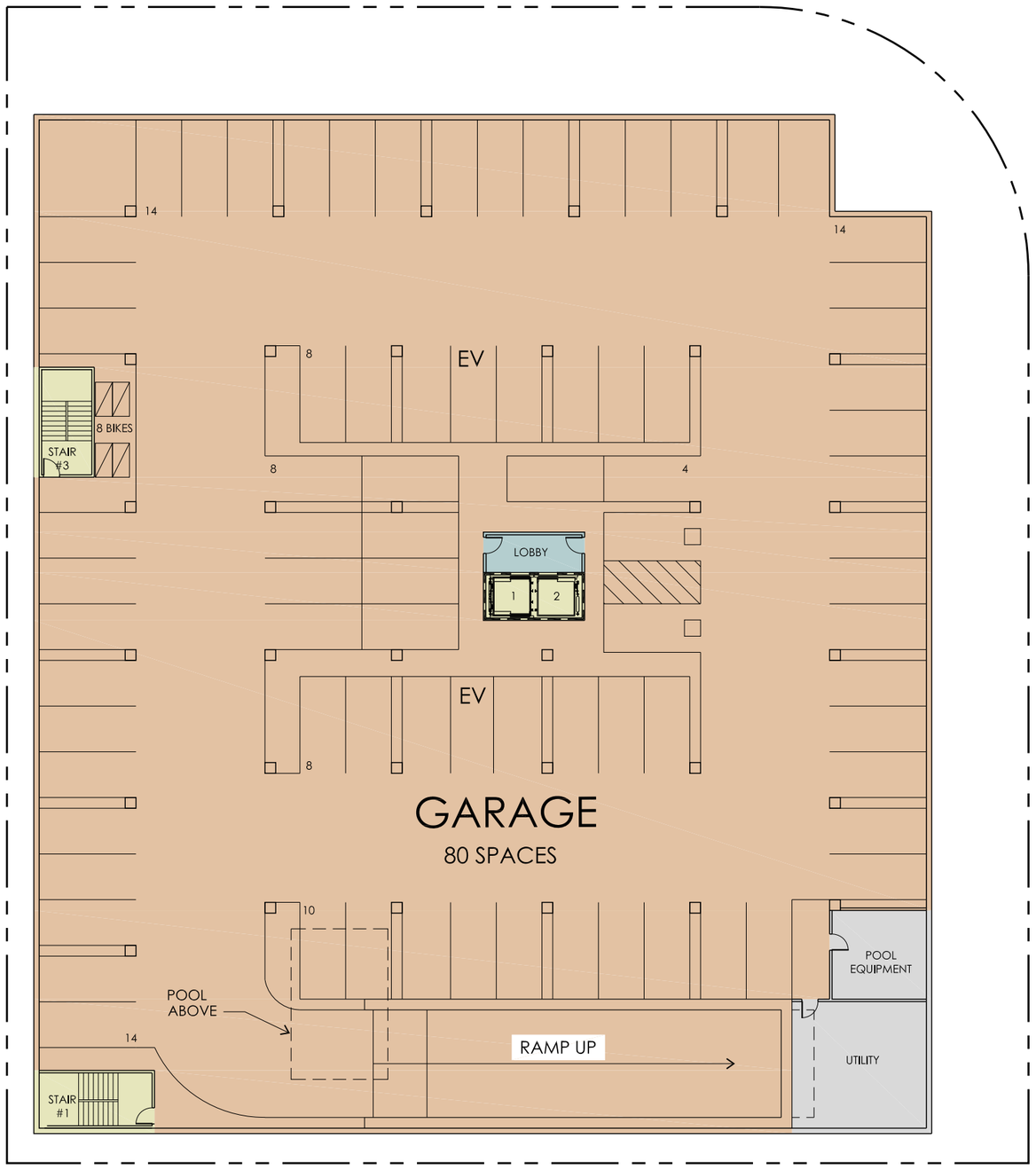
NORTH

0 5 10 25

Arris STUDIO ARCHITECTS

1220 Oakmead Parkway
Sunnyvale, CA

Date NOVEMBER 8, 2021
Scale 1" = 30' @ 11x17
1" = 15' @ 24x36
Sheet A2.0



BASEMENT GARAGE

NORTH

0 5 10 25

Arris STUDIO ARCHITECTS

1220 Oakmead Parkway
Sunnyvale, CA

Date NOVEMBER 8, 2021
Scale 1" = 30' @ 11x17
1" = 15' @ 24x36
Sheet **A2.1**

Appendix C ITE PARKING (ITE 312 BUSINESS HOTEL)

Land Use: 312 Business Hotel

Description

A business hotel is a place of lodging aimed toward the business traveler but also accommodates a growing number of recreational travelers. These hotels provide sleeping accommodations and other limited facilities, such as a breakfast buffet bar and afternoon beverage bar. Some provide a full-service restaurant geared toward hotel guests. Some provide a swimming pool; most provide fitness facilities. Limited space for meeting facilities may be provided. Each unit is a large single room. Hotel (Land Use 310), all suites hotel (Land Use 311), motel (Land Use 320), and resort hotel (Land Use 330) are related uses.

Time of Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand on a weekday (two study sites) and a Saturday (one study site) in a general urban/suburban setting.

	Percent of Peak Parking Demand	
Hour Beginning	Weekday	Saturday
12:00–4:00 a.m.	100	82
5:00 a.m.	–	–
6:00 a.m.	–	96
7:00 a.m.	89	98
8:00 a.m.	64	87
9:00 a.m.	56	74
10:00 a.m.	49	64
11:00 a.m.	45	56
12:00 p.m.	45	48
1:00 p.m.	41	44
2:00 p.m.	39	40
3:00 p.m.	39	46
4:00 p.m.	44	48
5:00 p.m.	48	55
6:00 p.m.	51	60
7:00 p.m.	54	64
8:00 p.m.	62	67
9:00 p.m.	72	81
10:00 p.m.	86	88
11:00 p.m.	93	100

Additional Data

The average parking supply ratio for the eight study sites in a general urban/suburban setting and with parking supply information is 1.1 spaces per room. For one dense multi-use urban site, the parking ratio is 0.9 spaces per room.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Georgia, and Washington.

For all lodging uses, it is important to collect data on occupied rooms as well as total rooms.

Parking demand at a hotel may be related to the presence of supporting facilities such as convention facilities, restaurants, meeting/banquet space and retail facilities. Future data submissions should indicate the presence of these amenities and specify their size. Reporting the level of activity at the supporting facilities (such as full, empty, partially active, number of people attending a meeting/ banquet) during observation may also be useful in further analysis of this land use.

Source Numbers

6, 217, 311, 314, 401, 512, 526