The Scottsdale Collection

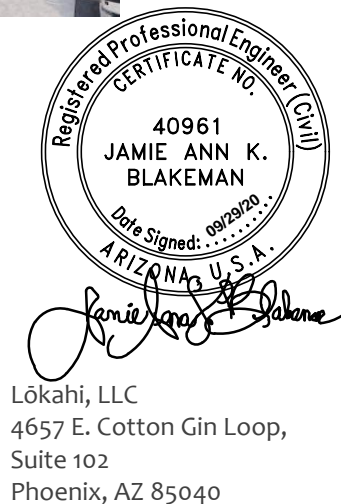## Parking Master Plan

Prepared for:

STOCKDALE CAPITAL PARTNERS

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Project Number: 20.5097
September 29, 2020

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1. Executive Summary

Lōkahi, LLC (Lōkahi) was retained by Stockdale Capital Partners, LLC to complete a Parking Master Plan for three components of The Scottsdale Collection development. The development is located on the southeast corner (SEC) of Scottsdale Road and Camelback Road in Scottsdale, Arizona.

The proposed parking provided at all of the proposed development sites - the City Center, Mint, and Hotel Maya - will meet and exceed the parking demand. The parking for Hotel Maya is provided at the adjacent W Hotel and proposed flexible plaza located directly south of development. The peak parking demand for the proposed developments typically occur overnight and on weekends during off-peak times for area office and retail uses.

The Scottsdale Collection development will include three development areas which proposes the following land uses:

- Parcel A (City Center)
    - Option 1
      Hotel — 214 rooms
      Multi-Family Residential — 106 units (53 one-bedroom, 53 two-bedroom)
      Retail/Restaurant — 41,109 square feet
    - Option 2
      Multi-Family Residential — 237 units (118 one-bedroom, 119 two-bedroom)
      Retail/Restaurant — 46,887 square feet
    - Option 3
      Hotel — 449 rooms
      Retail/Restaurant — 46,887 square feet
- Parcel B (Mint)
    - Option 1
      Multi-Family Residential — 62 units (31 one-bedroom, 31 two-bedroom)
      Retail/Restaurant — 27,561 square feet
    - Option 2
      Hotel — 116 rooms
      Retail/Restaurant — 28,016 square feet
- Parcel C (Maya Hotel)
      Hotel — 164 rooms

The multi-family residential units in the City Center and Mint scenarios will be all for-purchase condominium units.

The following ten (10) parcels are additional properties identified for future development as part of The Scottsdale Collection:

1. Parcel 173-41-086A
2. Parcel 173-41-083A
3. Parcel 173-41-087
4. Parcel 173-41-145
5. Parcel 173-41-146
6. Parcel 173-41-174
7. Parcel 173-41-257
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The redevelopment of these sites is uncertain in terms of timing as well as land use. At a future date, when and if these sites are considered for redevelopment, it is planned to provide adequate parking for the specific land use on each respective site.

This Parking Master Plan focuses on Parcels A (City Center), B (Mint), and C (Maya Hotel), where conceptual plans are underway.

Proposed Parking

The Scottsdale Collection development anticipates providing the following parking stalls:

- Parcel A (City Center)   521 parking stalls
- Parcel B (Mint)   242 parking stalls
- Parcel C (Maya)   Remote parking agreement

The goal of this Parking Master Plan is to define the parking needs for the three development areas for The Scottsdale Collection development without providing an overabundance of parking; for an overabundance of parking is a waste of resources (both public and private) and runs counter to many principles of more walkable communities, which is a part of the vision for Old Town Scottsdale.

Multi-Family

Multi-family residents still depend on vehicles to get around. However, the recent trends show that they are less dependent on their vehicles than in past years, particularly in urban areas. Residents who choose to live in downtown areas are opting to live where they can walk to bike to nearby amenities such as coffee shops, restaurants, stores, etc.

With the goal of understanding current parking demands of multi-family residences located in urban areas, trends both locally and nationally were evaluated

Local – Parking Demand Data Collection

Three independent parking demand data collection efforts were conducted at Scottsdale multi-family developments. All three developments were located within walking and biking distance to nearby amenities such as coffee shops, restaurants, retail/shopping, etc. The data was collected in recent months on both a typical weekday and typical weekend evening and therefore, reflects current parking demand trends.

- **Broadstone Waterfront**
  Broadstone Waterfront provides its residents a total of 1.53 parking stalls per unit, which was found to be more than adequate parking to meet the parking demand of its residents. This data collection effort consisted of collecting parking demand data at adjacent nearby parking and showed no parking overflow in these areas. The 1.53 parking stalls per unit provided for Broadstone Waterfront residents may in fact reflect an overabundance of parking. For the purposes of this analysis, and as a conservative estimate, it is assumed all of the **1.02 parking stalls per bedroom** is needed to meet the Broadstone Waterfront parking demand.

- **Dwell**
  The peak parking demand for Dwell is **0.75 parking stalls per bedroom**.

- **Las Aguas**
  The peak parking demand for Las Aguas is **1.09 parking stalls per bedroom**.

Local – Census Data

United States Census Bureau census data for vehicle ownership specifically for the area of The Scottsdale Collection development was evaluated. The number of vehicles owned per household has shown to vary throughout the Phoenix metropolitan area. Therefore, by narrowing census data to the development area, the vehicle ownership characteristics of residents living in this area is captured. A vehicle ownership rate of **1.13 vehicles per unit** was reported.

National – ITE and ULI Publications

Two nationally accepted publications, ITE's *Parking Generation, 5th Edition*, and ULI's *Shared Parking, 3rd Edition* are sources for estimating parking demand based on research and experiences of planners, government agencies, consultants, and engineers. The average weekend peak period parking demand based on the ITE publication is **0.77 parking stalls per bedroom**, and using a conservative mix of units, the weekday and weekend ULI publication results in a ratio of **0.92 and 0.95 parking stalls per bedroom, respectively**.

National – Parking Trends

There is a great deal of information in various publications regarding parking needs of multi-family developments. The **overriding theme is that there are ongoing changes in land use and transportation that are driving down the demand for parking**.

According to "People Over Parking" published by the American Planning Association (October 2018), "tinkering with minimum parking requirements is not new…what's different now is an evolving understanding that urban lifestyles are changing, **traditional parking ratios are outdated, and too much supply can be as harmful as too little**." Two groups, TransForm and Center for Neighborhood Technology, conducted surveys during the middle of the night at apartments on the West Coast and Chicago and found that consistently "one-quarter to one-third of spaces sat empty."

Conclusion

Evaluating data collected at three multi-family residential development located in the Scottsdale, analyzing census data of vehicle ownership for the area containing The Scottsdale Collection development, examining average peak parking occupancy rates reported in two national publications, and factoring in recent parking trends, the parking demand falls within a range of 0.75 to 1.09 parking stalls per bedroom.

As a general engineering practice, infrastructure is not built to accommodate absolute peak demands. There is a balance between building-out adequate infrastructure for a reasonable demand level. Empty private parking stalls do not serve the interest of the community, development, the City of Scottsdale or the public at-large.

Therefore, for The Scottsdale Collection development, it is recommended that 1.10 parking stalls per bedroom be provided. It should be noted, census data of the area along with national data supports even lower parking stalls per unit ratios.

The 1.10 parking stalls per bedroom is an additional 10% over Scottsdale Code. For The Scottsdale Collection, where the assumption is a 50/50 split between one and two-bedroom units, results in **an additional stall for every 7.5 units**.

Hotel

Located in the heart of Old Town Scottsdale, The Scottsdale Collection is located within close proximity to nearby shopping, restaurants and night life, which promotes and invites alternative modes of travel. Additionally, free trolley services are provided by the City of Scottsdale and the growing popularity of rideshare services such as Uber and Lyft, and bikeshare services, all contribute to reducing the reliance on personal vehicles, and thereby reducing parking demand.

Rideshare data collected from Phoenix Sky Harbor from June 2016 through July 2019 show rideshare has grown from approximately 20,000 trips to 171,000 trips over 38 months, which is a 756.1% growth. Based on the data, rideshare is trending upwards year after year. Hotel parking demand is highly tied to ride share statics as hotel patrons are opting to use ride share over renting vehicles especially in downtown areas.

With the goal of understanding current parking demands of hotels located in urban areas, trends both locally and nationally were evaluated

Local – W Hotel Data
The W Hotel is located between the proposed City Center and Maya Hotel sites. Daily overnight parking transaction totals were analyzed for four years, 2016 through 2019. The maximum parking reduced by 23.7% over the course of the four year for an **average annual drop of nearly 8% per year**. The most recent year showed a maximum occupancy of **0.43 parking stalls per available guest room**.

Local – Parking Demand Data Collection
Three independent parking demand data collection efforts were conducted at three Old Town Scottsdale hotel developments. All three developments were located within walking and biking distance to nearby amenities such as coffee shops, restaurants, retail/shopping, etc.

- **Old Town Scottsdale Hotel A**
  Parking demand data was collected at Old Town Scottsdale Hotel A in 2018. The peak parking demand for Old Town Scottsdale Hotel A is **0.44 parking stalls per available hotel room**. Applying the average annual parking reduction experienced at the W Hotel to Old Town Scottsdale Hotel A would result in **0.37 occupied parking stalls per available room**.

- **Old Town Scottsdale Hotel B**
  Parking demand data was collected at Old Town Scottsdale Hotel B in 2018. The peak parking demand for Old Town Scottsdale Hotel B is **0.59 parking stalls per available hotel room**. This data was collected when the hotel reported a 91.8% room occupancy. Applying the average annual parking reduction experienced at the W Hotel to Old Town Scottsdale Hotel B would result in **0.49 occupied parking stalls per available room**.

- **Old Town Scottsdale Hotel C**
  Parking demand data was collected at Old Town Scottsdale Hotel C in 2020. The peak parking demand for Old Town Scottsdale Hotel C is **0.65 parking stalls per available hotel room**. This data was collected when the hotel reported a 100% room occupancy.

The identities are not disclosed to protect the privacy of these hotels.

Local – Experience Scottsdale Data

Experience Scottsdale conducted a survey of Old Town Scottsdale hotel. Based on the survey, 89% of the hotel need one parking for every two or three rooms. Using the higher of rate results in **0.5 parking stalls per available guest room**. Applying the average annual parking reduction experienced at the W Hotel would result in **0.42 occupied parking stalls per available room**.

National – Ace Parking Analysis

Ace Parking provided monthly parking data for more than 80 hotels for the year 2017. The data included hotels from across the United States, ranging from a 35 to a 1,628 guest room hotel, from ALoft San Francisco to The Phoenician in Phoenix. A detailed parking analysis was conducted to determine the parking demand of these eighty plus hotels.

The data showed that on the highest day (Saturday) of each month none of the hotels exceed 0.8 parking stalls per total number of guest rooms. Applying the average annual parking reduction experienced at the W Hotel to the 2017 Ace data results in a maximum parking demand of **0.61 occupied parking stalls per available room**.

National – Parking Trends

There is a great deal of recent information in various publications regarding parking needs. A recent (February 24, 2018) article found on **Fortune.com** reports that Ace Parking CEO John Baumgardner says that demand for parking in San Diego hotels has dropped. The article states: "Even back in 2015, cities were already relaxing zoning requirements that set minimum parking allotments, and there are now even more signs that city planners are thinking differently about parking."

Additionally, the growing popularity of rideshare services such as Uber and Lyft, and bikeshare services, all contribute to reducing the reliance on personal vehicles, and thereby reducing parking demand.

Conclusion

Evaluating the four most recent years of parking data at the W Hotel showed parking demand drops year after year for an 8% average drop annually. Analyzing local parking data collected at four nearby hotels during peak occupancy periods results in a peak parking demand range between 0.43 and 0.65. Experience Scottsdale Old Town hotel surveys further confirms this range. Additionally, national parking data at more than 80 hotels was evaluated. Applying the annual reduction experienced at the W Hotel, none of the 80 hotels would exceed a parking demand of 0.61 parking stall per available hotel room.

As mentioned previously, the growing popularity of rideshare services such as Uber and Lyft, and bikeshare services, has disrupted the hotel parking demand which has been trending downward year after year.

As previously mentioned, as a general engineering practice, infrastructure is not built to accommodate absolute peak demands. There is a balance between building-out adequate infrastructure for a reasonable demand level. Empty private parking stalls do not serve the interest of the community, development, the City of Scottsdale or the public at-large.

Therefore, The Scottsdale Collection development would provide sufficient parking utilizing a rate of 0.65 parking stalls per available hotel room. However, as a conservative approach, a previously accepted rate of 0.80 was utilized to calculate the parking demand.

The recommended parking supply ratios for The Scottsdale Collection are as follows:

- Multi-family development   1.10 per bedroom (max)
- Hotel   0.80 per guest room (max)

The following City of Scottsdale non-residential parking criteria was used for retail and restaurant land uses:

- Mixed-Use Developments
  - Nonresidential area   1 per 350 sf of gross floor area (GFA)

The City Center and Mint are both mixed-use developments where the City of Scottsdale Code of Ordinances provides shared use parking calculations.

City Center Parking Calculations

Applying the maximum recommended multi-family and hotel parking ratios, the City of Scottsdale's parking requirement for the nonresidential component of mixed-use development, and shared use parking calculations to the three (3) possible options for the City Center results in the following:

City Center: Option 1 Parking Calculations

General Land Use Classification	Parking Required	Weekday			Weekend		
		12 am - 7 am	7 am - 6 pm	6 pm to 12 am	12 am - 7 am	7 am - 6 pm	6 pm to 12 am
Residential	175	175	96	149	175	114	131
Restauratant and Bars	59	30	41	59	27	41	59
Retail	59	0	59	47	0	59	35
Hotel	172	172	112	155	172	112	138
Total	465	377	308	410	374	326	363
Difference From Provided	56	144	213	111	147	195	158
% Difference	12.0%	38.2%	69.2%	27.1%	39.3%	59.8%	43.5%

City Center: Option 2 Parking Calculations

General Land Use Classification	Parking Required	Weekday			Weekend		
		12 am - 7 am	7 am - 6 pm	6 pm to 12 am	12 am - 7 am	7 am - 6 pm	6 pm to 12 am
Residential	392	392	216	333	392	255	294
Restauratant and Bars	67	34	47	67	30	47	67
Retail	67	0	67	54	0	67	41
Total	526	426	330	454	422	369	402
Difference From Provided	-5	95	191	67	99	152	119
% Difference	-1.0%	22.3%	57.9%	14.8%	23.5%	41.2%	29.6%

City Center: Option 3 Parking Calculations

General Land Use Classification	Parking Required	Weekday			Weekend		
		12 am - 7 am	7 am - 6 pm	6 pm to 12 am	12 am - 7 am	7 am - 6 pm	6 pm to 12 am
Restauratant and Bars	67	34	47	67	30	47	67
Retail	67	0	67	54	0	67	40
Hotel	360	360	234	324	360	234	288
Total	494	394	348	445	390	348	395
Difference From Provided	27	127	173	76	131	173	126
% Difference	5.5%	32.2%	49.7%	17.1%	33.6%	49.7%	31.9%

Using the recommended parking ratios for the multi-family and hotel land uses, paired with City of Scottsdale shared parking calculations for mixed use developments, the City Center parking demand at a <u>maximum</u> would fall between 410 and 454 parking stalls depending on the site plan option selected. With 521 proposed parking stalls provided for the proposed City Center development, the three (3) options results in a surplus between 67 (14.8%) and 111 (27.1%) parking stalls.

Mint Parking Calculations

Similarly, applying the maximum recommended multi-family and hotel parking ratios, the City of Scottsdale's parking requirement for the nonresidential component of mixed-use development, and shared use parking calculations to the two (2) possible options for the Mint results in the following:

Mint: Option 1 Parking Calculations

General Land Use Classification	Parking Required	Weekday			Weekend		
		12 am - 7 am	7 am - 6 pm	6 pm to 12 am	12 am - 7 am	7 am - 6 pm	6 pm to 12 am
Residential	103	103	57	88	103	67	77
Restauratant and Bars	40	20	28	40	18	28	40
Retail	39	0	39	32	0	39	24
Total	182	123	124	160	121	134	141
Difference From Provided	60	119	118	82	121	108	101
% Difference	33.0%	96.7%	95.2%	51.3%	100.0%	80.6%	71.6%

Mint: Option 2 Parking Calculations

General Land Use Classification	Parking Required	Weekday			Weekend		
		12 am - 7 am	7 am - 6 pm	6 pm to 12 am	12 am - 7 am	7 am - 6 pm	6 pm to 12 am
Restauratant and Bars	41	21	29	41	18	29	41
Retail	40	0	40	32	0	40	24
Hotel	93	93	60	84	93	60	74
Total	174	114	129	157	111	129	139
Difference From Provided	68	128	113	85	131	113	103
% Difference	39.1%	112.3%	87.6%	54.1%	118.0%	87.6%	74.1%

Using the recommended <u>maximum</u> parking ratios for the multi-family and hotel land uses, paired with City of Scottsdale shared parking calculations for mixed use developments, the Mint parking demand at a <u>maximum</u> would fall between 157 and 160 parking stalls depending on the site plan option selected. With 242 proposed parking stalls provided for the proposed Mint development, the two (2) options results in a surplus between 82 (51.3%) and 85 (54.1%) parking stalls.

Hotel Maya Parking Calculations

Hotel Maya will consist of 164 hotel rooms and will always operate with a valet service. The valet will be located at the entrance to the site, along Buckboard Trail. The valet service will park guest vehicles in nearby shared parking garages. The Hotel Maya will have a shared parking agreement with the nearby W Hotel, which is also owned and operated by Stockdale Capital Properties, LLC. Additionally, Hotel Maya will utilize the proposed 22 parking stalls at the flexible plaza located directly south of the proposed hotel.

Parking demand calculations including the maximum hotel parking ratio of 0.80 parking stalls per available room was calculated.

For Hotel Maya, 132 parking stalls is anticipated to provide adequate parking to exceed the maximum parking demand.

W Hotel

The W Hotel is located immediately adjacent just west of the proposed Hotel Maya. The peak parking demand for the W Hotel is 104 parking stalls. With 218 parking stalls, **during peak times there is a surplus of 114 parking stalls**.

Additionally, the proposed flexible plaza located directly south of the proposed Hotel Maya can accommodate an additional 22 parking stalls.

This surplus accommodates the proposed Hotel Maya's maximum parking demand 100% of the time, with an excess of 4 parking stalls.

Additionally, The Scottsdale Collection development also supports a number of the strategies included in the City of Scottsdale's *2015 Downtown Parking Study*.

More Accurate and Flexible Standards – *Adjust parking standards to more accurately reflect demand in a particular situation (10-30% reduction).*

> The aim of this Parking Master Plan is to provide a more accurate, flexible, customized standard for parking based on specific needs of The Scottsdale Collection. The goal of the analysis presented is to build adequate parking, but not an overabundance of parking. For too much parking is a waste of resources, resources that can be used to better meet the goals of the Old Town Scottsdale Character Area Plan. Too much parking works against walkability. Greater walkability is one of the chief aims of the Character Area Plan.

Smart Growth – *Encourage more compact, mixed, multi-modal development to allow more parking sharing and use alternative modes (10-30% reduction).*

The overall master plan for The Scottsdale Collection is based on the very concept of smart growth: more compact, mixed, and multi-modal. Much of the circulation plan is based on strengthening pedestrian connections and complete street strategies.

The proposed parking provided at all of the proposed development sites - the City Center, Mint, and Hotel Maya - will meet and exceed the parking demand. The parking for Hotel Maya is provided at the adjacent W Hotel and proposed flexible plaza located directly south of development. The peak parking demand for the proposed developments typically occur overnight and on weekends during off-peak times for area office and retail uses.

2. Introduction

Lōkahi, LLC (Lōkahi) was retained by Stockdale Capital Partners, LLC to complete a Parking Master Plan for three developments within the The Scottsdale Collection development. The development is located on the southeast corner (SEC) of Scottsdale Road and Camelback Road in Scottsdale, Arizona.

The Scottsdale Collection development will include three development areas which proposes the following land uses:

- Parcel A (City Center)
    - <u>Option 1</u>
      Hotel   *214 rooms*
      Multi-Family Residential *106 units (53 one-bedroom, 53 two-bedroom)*
      Retail/Restaurant   *41,109 square feet*
    - <u>Option 2</u>
      Multi-Family Residential *237 units (118 one-bedroom, 119 two-bedroom)*
      Retail/Restaurant   *46,887 square feet*
    - <u>Option 3</u>
      Hotel   *449 rooms*
      Retail/Restaurant   *46,887 square feet*
- Parcel B (Mint)
    - <u>Option 1</u>
      Multi-Family Residential *62 units (31 one-bedroom, 31 two-bedroom)*
      Retail/Restaurant   *27,561 square feet*
    - <u>Option 2</u>
      Hotel   *116 rooms*
      Retail/Restaurant   *28,016 square feet*
- Parcel C (Maya Hotel)
  Hotel   *164 rooms*

The multi-family residential units in the City Center and Mint scenarios will be all for-purchase condominium units.

The following ten (10) parcels are additional properties identified for future development as part of The Scottsdale Collection:

1. Parcel 173-41-086A
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The redevelopment of these sites is uncertain in terms of timing as well as land use. At a future date, when and if these sites are considered for redevelopment, it is planned to provide adequate parking for the specific land use on each respective site.

This Parking Master Plan focuses on Parcels A (City Center), B (Mint), and C (Maya Hotel), where conceptual plans are underway.

Scope of Study

The goal of this Parking Master Plan is to **define the parking needs for the three development areas for The Scottsdale Collection development without providing an overabundance of parking**; for **an overabundance of parking is a waste of resources (both public and private) and runs counter to many principles of more walkable communities**, which is a part of the vision for Old Town Scottsdale.

As noted in Urban Land Institute publication *The Dimensions of Parking, 5th Ed.*:

> "In recent years, three separate but related planning approaches have focused attention on the negative impacts of the "more is better" philosophy of parking: smart growth, transit oriented development, and new urbanism. All three approaches strive to use land more efficiently, contribute to the availability of affordable housing, reduce dependence on automobile travel, and create more livable communities. All three also rely heavily on the same things: mixed use, higher density, buildings at the sidewalk, less private and more public open space, smaller blocks, narrow streets with wider sidewalks, street trees and lighting, lower parking ratios, shared parking, parking behind buildings, and on-street parallel parking."

Many of these components are integral to The Scottsdale Collection development and the Parking Master Plan.

Surrounding Area

The Scottsdale Collection development is located in the Entertainment District of Old Town Scottsdale. The Entertainment District is bordered by Camelback Road, 6th Avenue, Scottsdale Road, and Miller Road to the north, south, west, and east, respectively. The Scottsdale Fashion Square and Scottsdale Waterfront developments are located to the west, across Scottsdale Road.

Additionally, several other commercial and residential developments border the Entertainment District to the east, north, and south. The Arizona Canal runs northeast beneath the south and east legs of the Scottsdale Road and Camelback Road intersection.

The proposed City Center site is bordered by Camelback Road, Shoeman Lane, Scottsdale Road, and Brown Avenue to the north, south, west, and east, respectively. The W Hotel is located directly east, across Brown Avenue and the proposed Marquee development is located directly south, across Shoeman Lane.

The proposed Mint development is bordered by Camelback Road to the north, Civic Center Plaza along the developments southern and eastern border, and Saddlebag Trail to the west. Additionally, commercial developments are located across all bordering roadways.

The proposed Maya Hotel is bordered by Indian Plaza, Shoeman Lane, Buckboard Trail, and commercial developments to the north, south, west, and east, respectively. The W Hotel is located directly west, across Buckboard Trail. Additionally, commercial developments are located across Indian Plaza and Shoeman Lane.

See **Figure 1** for a vicinity map.

PROPOSED SITE

McDonald Road

Jackrabbit Road

Chaparral Road

Camelback Road

LOOP 101

Indian School Road

Osborn Road

56th Street

64th Street

68th Street

Goldwater Boulevard

Scottsdale Road

Drinkwater Boulevard

76th Street

Hayden Road

Granite Reef Road

Pima Road
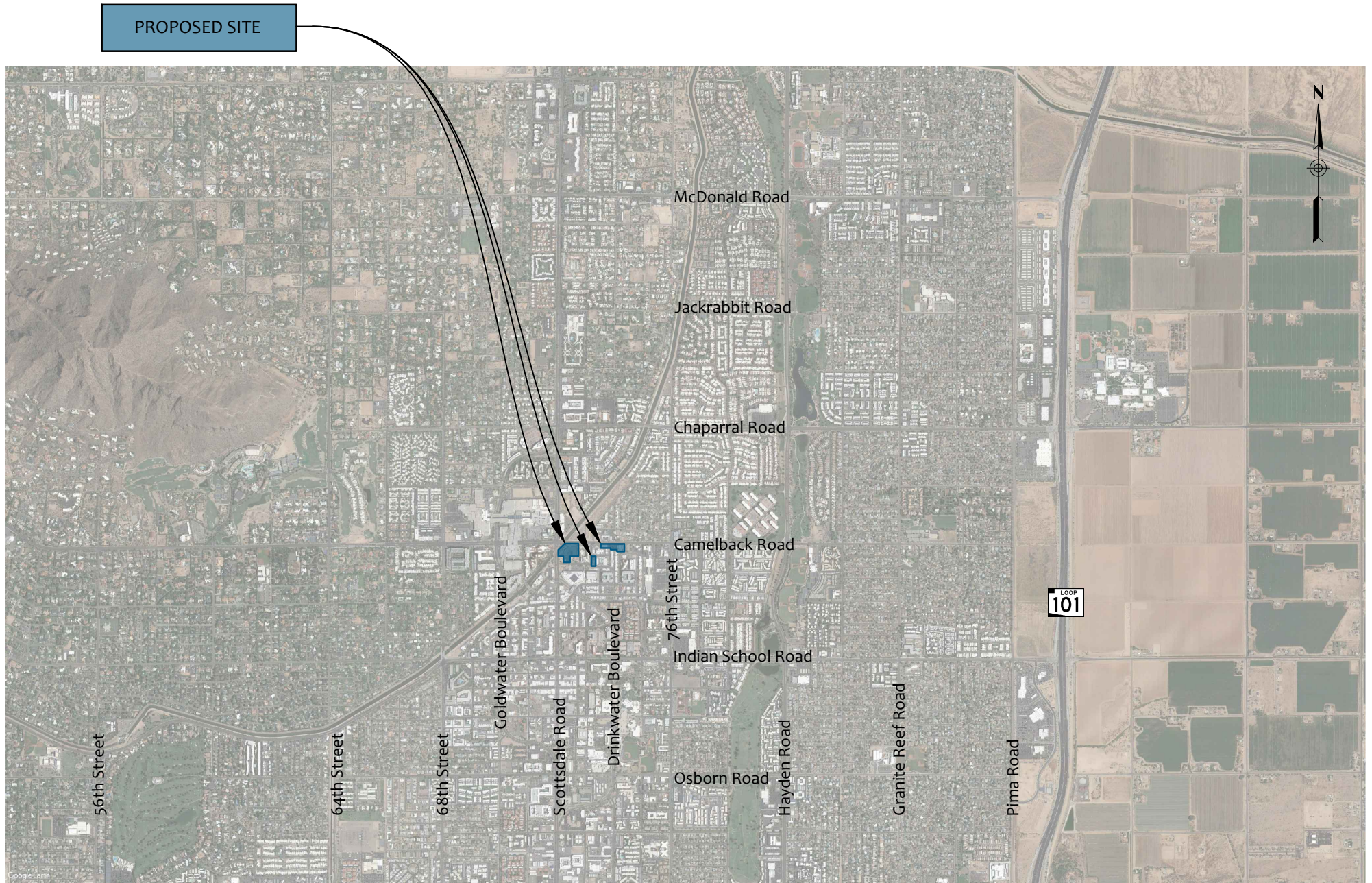
FIGURE 1 | VICINITY MAP

3. Proposed Development

The study area is located at the heart of the Entertainment District in the City of Scottsdale, Arizona, approximately two miles west of State Route Loop 101 (SR 101L) and four and a half miles north of State Route Loop 202 (SR 202L). The proposed site will be located on the southeast corner of Scottsdale Road and Camelback Road.

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See **Figure 2** and **Appendix A** for the proposed site plan.

Proposed Parking

The Scottsdale Collection development anticipates providing the following parking stalls:

- Parcel A (City Center)   521 parking stalls
- Parcel B (Mint)   242 parking stalls
- Parcel C (Maya)   Remote parking agreement (See **Section 7**)

CAMELBACK ROAD

CITY CENTER

THE MINT

THE MAYA

SCOTTSDALE ROAD

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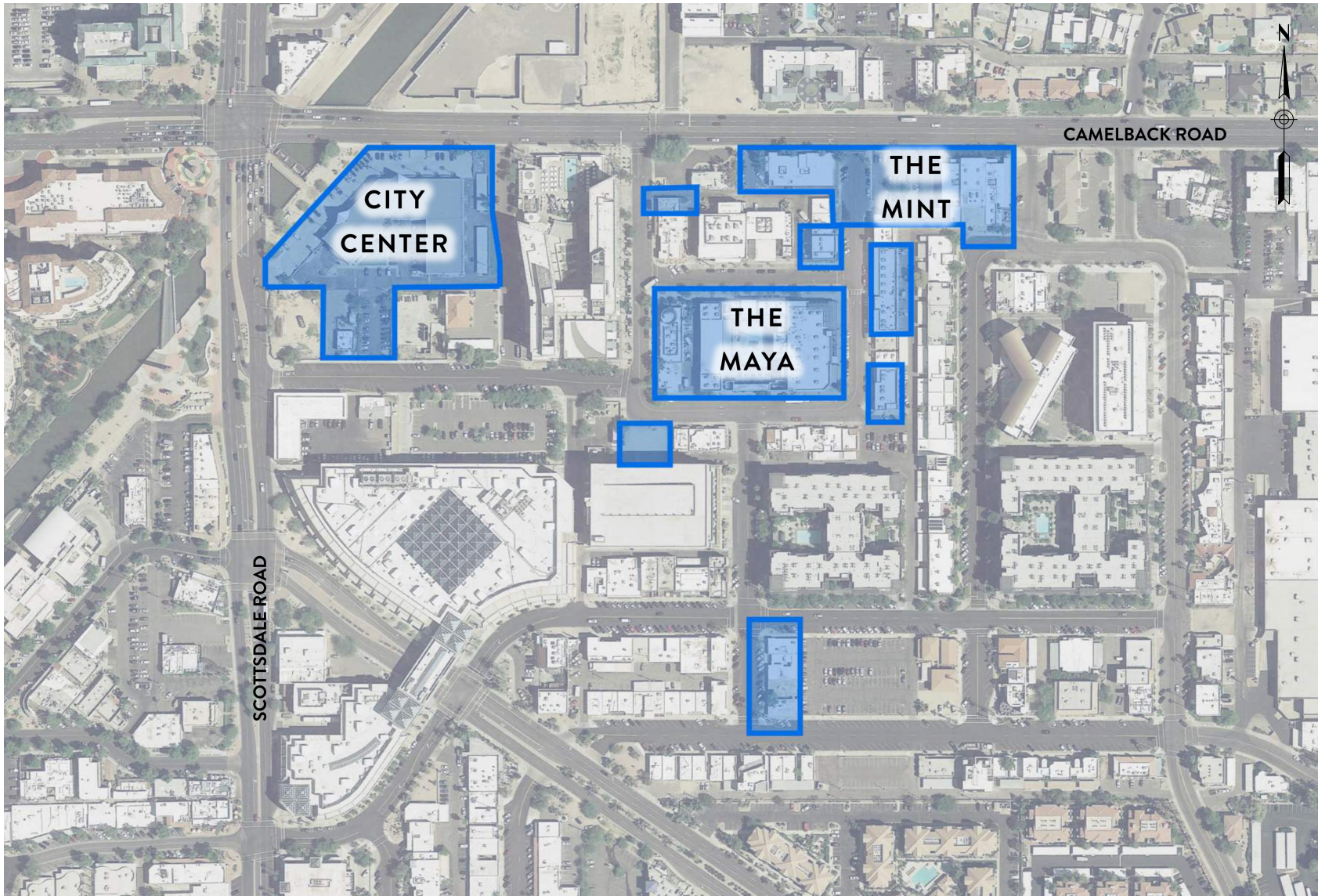
FIGURE 2 | SITE PLAN

4. Multi-Family

Multi-family residents still depend on vehicles to get around. However, they recent trends show that they are less dependent on their vehicles than in past years, particularly in urban areas. Residents who choose to live in downtown areas are opting to live where they can walk to bike to nearby amenities such as coffee shops, restaurants, stores, etc. This section analyzes the current multi-family parking demand.

4.1. Broadstone Waterfront

Broadstone Waterfront is a luxury multi-family development located in Old Town Scottsdale located less than 1,000 feet west of The Scottsdale Collection development. This is a premier residential development boasting luxury and elegant living situated in the midst of a multitude of restaurants and retail amenities.

There has been recent concern expressed in the community that Broadstone Waterfront is under parked and resident parking overflows into the adjacent Nordstrom parking garage and on-street parking along Marshall Way. Therefore, in response to this concern, parking occupancy data was collected at the Scottsdale Fashion Square Nordstrom parking garage, which is located on the north side of Via Soleri Drive. The distance between the entrance to this garage and the Broadstone Waterfront garage is approximately 60 feet. Parking occupancy data was also collected for the on-street parking stalls lined along Marshall Way south of Camelback Road. These on-street angled parking stalls are located adjacent and in very near proximity to the Broadstone Waterfront development.

Data was collected on a typical weeknight and weekend night, Thursday, April 2, 2020 and Saturday, April 4, 2020. Parking occupancy was recorded between the hours of midnight to 6:00 am every 30 minutes. The results of the data show:

> Thursday, April 2, 2020
>> Nordstrom Parking Garage   midnight to 6:00 am   0 vehicles parked
>> Marshall Way   midnight to 2:00 am   2-3 vehicles parked
>>   2:30 am to 6:00 am   0 vehicles parked

> Saturday, April 4, 2020
>> Nordstrom Parking Garage   midnight to 6:00 am   0 vehicles parked
>> Marshall Way   midnight to 6:00 am   0 vehicles parked

Detailed parking occupancy data sheets are provided in **Appendix B**.

Broadstone Waterfront occupancy at the time of data collection was 95.4%. It should also be noted that this parking data was collected during "stay at home" orders during COVID-19 which went into effect on March 31, 2020. This would imply that the majority or all of the vehicles for Broadstone Waterfront residents would be parked.

Analyzing the parking occupancy data, it can be concluded that the Broadstone Waterfront development provides sufficient parking for their residents as essentially no on-street and garage parking was observed. This was also the second time parking occupancy data was collected in this area. The prior data collection occurred in June of 2019 and concluded with similar findings.

Broadstone Waterfront has a total of 259 units (130 studio/1-bedroom, and 126 2-bedroom) with a total of 396 parking stalls dedicated for residential use. Therefore, **a total of 1.02 parking stalls per bedroom are provided for the Broadstone Waterfront development** which provides more than adequate number of parking stalls.

4.2. Dwell

Dwell is another multi-family development located in Scottsdale near shopping, dining, schools, banks and entertainment venues. It is located one-tenth mile north of the intersection of McDowell Road and 70th Street, and provides 193 multi-family dwelling units. The following is a breakdown of the units available at Dwell:

- Studio   21 units
- One-Bedroom   92 units
- Two-Bedroom   80 units

Similar to Broadstone Waterfront, data was collected on a typical weeknight and weekend night. On Wednesday, March 4th and Saturday, March 7th, 2020, parking occupancy counts were collected every 30 minutes from midnight to 6:00 am. At the time of the data collection, Dwell reported an occupancy of 96.9%.

A summary of the parking occupancy data collected at the Dwell development is shown in **Table 1** below. Detailed parking occupancy data sheets are provided in **Appendix B**.

Table 1 – Dwell Parking Occupancy Data Collection

Date:	3/4/2020	3/7/2020
Day of Week:	Thursday	Saturday
Time	Occupied Stalls	Occupied Stalls
12:00AM	198	194
12:30AM	198	195
1:00AM	205	195
1:30AM	201	195
2:00AM	203	199
2:30AM	205	198
3:00AM	203	200
3:30AM	203	199
4:00AM	203	205
4:30AM	193	196
5:00AM	193	197
5:30AM	190	193
6:00AM	184	192
Maximum	205	205
Ratio (occupied stall/bedroom)	0.75	0.75

During the time of the observations, the maximum parking occupancy count was 205 stalls, which occurred during both Wednesday and Saturday. The represents a **peak parking demand of 0.75 occupied parking stalls per bedroom**.

4.3. Las Aguas

Las Aguas is a multi-family development boasting to be a community located close to everything important to their residents. It is located just minutes from Desert Botanical Garden, the Phoenix Zoo and ample golf courses with easy access to shopping, dining and recreation. It is located approximately one-third mile east of the intersection of McDowell Road and 64th Street and provides 154 multi-family dwelling units. The following is a breakdown of the units available at Las Aguas:

- One-Bedroom   95 units
- Two-Bedroom   59 units

Similar to Broadstone Waterfront and Dwell, data was collected on a typical weeknight and weekend night. On Wednesday, April 2nd and Saturday, April 4th, 2020, parking occupancy counts were collected every 30 minutes from midnight to 6:00 am. At the time of the data collection, Las Aguas reported an occupancy of 99.3.

Las Aguas provides the following parking options for its residents:

- 101 surface stalls
- 123 garage stalls
- 51 single-vehicle garage stalls

At the time of the data collection, Las Aguas indicated that two (2) of the single-vehicle parking garage stalls were being utilized for on-site maintenance operations, while the remaining 49 were leased by residents. Therefore, as a conservative approach, the 49 single-vehicle parking garages stalls were considered to be fully occupied.

A summary of the parking occupancy data collected at the Las Aguas development is shown in **Table 2**. Detailed parking occupancy data sheets are provided in **Appendix B**.

Table 2 – Las Aguas Parking Occupancy Data Collection

Date:	4/1/2020	3/7/2020
Day of Week:	Wednesday	Saturday
Time	Occupied Stalls	Occupied Stalls
12:00AM	229	230
12:30AM	230	230
1:00AM	230	232
1:30AM	230	231
2:00AM	230	231
2:30AM	230	231
3:00AM	230	232
3:30AM	230	232
4:00AM	230	233
4:30AM	230	233
5:00AM	230	232
5:30AM	229	230
6:00AM	227	227
Maximum	230	233
Ratio (occupied stall/bedroom)	1.08	1.09

During the time of the observations, the maximum parking occupancy count was 233 stalls, which occurred during on Saturday. This represents a **peak parking demand of 1.09 occupied parking stalls per bedroom**.

4.4. Census Bureau Data

The United States Census Bureau conducts the American Community Survey (ACS), which is an ongoing survey that provides information each year on data throughout local communities. The ACS contains questions such as: occupation, ancestry, education, income, veteran status, and home ownership or rentals. Among the various questions in the survey is a question on how many vehicles are kept at the house for use by members of the household.

Utilizing the Maricopa Association of Governments (MAG) Arizona Demographics map tool, the ACS data was obtained for the boundary surrounding the study area. See **Appendix C**.

A boundary is provided that encompasses the study area, from Osborn Road to Camelback Road, and from Scottsdale Road to Miller Road. The results of the surveys completed in this study area indicate the following estimates for household vehicles ownership:

- No vehicle available
- 1 vehicle available
- 2 vehicles available
- 3 or more vehicles available

- No vehicles available   10.6%
- One vehicle available   68.7%
- Two vehicles available   18.3%
- Three or more vehicles available   2.4%
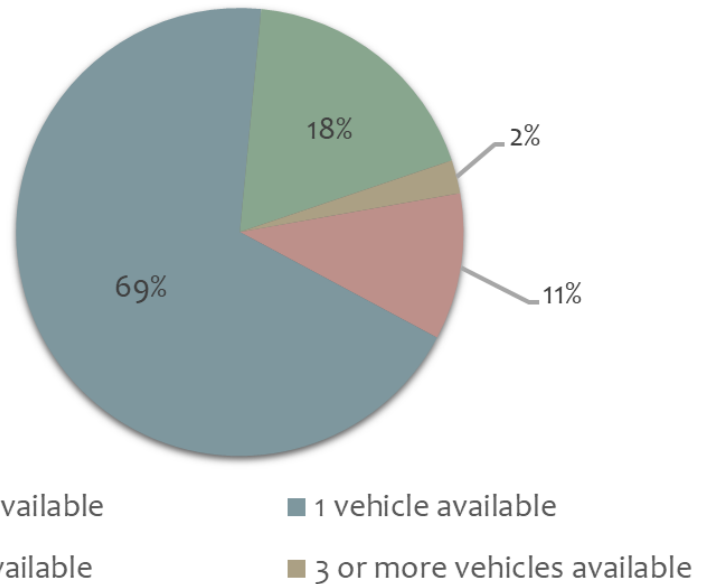
Assuming three vehicles owned in the three or more category results in a **vehicle ownership rate of 1.13 vehicles per unit** (household).

4.5. ITE Parking Generation

The Institute of Transportation Engineers (ITE) publication titled *Parking Generation, 5th Edition* is utilized for estimating parking demand based on research and experiences of transportation engineering and planning professionals.

The *Parking Generation, 5th Edition* provides rates for multi-family (mid-rise) developments, of which, multi-family (mid-rise) sites were surveyed nationally, and were organized by the following setting types:

- Center City Core
- Dense Multi-Use Urban
- General Urban Suburban

The General Urban/Suburban data was selected as an appropriate category for application to The Scottsdale Collection development.

The average weekday peak period parking demand for General Urban/Suburban (no nearby rail transit) site is 0.75 parking stalls per bedroom, and the average Saturday peak period parking demand is **0.77 parking stalls per bedroom**.

The *Parking Generation, 5th Edition,* also indicates that of the 39 multi-family (mid-rise) sites that were surveyed in General Urban/Suburban settings, on average, the site provided a parking supply of **1.0 parking stalls per bedroom**.

It should be noted that both of these ratios accommodate parking for residents, guests, visitors, and services for the multi-family sites.

4.6. ULI Shared Parking

The *Urban Land Institute (ULI)* publication titled *Shared Parking, 3rd Edition* is an additional source for estimating parking demand based on research and experiences planners, government agencies, consultants, and engineers. Similar to the ITE Parking Generation publication, ULI's Shared Parking publication provides base parking demand ratios based on various land uses. According to ULI's *Shared Parking, 3rd Edition,* 80 studies were performed at multi-family sites, of which 23 were in urban areas, while the remaining 57 sites (71%) were located in general suburban areas.

The following are the base weekday and weekend vehicle parking ratio minimums for multi-family residential developments:

Weekday

Studio efficiency	0.85 per dwelling unit
One Bedroom	0.90 per dwelling unit
Two Bedroom	1.65 per dwelling unit
Visitor	0.10 per dwelling unit

Weekend

Studio efficiency	0.85 per dwelling unit
One Bedroom	0.90 per dwelling unit
Two Bedroom	1.65 per dwelling unit
Visitor	0.15 per dwelling unit

It is anticipated that for each of the multi-family options for the proposed City Center and Mint, there will be approximately 50% one-bedroom units and 50% two-bedroom units provided.

Therefore, applying this percentage distribution to the weekday and weekend ULI shared parking ratios results in **0.92** and **0.95 parking stalls per bedroom**, respectively. See **Table 3** and **Table 4**.

Ultimately the type of unit is determined by market conditions and will vary. However, the above assumes 50% of two bedroom units which require a greater amount of parking. Therefore, the ratio calculated should represent a conservative and reasonable rate.

Table 3 – ULI Shared Parking – Weekday

Unit Type	Typical Percentage of Total Unit Count	ULI Base Rate (parking stalls per unit)	Visitor Rate (parking stalls per unit)	Total Rate (parking stalls per unit)	Total Rate (parking stalls per bedroom)
One-Bedroom	50%	0.90	0.10	1.00	1.00
Two-Bedroom	50%	1.65	0.10	1.75	0.88
				Weighted Average	**0.92**

Table 4 – ULI Shared Parking – Weekend

Unit Type	Typical Percentage of Total Unit Count	ULI Base Rate (parking stalls per unit)	Visitor Rate (parking stalls per unit)	Total Rate (parking stalls per unit)	Total Rate (parking stalls per bedroom)
One-Bedroom	50%	0.90	0.15	1.05	1.05
Two-Bedroom	50%	1.65	0.15	1.80	0.90
				Weighted Average	**0.95**

4.7. Parking Trends

There is a great deal of information in various publications regarding parking needs. This section examines a small sample of books, articles, and significant points of interest related to multi-family parking.

The issue of parking needs for residential developments is not a new topic. In his book "The High Cost of Free Parking," published in 2005 by American Planning Association (revised in 2011), UCLA professor Donald Shoup found 129 articles reporting cities that have removed off-street parking requirement in their downtowns since 2005 in order "to promote the creation of downtown apartments (Greenfield, Massachusetts), to see more affordable housing (Miami), to give business owners more flexibility while creating a vibrant downtown (Sandpoint, Idaho), and to prevent ugly auto-oriented townhouses (Seattle)."

An extensive 2015 parking study "Right Size Parking" led by King County Metro gathered data from over 200 multi-family sites in King County, WA to determine that "**existing multi-family parking capacity exceeded utilization by an average of 0.4 spaces per housing unit – a 40% oversupply**". According to this report the RSP project has attracted national attention. Several regions and cities around the country are currently working to replicate the RSP study and web calculator concept for their own planning purposes, including the San Francisco Bay Area, Washington, D.C., Boston, and Chicago. Many regions are reexamining parking requirements in support of pedestrian-oriented design, transit access, and a compact mix of uses to include transportation choices." Website www.rightsizeparking.org also provides a multi-family residential parking calculator for King County area as well as guidance on unbundled parking prices and resulting rental prices adjustments.

According to "People Over Parking" published by the American Planning Association (October 2018), "tinkering with minimum parking requirements is not new...what's different now is an evolving understanding that **urban lifestyles are changing, traditional parking ratios are outdated, and too much supply can be as harmful as too little**." Two groups, TransForm and Center for Neighborhood Technology, conducted surveys during the middle of the night at apartments on the West Coast and Chicago and found that consistently "**one-quarter to one-third of spaces sat empty**."

This new focus on alternative transportation modes can take interesting twists in this new world of more cost-effective ride-hailing services, as evidenced by the Aug 8, 2017 article from the Financial Post: Ontario Town's Experiment Using Uber As Public Transportation Is Working, Officials Say. The following provides excerpts from this article.

The town of Innisfil, Ontario is hailing its two-month old experiment to subsidize Uber as the lone form of public transit as a success, with nearly 5,000 trips taken since the pilot project began in May. Innisfil — ... home to about 36,000 people — has paid $26,462.41, or an average of $5.43 per

trip, for 4,868 Uber rides taken in the two months since launching the unique-to-Canada project on May 15.

Another article entitled, Toward Zero Parking: Challenging Conventional Wisdom for Multi-family, by David Baker and Brad Leibon (July 2nd, 2018), mentions additional benefits with the recent shift in transportation trends:

"With the ubiquity of ride-hailing services, residents can walk out their front door, hop in a vehicle, and get dropped off at their destination rather than risk having to drive themselves, park several blocks from their destination, and walk the remaining distance, or walk through a parking garage getting to and from a car."

The author of this article also notes that, "A future not dominated by privately owned cars may be a long way off, but **increasingly the use of a car is becoming detached from the need for parking**."

This brief summary of interconnected articles on the topic of parking needs in the news is by no means comprehensive but does serve to point to several important issues when assessing parking needs.

See **Appendix D** for the articles referenced in this section.

4.8. Conclusion

With the goal of understanding current parking demands of multi-family residences located in urban areas, trends both locally and nationally were evaluated.

Local – Parking Demand Data Collection

Three independent parking demand data collection efforts were conducted at Scottsdale multi-family developments. All three developments were located within walking and biking distance to nearby amenities such as coffee shops, restaurants, retail/shopping, etc. The data was collected in recent months on both a typical weekday and typical weekend evening and therefore, reflects current parking demand trends.

- **Broadstone Waterfront**
  Broadstone Waterfront provides its residents a total of 1.53 parking stalls per unit, which was found to be more than adequate parking to meet the parking demand of its residents. This data collection effort consisted of collecting parking demand data at adjacent nearby parking and showed no parking overflow in these areas. The 1.53 parking stalls per unit provided for Broadstone Waterfront residents may in fact reflect an overabundance of parking. For the purposes of this analysis, and as a conservative estimate, it is assumed all of the **1.02 parking stalls per bedroom** is needed to meet the Broadstone Waterfront parking demand.

- **Dwell**
  The peak parking demand for Dwell is **0.75 parking stalls per bedroom**.

- **Las Aguas**
  The peak parking demand for Las Aguas is **1.09 parking stalls per bedroom**.

Local – Census Data

United States Census Bureau census data for vehicle ownership specifically for the area of The Scottsdale Collection development was evaluated. The number of vehicles owned per household has shown to vary throughout the Phoenix metropolitan area. Therefore, by narrowing census data to the development area, the vehicle ownership characteristics of residents living in this area is captured. A vehicle ownership rate of **1.13 vehicles per unit** was reported.

National – ITE and ULI Publications

Two nationally accepted publications, ITE's *Parking Generation, 5th Edition*, and ULI's *Shared Parking, 3rd Edition* are sources for estimating parking demand based on research and experiences of planners, government agencies, consultants, and engineers. The average weekend peak period parking demand based on the ITE publication is **0.77 parking stalls per bedroom**, and using a

conservative mix of units, the weekday and weekend ULI publication results in a ratio of **0.92 and 0.95 parking stalls per bedroom, respectively**.

National – Parking Trends

There is a great deal of information in various publications regarding parking needs of multi-family developments. The **overriding theme is that there are ongoing changes in land use and transportation that are driving down the demand for parking**.

According to "People Over Parking" published by the American Planning Association (October 2018), "tinkering with minimum parking requirements is not new…what's different now is an evolving understanding that urban lifestyles are changing, **traditional parking ratios are outdated, and too much supply can be as harmful as too little**." Two groups, TransForm and Center for Neighborhood Technology, conducted surveys during the middle of the night at apartments on the West Coast and Chicago and found that consistently "one-quarter to one-third of spaces sat empty."

Conclusion

Evaluating data collected at three multi-family residential development located in the Scottsdale, analyzing census data of vehicle ownership for the area containing The Scottsdale Collection development, examining average peak parking occupancy rates reported in two national publications, and factoring in recent parking trends, the parking demand falls within a range of 0.75 to 1.09 parking stalls per bedroom.

As a general engineering practice, infrastructure is not built to accommodate absolute peak demands. There is a balance between building-out adequate infrastructure for a reasonable demand level. Empty private parking stalls do not serve the interest of the community, development, the City of Scottsdale or the public at-large.

Therefore, for The Scottsdale Collection development, it is recommended that 1.10 parking stalls per bedroom be provided. It should be noted, census data of the area along with national data supports even lower parking stalls per bedroom ratios.

5. Hotel

Located in the heart of Old Town Scottsdale, The Scottsdale Collection is located within close proximity to nearby shopping, restaurants and night life, which promotes and invites alternative modes of travel. Additionally, free trolley services are provided by the City of Scottsdale and the growing popularity of rideshare services such as Uber and Lyft, and bikeshare services, all contribute to reducing the reliance on personal vehicles, and thereby reducing parking demand.

Rideshare data collected from Phoenix Sky Harbor from June 2016 through July 2019 show rideshare has grown from approximately 20,000 trips to 171,000 trips over 38 months, which is a 756.1% growth. Based on the data, rideshare is trending upwards year after year. Hotel parking demand is highly tied to ride share statics as hotel patrons are opting to use ride share over renting vehicles especially in downtown areas.

This section analyzes the current hotel parking demand.
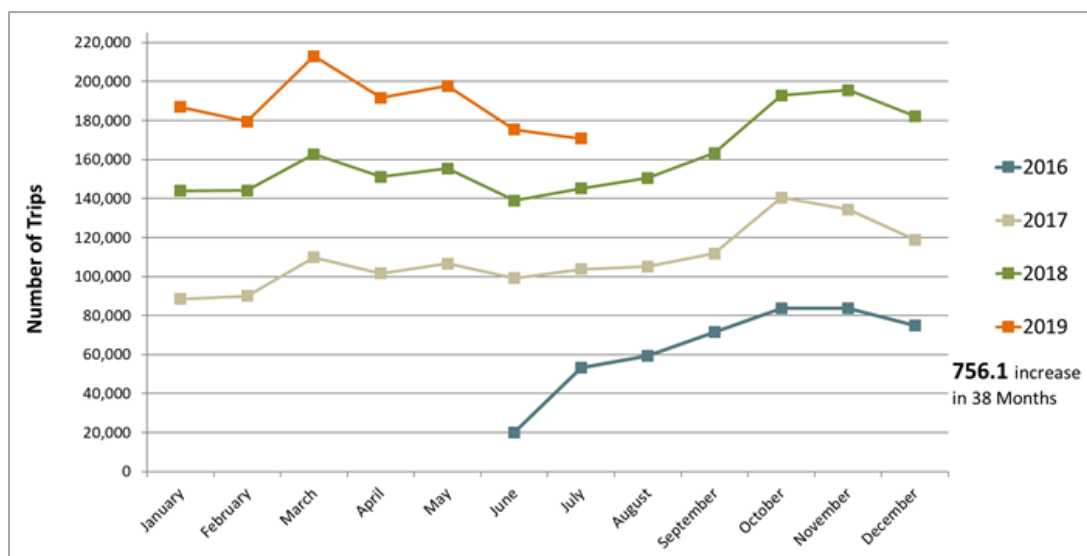
Figure 3 – Ride Share Trips

5.1. W Hotel

The W Hotel is located within the study area, immediately adjacent to the proposed City Center and Hotel Maya developments, at the southwest corner of Camelback Road and Buckboard Trail. The W Hotel provides a total of 243 guest rooms, with a total of 218 parking stalls dedicated to hotel guests and employees, of which 30 of these parking stalls are dedicated for employee use. Daily overnight parking transaction totals were received for the year 2016 through the year 2019, see **Table 5** and **Figure 4** below. See **Appendix E**.

Table 5 – W Hotel Parking Transactions

Year	Occupied Parking Stalls - Overnight (Saturday)	
	Average	Maximum
2016	53	97
2017	44	73
2018	37	78
2019	41	74
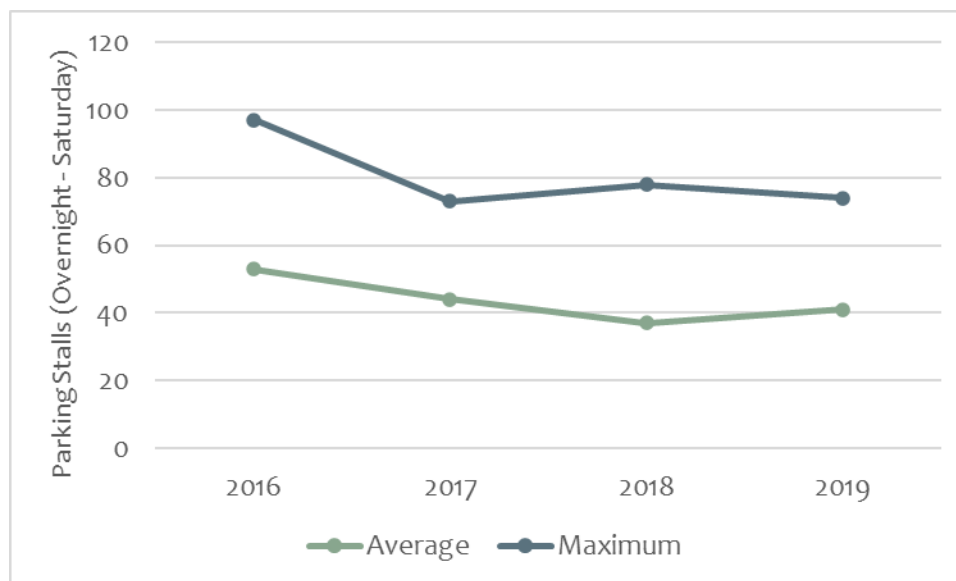
Figure 4 – W Hotel Parking Transactions

As shown in **Table 5**, parking demand at this hotel has been steadily reducing over the most recent four years. Conservatively assuming that all 30 employee parking stalls are occupied and combining that with the 2019 maximum overnight parking demand of 74 parking stalls, this results in a total of 104 occupied parking stalls. This represents a rate of **0.43 parking stalls per available guest room. The Saturday maximum reported overnight parking demand reduced by 23.7% between 2016 and 2019 for an average reduction of 7.9% per year.**

5.2. Old Town Scottsdale Hotel Data Collection

The parking demand was analyzed for three (3) hotels that are located in the Old Town Scottsdale. These three (3) hotels are all located within two-thirds of a mile from Scottsdale Fashion Square, and withing one-half mile of The Scottsdale Collection. **The identities are not disclosed to protect the privacy of these hotels.**

A local data collection firm, Field Data Services of Arizona, Inc., was utilized to collect parking occupancy data at two Old Town Scottsdale hotels, Old Town Scottsdale Hotel A and Old Town Scottsdale Hotel B. The parking occupancy data was collected every 30 minutes between 8:00 pm on Friday, March 23rd, 2018 and 8:00 am on Saturday, March 24th, 2018, and again between 8:00 pm on Saturday, March 24th, and 8:00 am on Sunday, March 25th, 2018. Both hotels provide approximately one (1) parking stall per each available room, with no additional parking provided for the on-site conference facilities or restaurants.

Additionally, Accuracy Counts was utilized to collect parking occupancy data at a third Old Town Scottsdale hotel (Old Town Scottsdale Hotel C). Similarly, the parking occupancy data was collected every 30 minutes between 10:00 pm on Friday, February 21st, 2020 and 7:00 am on Saturday, February 22nd, 2020. The data collection window was narrowed based on the peak parking demand collected at Old Town Scottsdale Hotels A and B. Old Town Scottsdale Hotel C provides approximately one (1) parking stall per each available room.

See **Appendix F** for parking occupancy data.

5.2.1. Old Town Scottsdale Hotel A

The peak parking demand for Old Town Scottsdale Hotel A occurred at 12:30 am on Sunday, March 25th, 2018 with a parking demand of **0.44 occupied parking stalls per available room**. The ratio of occupied parking stalls per total available guest rooms is shown for every 30 minutes for the data collection period in **Figure 5**. Also shown is the City of Scottsdale's parking requirement of 1.25 parking spaces per guest room. The red line does not include the City of Scottsdale's additional parking requirement to accommodate conference/meeting space. Applying the average annual parking reduction experienced at the W Hotel to Old Town Scottsdale Hotel A would result in **0.37 occupied parking stalls per available room**.

The average observed parking demand for Old Town Scottsdale Hotel A was 0.36 and 0.40 occupied parking stalls per available room on Friday night and Saturday night, respectively.

As part of booking Old Town Scottsdale Hotel A, a $29 resort fee is assessed. This fee includes the cost of parking, along with other amenities such as Wi-Fi and bikes. This resort fee is charged to all reservations. Old Town Scottsdale Hotel A also provides 15,000 square feet of conference/meeting space and a restaurant.
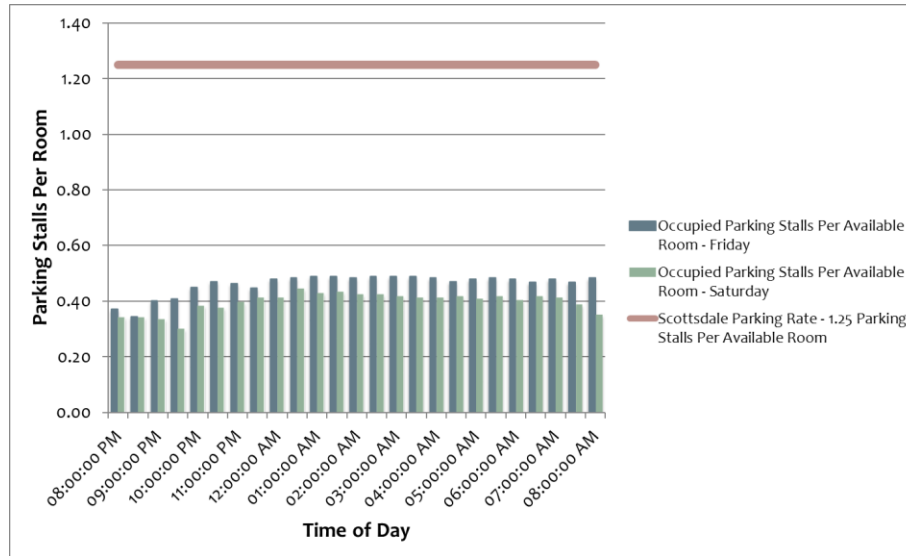
Figure 5 – Old Town Scottsdale Hotel A – Occupied Parking Stalls per Available Room

Hotel occupancy rates were not provided by Old Town Scottsdale Hotel A.

5.2.2. Old Town Scottsdale Hotel B

The peak parking demand Old Town Scottsdale Hotel B occurred at 11:00 pm on Saturday, March 24th, 2018 with a parking demand of **0.59 occupied parking stalls per available room**. The ratio of occupied parking stalls per total available guest rooms is shown for every 30 minutes for the data collection period in **Figure 6**. Similar to **Figure 5**, also shown is the City of Scottsdale's parking requirement of 1.25 parking spaces per guest room. The red line does not include the City of Scottsdale's additional parking requirement to accommodate conference/meeting space. Applying the average annual parking reduction experienced at the W Hotel to Old Town Scottsdale Hotel B would result in **0.49 occupied parking stalls per available room**.

The average observed parking demand for Old Town Scottsdale Hotel B was 0.46 and 0.53 occupied parking stalls per available room on Friday night and Saturday night, respectively.

Old Town Scottsdale Hotel B indicates on their web site that there is an on-site parking fee of $12 per day, and a valet fee of $16 per day. Hotel B also provides over 14,000 square feet of conference/meeting space and restaurant.
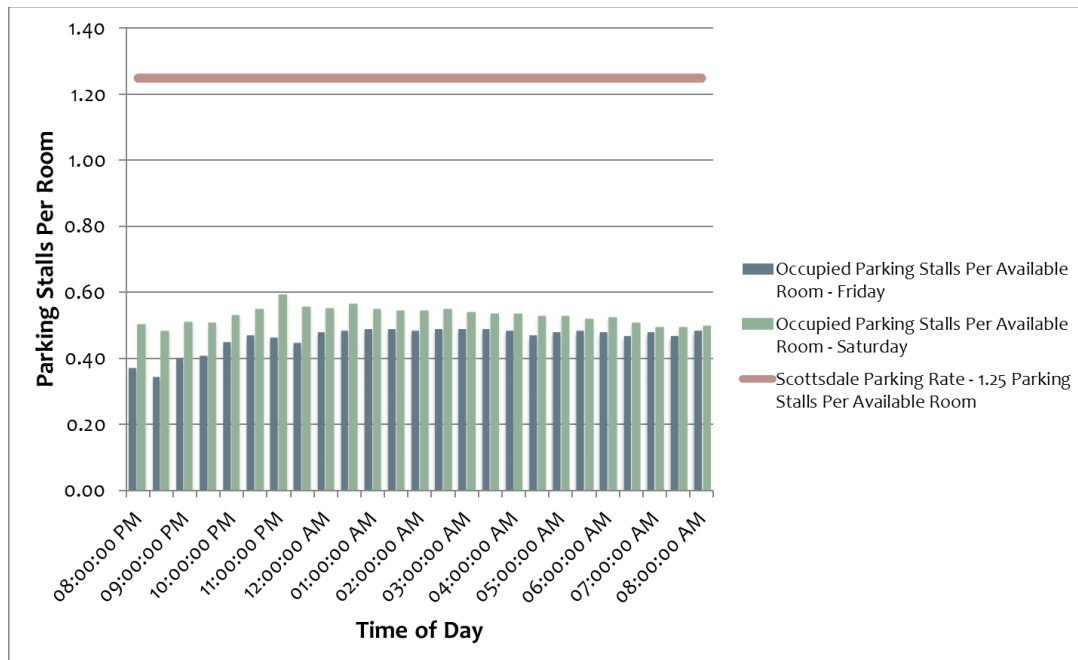
Figure 6 – Old Town Scottsdale Hotel B – Occupied Parking Stalls per Available Room

Room occupancy rates were provided by Hotel B for both nights that parking occupancy data was recorded. Beginning on Friday night (March 23rd, 2018), Old Town Scottsdale Hotel B reported a room occupancy rate of 80.7%. Additionally, beginning on Saturday night (March 24th, 2018), Old Town Scottsdale Hotel B reported a room occupancy rate of 91.8%.

5.2.3. Old Town Scottsdale Hotel C

The peak parking demand for Hotel C occurred at 2:30 am on Saturday, February 22nd, 2020, with a parking demand of **0.65 occupied parking stalls per available room.** The ratio of occupied parking stalls per total available guest rooms is shown for every 30 minutes for the data collection period in **Figure 7**. Similar to the previous figures, also shown is the City of Scottsdale's parking requirement of 1.25 parking spaces per guest room. The red line does not include the City of Scottsdale's additional parking requirement to accommodate conference/meeting space.

The average observed parking demand for Old Town Scottsdale Hotel C was 0.58 occupied parking stalls per available room on Friday night.

Old Town Scottsdale Hotel C indicated that for the night that parking occupancy data was recorded, 100% of the rooms were occupied.
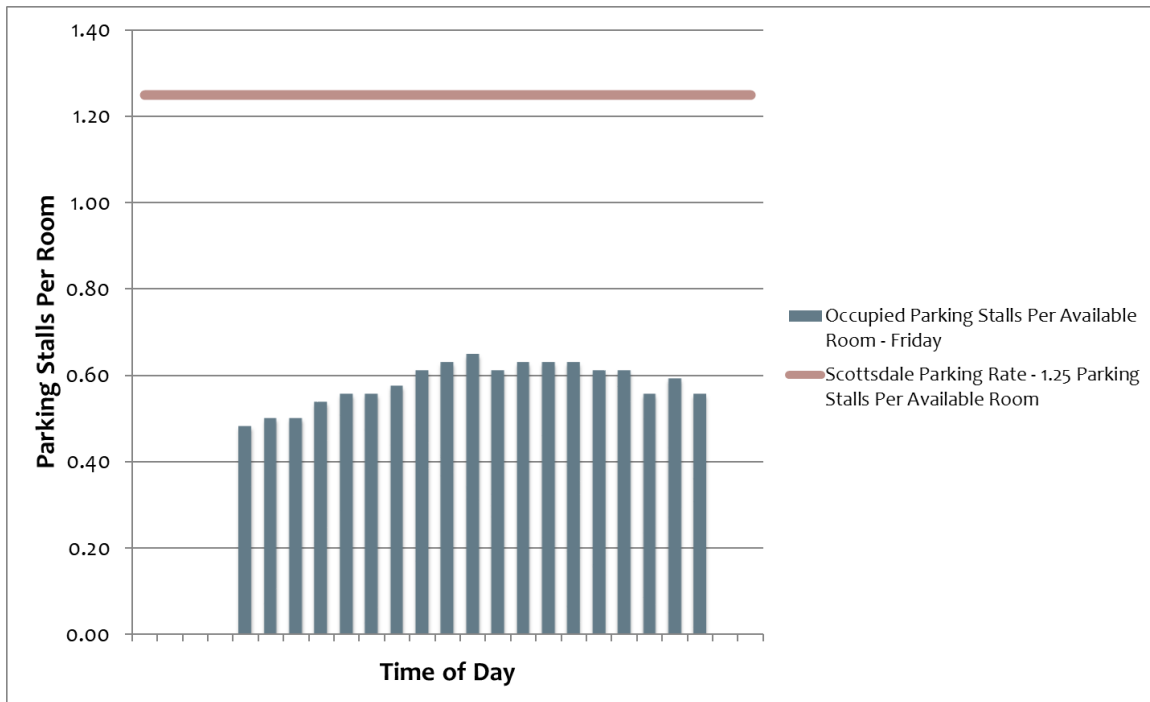
Figure 7 – Old Town Scottsdale Hotel C – Occupied Parking Stalls per Available Room

5.3. Experience Scottsdale Survey

The following is a summary of Old Town Scottsdale hotel parking related survey data provided by the City of Scottsdale Transportation Department, as collected by Experience Scottsdale in 2018. See **Appendix G** for the full survey results.

Based on the survey:

- 50% of the hotel guests use ride share or taxi services
- 78% need parking for hotel guests only or do not host conferences
- 89% need one parking for every two or three rooms

Based on the survey, 89% of the hotel need one parking for every two or three rooms. Using the higher of rate results in **0.5 parking stalls per available guest room**. Applying the average annual parking reduction experienced at the W Hotel would result in **0.42 occupied parking stalls per available room**.

5.4. Ace Parking Analysis

Analysis of Ace Parking data for over 80 hotels for the year 2017 was presented in the Don and Charlie's Hotel Parking Master Plan dated March 13, 2018. See **Appendix H** for the relevant data from the Don and Charlie's Hotel Parking Master Plan. Below is also a summary of the findings presented in the March 13, 2018 Don and Charlie's Hotel Parking Master Plan.

The above mentioned report analyzed the monthly Ace Parking data for over 80 hotels by converting the monthly data into daily data utilizing the average hotel occupancy rates per day of the week as provided by the *ITE Parking Generation, 4th Edition* publication. Under Land Use 310 – Hotel, the average hotel occupancy rates shown in **Table 6** below.

Table 6 – Daily Average Hotel Occupancy Rate (per ITE Parking Generation)

Day of Week	Average Hotel Occupancy (%)
Sunday	51
Monday	62
Tuesday	67
Wednesday	69
Thursday	66
Friday	69
Saturday	72

Utilizing the rates shown in **Table 6** and the average monthly parking data, the rates were converted to daily data. Since Saturday represents the day of the week with highest average hotel occupancy rate this was the data that was analyzed further. **Table 7** summarizes the ratio of occupied parking stalls per total guest rooms on Saturday.

Table 7 – Occupied Parking Stalls per Total Guest Rooms (Saturday)

Month	Occupied Parking Stalls/Total Guest Rooms (Saturday)							
	>.3	>.4	>.5	>.6	>.7	>.8	>.9	>1
January	16	2	1					
February	25	10	1	1				
March	24	13	5					
April	36	14	4	1				
May	26	15	4					
June	31	15	6	1				
July	38	21	12	7	3			
August	33	15	10	2	1			
September	30	15	6					
October	23	10	4					
November	20	10	2					
December	24	12	1					

None of the hotels exceeded 0.8 occupied parking stalls per total guest rooms. Applying the average annual parking reduction experienced at the W Hotel to the 2017 Ace data results in maximum parking demand of **0.61 parking stalls per available room**.

5.5. Parking Trends

There is a great deal of recent information in various publications regarding hotel parking needs. This section examines a small sample of articles and significant points of interest in these articles. The issue of parking needs is not a new topic. In May 2001, **American City and County** published an article: *Calculating Your Parking Needs*. The article points out that determining where parking should be located, calculating how many parking spaces are needed, and how much to charge for parking is a complex process involving several variables. It is noted that the ITE parking needs values based on land-use are a good start point, but that **the most definitive research parking planners can conduct is on the local level**. This 2001 article points out that it is important to understand the impact of transit services on parking needs: "It is not enough to know how many business customers or employees come into a particular section of the city each day; planners must also understand how they are getting there." The article did not contemplate the impacts of recent innovations such as ride-hailing services like Uber and Lyft or bikeshare services like Lime Bike, Spin, Ofo, and GR:D in this important variable.

A recent (February 24, 2018) article found on **Fortune.com** starts to give some idea of these impacts:

Yes, Uber Really Is Killing the Parking Business

The article reports that Ace Parking CEO John Baumgardner says that demand for parking at hotels in San Diego has dropped. The article also points out that parking spaces generate little tax revenue or economic activity relative to commercial operations and that parking, by increasing sprawl, may actually serve to harm the economy of a city. The article states: "Even back in 2015, cities were already relaxing zoning requirements that set minimum parking allotments, and there are now even more signs that city planners are thinking differently about parking."

In January 2018, the City of Scottsdale implemented a ride-hailing service, as reported on the city website: *Scottsdale offers ride-share discounts to visitors.* Scottsdale partnered with ride-share companies Uber, Lyft and SuperShuttle/ExecuCar to offer discounted rates to visiting travelers during this trial program. The post notes: "According to consumer research, travelers believe Scottsdale provides fewer tourist transportation options than competitive destinations including … Phoenix."

The post states that a targeted ride share program offers a better use of tax dollars than other transportation options. The article quotes, "The city investigated several options, such as scheduled trolley service and rental car shuttles, for providing direct connection between Scottsdale hotels and Phoenix Sky Harbor International Airport. However, these generalized service concepts were dismissed as too expensive. A service focused specifically on visitors and tourist destinations using hotel bed tax revenue made the most sense economically."

The post also notes: "the program has the potential to alleviate parking issues in downtown Scottsdale."

Additionally, Turo, founded in 2009 and headquartered in San Francisco, is a car sharing marketplace where local car owners provide travelers with the perfect vehicle for their next adventure. The venture now operates in over 5,500 cities in North America and has facilitated over 1 million rental days to date. Choose Scottsdale reports that "Turo chose Scottsdale for it first expansion outside of San Francisco because of the region's existing talent and to bolster its success in one of its biggest markets." The post also quotes Mayor Lane, who said, in response to the announcement: "Innovation and technology are key drivers in Scottsdale's economic growth and we are excited to see Turo at the forefront of peer-to-peer car sharing. Their decision to expand operations and make additional investment is a testament to the positive business environment we have created in Scottsdale."

This brief summary of interconnected articles on the topic of parking needs in the news is by no means comprehensive, but does serve to point to several important issues to consider when assessing hotel parking needs as part of the continued redevelopment in Old Town Scottsdale. See **Appendix I** for the articles referenced in this section.

5.6. Conclusion

With the goal of understanding current parking demands of hotels located in urban areas, trends both locally and nationally were evaluated

Local – W Hotel Data

The W Hotel is located between the proposed City Center and Maya Hotel sites. Daily overnight parking transaction totals were analyzed for four years, 2016 through 2019. The maximum parking reduced by 23.7% over the course of the four year for an **average annual drop of nearly 8% per year**. The most recent year showed a maximum occupancy of **0.43 parking stalls per available guest room**.

Local – Parking Demand Data Collection

Three independent parking demand data collection efforts were conducted at three Old Town Scottsdale hotel developments. All three developments were located within walking and biking distance to nearby amenities such as coffee shops, restaurants, retail/shopping, etc. **The identities are not disclosed to protect the privacy of these hotels.**

- **Old Town Scottsdale Hotel A**
  Parking demand data was collected at Old Town Scottsdale Hotel A in 2018. The peak parking demand for Old Town Scottsdale Hotel A is **0.44 parking stalls per available hotel room**. Applying the average annual parking reduction experienced at the W Hotel to Old Town Scottsdale Hotel A would result in **0.37 occupied parking stalls per available room**.

- **Old Town Scottsdale Hotel B**
  Parking demand data was collected at Old Town Scottsdale Hotel B in 2018. The peak parking demand for Old Town Scottsdale Hotel B is **0.59 parking stalls per available hotel room**. This data was collected when the hotel reported a 91.8% room occupancy. Applying the average annual parking reduction experienced at the W Hotel to Old Town Scottsdale Hotel B would result in **0.49 occupied parking stalls per available room**.

- **Old Town Scottsdale Hotel C**
  Parking demand data was collected at Old Town Scottsdale Hotel C in 2020. The peak parking demand for Old Town Scottsdale Hotel C is **0.65 parking stalls per available hotel room**. This data was collected when the hotel reported a 100% room occupancy.

Local – Experience Scottsdale Data

Experience Scottsdale conducted a survey of Old Town Scottsdale hotel. Based on the survey, 89% of the hotel need one parking for every two or three rooms. Using the higher of rate results in **0.5 parking stalls per available guest room**. Applying the average annual parking reduction experienced at the W Hotel would result in **0.42 occupied parking stalls per available room**.

National – Ace Parking Analysis

Ace Parking provided monthly parking data for more than 80 hotels for the year 2017. The data included hotels from across the United States, ranging from a 35 to a 1,628 guest room hotel, from ALoft San Francisco to The Phoenician in Phoenix. A detailed parking analysis was conducted to determine the parking demand of these eighty plus hotels.

The data showed that on the highest day (Saturday) of each month none of the hotels exceed 0.8 parking stalls per total number of guest rooms. In 2017 the 0.8 parking stalls per total number of guest rooms accommodates the parking demand of the eighty plus hotels 100% of the time. Applying the average annual parking reduction experienced at the W Hotel to the 2017 Ace data results in a maximum parking demand of **0.61 occupied parking stalls per available room**.

National – Parking Trends

There is a great deal of recent information in various publications regarding parking needs. A recent (February 24, 2018) article found on **Fortune.com** reports that Ace Parking CEO John Baumgardner says that demand for parking in San Diego hotels has dropped. The article states: "Even back in 2015, cities were already relaxing zoning requirements that set minimum parking allotments, and there are now even more signs that city planners are thinking differently about parking."

Additionally, the growing popularity of rideshare services such as Uber and Lyft, and bikeshare services, all contribute to reducing the reliance on personal vehicles, and thereby reducing parking demand.

Conclusion

Evaluating the four most recent years of parking data at the W Hotel showed parking demand drops year after year for an 8% average drop annually. Analyzing local parking data collected at four nearby hotels during peak occupancy periods results in a peak parking demand range between 0.43 and 0.65. Experience Scottsdale Old Town hotel surveys further confirms this range. Additionally, national parking data at more than 80 hotels was evaluated. Applying the annual reduction experienced at the W Hotel, none of the 80 hotels would exceed a parking demand of 0.61 parking stall per available hotel room.

As mentioned previously, the growing popularity of rideshare services such as Uber and Lyft, and bikeshare services, has disrupted the hotel parking demand which has been trending downward year after year.

As previously mentioned, as a general engineering practice, infrastructure is not built to accommodate absolute peak demands. There is a balance between building-out adequate infrastructure for a reasonable demand level. Empty private parking stalls do not serve the interest of the community, development, the City of Scottsdale or the public at-large.

Therefore, The Scottsdale Collection development would provide sufficient parking utilizing a rate of 0.65 parking stalls per available hotel room. However, as a conservative approach, a previously accepted rate of 0.80 was utilized to calculate the parking demand.

6. City Center and Mint Parking Calculations

As shown in **Section 4** and **Section 5**, the recommended parking supply ratios for The Scottsdale Collection are as follows:

- Multi-family development   1.10 per bedroom
- Hotel   0.80 per guest room

The Scottsdale Collection proposes retail and restaurant uses at the Civic Center and the Mint sites. *Table 9.103.B* entitled *Schedule of Parking Requirements in the Downtown Area* within the *City of Scottsdale Code of Ordinances* provides the general parking requirements. See **Appendix J**. The following categories and vehicle parking ratio minimums are relevant to the proposed retail/restaurant portions of The Scottsdale Collection development:

- Mixed-Use Developments
  - Nonresidential area   1 per 350 sf of gross floor area (GFA)

The City Center and Mint are both mixed-use developments where the City of Scottsdale Code of Ordinances provides shared use parking calculations. *Table 9.104.A* entitled *Schedule of Shared Parking Calculations* within the *City of Scottsdale Code of Ordinances* provides shared use parking requirements for seven land use categories based upon a time of day. Residential, restaurant, retail, and office land uses are among these categories. See **Appendix J**. See **Table 8** for the parking percentages for the four land uses broken down by weekday and weekend and hours of the day.

Table 8 – Scottsdale Shared Parking Percentages

General Land Use Classification	Weekday			Weekend		
	12 am - 7 am	7 am - 6 pm	6 pm - 12 am	12 am - 7 am	7 am - 6 pm	6 pm - 12 am
Residential	100%	55%	85%	100%	65%	75%
Restauratant and Bars	50%	70%	100%	45%	70%	100%
Retail	0%	100%	80%	0%	100%	60%
Hotel	100%	65%	90%	100%	65%	80%

Specific breakdown of the land uses retail and restaurants uses have not yet been determined for the proposed City Center and Mint developments. Therefore, for the nonresidential land uses, it is assumed to be 50% restaurant use and 50% retail uses.

6.1. Multi-Family Parking: City Code vs. Recommended Rate

As previously mentioned, the recommended parking supply rate for the multi-family components of The Scottsdale Collection is 1.10 parking stalls <u>per bedroom</u>.

Using the recommended rate, the following parking supply rates are shown below for the specific units:

- Multi-family development
  - One-bedroom unit   1.1 stalls per unit
  - Two-bedroom unit   2.2 stalls per unit

A comparison of the recommended rates to the parking requirement rates provided in *Table 9.103.B* entitled *Schedule of Parking Requirements in the Downtown Area* within the *City of Scottsdale Code of Ordinances* is shown in **Table 9** below.

Table 9 – Multi-Family Parking Rate Comparison

		City Code (Table 9.103.B.) Stalls/Unit	Scottsdale Collection Recommended Rates Stalls/Unit
Dwellings, Multiple-Family	One-Bedroom Unit	1.0	1.1
	Two-Bedroom Unit	2.0	2.2

As shown in **Table 9**, the recommended parking supply rates for the multi-family component of The Scottsdale Collection development are 10% higher than the City of Scottsdale's parking requirements for multi-family developments.

Ultimately, this additional 10% over Scottsdale Code ratio provides an additional stall for every 10 one-bedroom units, and an additional stall for every 5 two-bedroom units. For The Scottsdale Collection, where the assumption is a 50/50 split between one and two-bedroom units, results in **an additional stall for every 7.5 units**.

6.2. City Center

The proposed City Center development has three (3) possible options for development:

- Option 1
    Hotel   214 rooms
    Multi-Family Residential   106 units *(53 one-bedroom, 53 two-bedroom)*
    Retail/Restaurant   41,109 square feet

- Option 2
  Multi-Family Residential   237 units *(118 one-bedroom, 119 two-bedroom)*
  Retail/Restaurant   46,887 square feet

- Option 3
  Hotel   449 rooms
  Retail/Restaurant   46,887 square feet

Applying the maximum recommended multi-family and hotel parking ratios along with the City of Scottsdale's parking requirement for the nonresidential component of mixed-use development to the three (3) possible options for the City Center results in the following:

Table 10 – City Center Parking Calculations

	Use	Rate			Quantity	Units	Parking Stalls
Option 1	Dwellings, Multiple-Family	1.10	Per	each bedroom	159	Bedrooms	175
	Hotel	0.80	Per	each guest room	214	Rooms	172
	Non-Residential Area	1	Per	350 SF GFA	41,109	Square Feet	118
				Option 1 Total			**465**
Option 2	Dwellings, Multiple-Family	1.10	Per	each bedroom	356	Bedrooms	392
	Non-Residential Area	1	Per	350 SF GFA	46,887	Square Feet	134
				Option 2 Total			**526**
Option 3	Hotel	0.80	Per	each guest room	449	Rooms	360
	Non-Residential Area	1	Per	350 SF GFA	46,887	Square Feet	134
				Option 3 Total			**494**

Applying the percentages, shown in **Table 8** to the parking calculations for the City Center, shown in results in **Table 10**, results in the following shared parking calculations:

Table 11 – City Center: Option 1 Parking Calculations

General Land Use Classification	Parking Required	Weekday			Weekend		
		12 am - 7 am	7 am - 6 pm	6 pm to 12 am	12 am - 7 am	7 am - 6 pm	6 pm to 12 am
Residential	175	175	96	149	175	114	131
Restauratant and Bars	59	30	41	59	27	41	59
Retail	59	0	59	47	0	59	35
Hotel	172	172	112	155	172	112	138
Total	465	377	308	**410**	374	326	363
Difference From Provided	56	144	213	111	147	195	158
% Difference	12.0%	38.2%	69.2%	27.1%	39.3%	59.8%	43.5%

Table 12 – City Center: Option 2 Parking Calculations

General Land Use Classification	Parking Required	Weekday			Weekend		
		12 am - 7 am	7 am - 6 pm	6 pm to 12 am	12 am - 7 am	7 am - 6 pm	6 pm to 12 am
Residential	392	392	216	333	392	255	294
Restauratant and Bars	67	34	47	67	30	47	67
Retail	67	0	67	54	0	67	41
Total	526	426	330	**454**	422	369	402
Difference From Provided	-5	95	191	67	99	152	119
% Difference	-1.0%	22.3%	57.9%	14.8%	23.5%	41.2%	29.6%

Table 13 – City Center: Option 3 Parking Calculations

General Land Use Classification	Parking Required	Weekday			Weekend		
		12 am - 7 am	7 am - 6 pm	6 pm to 12 am	12 am - 7 am	7 am - 6 pm	6 pm to 12 am
Restauratant and Bars	67	34	47	67	30	47	67
Retail	67	0	67	54	0	67	40
Hotel	360	360	234	324	360	234	288
Total	494	394	348	**445**	390	348	395
Difference From Provided	27	127	173	76	131	173	126
% Difference	5.5%	32.2%	49.7%	17.1%	33.6%	49.7%	31.9%

Using the recommended parking ratios for the multi-family and hotel land uses, paired with City of Scottsdale shared parking calculations for mixed use developments, the City Center parking demand at a <u>maximum</u> would fall between 410 and 454 parking stalls depending on the site plan

option selected. With 521 proposed parking stalls provided for the proposed City Center development, the three (3) options results in a surplus between 67 (14.8%) and 111 (27.1%) parking stalls.

6.3. The Mint

The proposed Mint development has two (2) possible options for development:

- Option 1
  - Multi-Family Residential   62 units *(31 one-bedroom, 31 two-bedroom)*
  - Retail/Restaurant   27,561 square feet

- Option 2
  - Hotel   116 rooms
  - Retail/Restaurant   28,016 square feet

Applying the maximum recommended multi-family and hotel parking ratios along with the City of Scottsdale's parking requirement for the nonresidential component of mixed-use development to the two (2) possible options for the Mint results in the following:

Table 14 – Mint Parking Calculations

	Use	Rate				Quantity	Units	Parking Stalls
Option 1	Dwellings, Multiple-Family	1.10	Per	each bedroom		93	Bedrooms	103
	Non-Residential Area	1	Per	350	SF GFA	27,561	Square Feet	79
							Option 1 Total	**182**
Option 2	Hotel	0.80	Per	each guest room		116	Rooms	93
	Non-Residential Area	1	Per	350	SF GFA	28,016	Square Feet	81
							Option 2 Total	**174**

Applying the percentages, shown in **Table 8** to the parking calculations for the Mint, shown in results in **Table 14**, results in the following shared parking calculations:

Table 15 – Mint: Option 1 Parking Calculations

General Land Use Classification	Parking Required	Weekday			Weekend		
		12 am - 7 am	7 am - 6 pm	6 pm to 12 am	12 am - 7 am	7 am - 6 pm	6 pm to 12 am
Residential	103	103	57	88	103	67	77
Restauratant and Bars	40	20	28	40	18	28	40
Retail	39	0	39	32	0	39	24
Total	182	123	124	160	121	134	141
Difference From Provided	60	119	118	82	121	108	101
% Difference	33.0%	96.7%	95.2%	51.3%	100.0%	80.6%	71.6%

Table 16 – Mint: Option 2 Parking Calculations

General Land Use Classification	Parking Required	Weekday			Weekend		
		12 am - 7 am	7 am - 6 pm	6 pm to 12 am	12 am - 7 am	7 am - 6 pm	6 pm to 12 am
Restauratant and Bars	41	21	29	41	18	29	41
Retail	40	0	40	32	0	40	24
Hotel	93	93	60	84	93	60	74
Total	174	114	129	157	111	129	139
Difference From Provided	68	128	113	85	131	113	103
% Difference	39.1%	112.3%	87.6%	54.1%	118.0%	87.6%	74.1%

Using the recommended <u>maximum</u> parking ratios for the multi-family and hotel land uses, paired with City of Scottsdale shared parking calculations for mixed use developments, the Mint parking demand at a <u>maximum</u> would fall between 157 and 160 parking stalls depending on the site plan option selected. With 242 proposed parking stalls provided for the proposed Mint development, the two (2) options results in a surplus between 82 (51.3%) and 85 (54.1%) parking stalls.

7. Hotel Maya

Hotel Maya will consist of 164 hotel rooms and will always operate with a valet service. The valet will be located at the entrance to the site, along Buckboard Trail. The valet service will park guest vehicles in nearby shared parking garages. The Hotel Maya will have shared parking agreements with the nearby W Hotel, which is also owned and operated by Stockdale Capital Properties, LLC.

Parking demand calculation including the maximum recommended hotel parking ratio of 0.80 parking stalls per available room is shown below:

Table 17 – Hotel Maya Parking Calculation

Use	Rate			Quantity	Units	Parking Stalls
Hotel	0.80	Per	each guest room	164	Rooms	132
					Total	**132**

For Hotel Maya, 132 parking stalls is anticipated to provide adequate parking stalls to exceed the **maximum** parking demand at any given time.

W Hotel

The W Hotel is located immediately adjacent just west of the proposed Hotel Maya. As described in **Section 5.1**, parking demand at the W Hotel has been trending downwards over the past four years. The maximum overnight parking demand was 74 parking stalls. As previously mentioned, 30 parking stalls are dedicated for employee use. Conservatively assuming all 30 parking stalls are occupied, this results in a total of 104 parking stalls. With 218 parking stalls, **during peak times there is a surplus of 114 parking stalls**.

Additionally, directly south of the proposed Hotel Maya will be a flexible plaza, which will be able to accommodate an additional 22 parking stalls.

The surplus of parking at the W Hotel and the flexible plaza accommodates the maximum Hotel Maya parking demand of 132 parking stalls 100% of the time with an excess of 4 parking stalls.

8. Recommendations & Conclusions

The goal of this Parking Master Plan is to define the parking needs for The Scottsdale Collection development without providing an overabundance of parking.

8.1. Multi-Family

Evaluating data collected at three multi-family residential development located in the Scottsdale, analyzing census data of vehicle ownership for the area containing The Scottsdale Collection development, examining average peak parking occupancy rates reported in two national publications, and factoring in recent parking trends, the parking demand falls within a range of 0.75 to 1.09 parking stalls per bedroom.

As a general engineering practice, infrastructure is not built to accommodate absolute peak demands. There is a balance between building-out adequate infrastructure for a reasonable demand level. Empty private parking stalls do not serve the interest of the community, development, the City of Scottsdale or the public at-large.

Therefore, for The Scottsdale Collection development, it is recommended that 1.10 parking stalls per bedroom be provided. It should be noted, census data of the area along with national data supports even lower parking stalls per unit ratios.

8.2. Hotel

Evaluating the four most recent years of parking data at the W Hotel showed parking demand drops year after year for an 8% average drop annually. Analyzing local parking data collected at four nearby hotels during peak occupancy periods results in a peak parking demand range between 0.43 and 0.65. Experience Scottsdale Old Town hotel surveys further confirms this range. Additionally, national parking data at more than 80 hotels was evaluated. Applying the annual reduction experienced at the W Hotel, none of the 80 hotels would exceed a parking demand of 0.61 parking stall per available hotel room.

As mentioned previously, the growing popularity of rideshare services such as Uber and Lyft, and bikeshare services, has disrupted the hotel parking demand which has been trending downward year after year.

As previously mentioned, as a general engineering practice, infrastructure is not built to accommodate absolute peak demands. There is a balance between building-out adequate infrastructure for a reasonable demand level. Empty private parking stalls do not serve the interest of the community, development, the City of Scottsdale or the public at-large.

Therefore, The Scottsdale Collection development would provide sufficient parking utilizing a rate of 0.65 parking stalls per available hotel room. However, as a conservative approach, a previously accepted rate of 0.80 was utilized to calculate the parking demand.

8.3. City Center and Mint Parking Calculations

Using the recommended parking ratios for the multi-family and hotel land uses, paired with City of Scottsdale shared parking calculations for mixed use developments, the City Center parking demand at a maximum would fall between 410 and 454 parking stalls depending on the site plan option selected. **With 521 proposed parking stalls provided for the proposed City Center development, the three (3) options results in a surplus between 67 (14.8%) and 111 (27.1%) parking stalls.**

Additionally, using the recommended maximum parking ratios for the multi-family and hotel land uses, paired with City of Scottsdale shared parking calculations for mixed use developments, the Mint parking demand at a maximum would fall between 157 and 160 parking stalls depending on the site plan option selected. **With 242 proposed parking stalls provided for the proposed Mint development, the two (2) options results in a surplus between 82 (51.3%) and 85 (54.1%) parking stalls.**

8.4. Hotel Maya Parking Calculations

For Hotel Maya, 132 parking stalls is anticipated to provide adequate parking stalls to exceed the maximum parking demand. **During peak parking demand times the W Hotel, located immediately adjacent just west of the proposed Hotel Maya, has a surplus of 114 parking stalls. Additionally, the proposed flexible plaza located directly south of the proposed Hotel Maya can accommodate an additional 22 parking stalls. This surplus accommodates the proposed Hotel Maya's maximum parking demand 100% of the time, with an excess of 4 parking stalls.**

In conclusion, the proposed parking provided at the City Center and Mint will meet and exceed the parking demand for the two developments. For Hotel Maya, the parking provided with the surplus parking at the adjacent W Hotel will sufficiently meet and exceed the maximum parking demand of both hotels occurring simultaneously.

Appendix A – Proposed Site Plan

A

CAMELBACK ROAD

CITY CENTER

THE MINT

THE MAYA
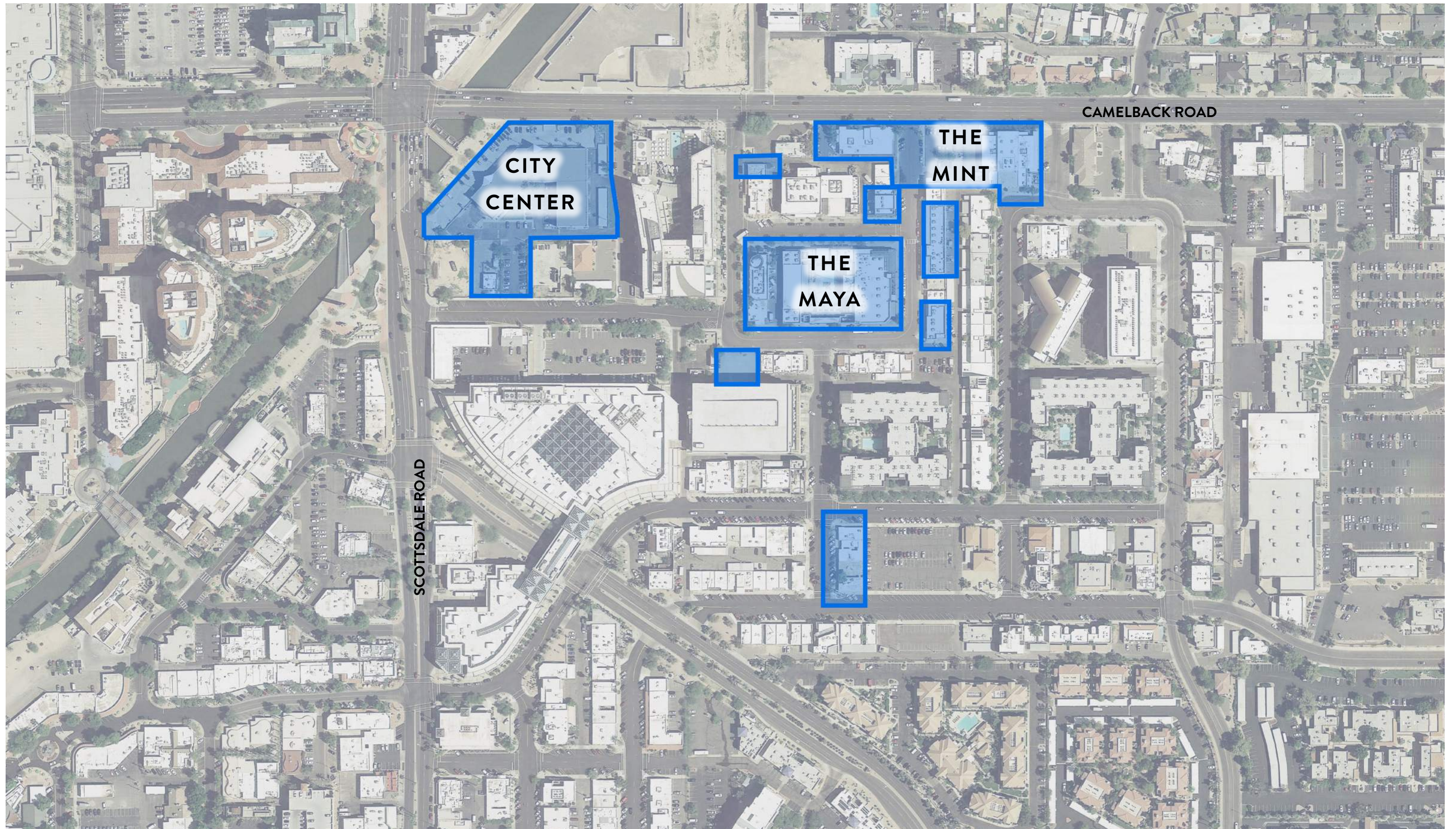
SCOTTSDALE ROAD

PROPOSED 10.25 ACRES OF DEVELOPMENT

*Appendix B – Multi-Family
Parking Occupancy Data*

B

Nordstrom Parking Garage (Scottsdale) Parking Study

April 2, 2020

Parking Usage Data Collection

Date	Time	Stalls Occupied
4/2/2020	12:00 AM	0
	12:30 AM	0
	1:00 AM	0
	1:30 AM	0
	2:00 AM	0
	2:30 AM	0
	3:00 AM	0
	3:30 AM	0
	4:00 AM	0
	4:30 AM	0
	5:00 AM	0
	5:30 AM	0
	6:00 AM	0

Nordstrom Parking Garage (Scottsdale) Parking Study

April 4, 2020

Parking Usage Data Collection

Date	Time	Stalls Occupied
4/4/2020	12:00 AM	0
	12:30 AM	0
	1:00 AM	0
	1:30 AM	0
	2:00 AM	0
	2:30 AM	0
	3:00 AM	0
	3:30 AM	0
	4:00 AM	0
	4:30 AM	0
	5:00 AM	0
	5:30 AM	0
	6:00 AM	0

Nordstrom Parking Marshall Way (Scottsdale) Parking Study

April 2, 2020

Parking Usage Data Collection

Date	Time	Stalls Occupied
4/2/2020	12:00 AM	3
	12:30 AM	2
	1:00 AM	2
	1:30 AM	2
	2:00 AM	2
	2:30 AM	0
	3:00 AM	0
	3:30 AM	0
	4:00 AM	0
	4:30 AM	0
	5:00 AM	0
	5:30 AM	0
	6:00 AM	0

Nordstrom Parking Marshall Way (Scottsdale) Parking Study

April 4, 2020

Parking Usage Data Collection

Date	Time	Stalls Occupied
4/4/2020	12:00 AM	0
	12:30 AM	0
	1:00 AM	0
	1:30 AM	0
	2:00 AM	0
	2:30 AM	0
	3:00 AM	0
	3:30 AM	0
	4:00 AM	0
	4:30 AM	0
	5:00 AM	0
	5:30 AM	0
	6:00 AM	0

Dwell Apartment Homes Parking Study

March 4, 2020

Parking Usage Data Collection

Date	Time	Stalls Occupied
3/4/2020	12:00 AM	198
	12:30 AM	198
	1:00 AM	205
	1:30 AM	201
	2:00 AM	203
	2:30 AM	205
	3:00 AM	203
	3:30 AM	203
	4:00 AM	203
	4:30 AM	193
	5:00 AM	193
	5:30 AM	190
	6:00 AM	184

Dwell Apartment Homes Parking Study

March 7, 2020

Parking Usage Data Collection

Date	Time	Stalls Occupied
3/7/2020	12:00 AM	194
	12:30 AM	195
	1:00 AM	195
	1:30 AM	195
	2:00 AM	199
	2:30 AM	198
	3:00 AM	200
	3:30 AM	199
	4:00 AM	205
	4:30 AM	196
	5:00 AM	197
	5:30 AM	193
	6:00 AM	192

Las Aguas Apartments Parking Study

April 1, 2020

Parking Usage Data Collection

Date	Time	Stalls Occupied
4/1/2020	12:00 AM	180
	12:30 AM	181
	1:00 AM	181
	1:30 AM	181
	2:00 AM	181
	2:30 AM	181
	3:00 AM	181
	3:30 AM	181
	4:00 AM	181
	4:30 AM	181
	5:00 AM	181
	5:30 AM	180
	6:00 AM	178

Total Stalls: 224

Las Aguas Apartments Parking Study

April 4, 2020

Parking Usage Data Collection

Date	Time	Stalls Occupied
4/4/2020	12:00 AM	181
	12:30 AM	181
	1:00 AM	183
	1:30 AM	182
	2:00 AM	182
	2:30 AM	182
	3:00 AM	183
	3:30 AM	183
	4:00 AM	184
	4:30 AM	184
	5:00 AM	183
	5:30 AM	181
	6:00 AM	178

Appendix C – MAG Census Bureau Data

C

Block Group 2, Census Tract 2172.01, Maricopa County, Arizona has a population of **1,374** with a minority* population of **408** or **29.69%**.

Block Group 2, Census Tract 2172.01, Maricopa County, Arizona has **789** total households.

About the U.S. Census Bureau's 2014-2018 American Community Survey 5 year Estimates

The American Community Survey (ACS) is a nationwide survey that uses continuous, multi-year sampling to produce estimates for a variety of geographical areas, the smallest being the Census Block Group. MAG uses the 5-year estimates because they provide increased statistical reliability for less populated areas and small population groups. ACS is a sample, meaning that it is not a full census of the population. For the 5 year estimates, surveys are collected from a sample population over the 5 year period. These surveys are then used to create estimates for the whole population. And, because it is an estimate of the whole population, there is a degree of uncertainty in the results. This degree of uncertainty is reflected in the margins of error that are calculated and reported along with the results of the survey. The margins of error are calculated at the 90 percent confidence level, meaning that users of the data can be 90 percent confident that the range reflected in the margin of error contains the true value. The margins of error are not reported on this web site, but are available from the Census at http://factfinder.census.gov/or are available upon request from MAG. More information on the methodology of the American Community Survey is available at http://www.census.gov/acs/.

* Minority population is defined as the population that is of any race other than non-hispanic white.

Age

American Community Survey 2014-2018 5yr Estimates

Age

Name	Total	Percent
Total	1,374	N/A
Under 5 years	41	3.0 %
5 to 9 years	74	5.4 %
10 to 14 years	0	0.0 %
15 to 19 years	48	3.5 %
20 to 24 years	317	23.1 %
25 to 34 years	426	31.0 %
35 to 44 years	107	7.8 %
45 to 54 years	154	11.2 %
55 to 59 years	49	3.6 %
60 to 64 years	38	2.8 %
65 to 74 years	77	5.6 %
75 to 84 years	43	3.1 %
85 years and over	0	0.0 %

Universe: Total Population

Source: U.S. Census Bureau American Community Survey 2014 - 2018
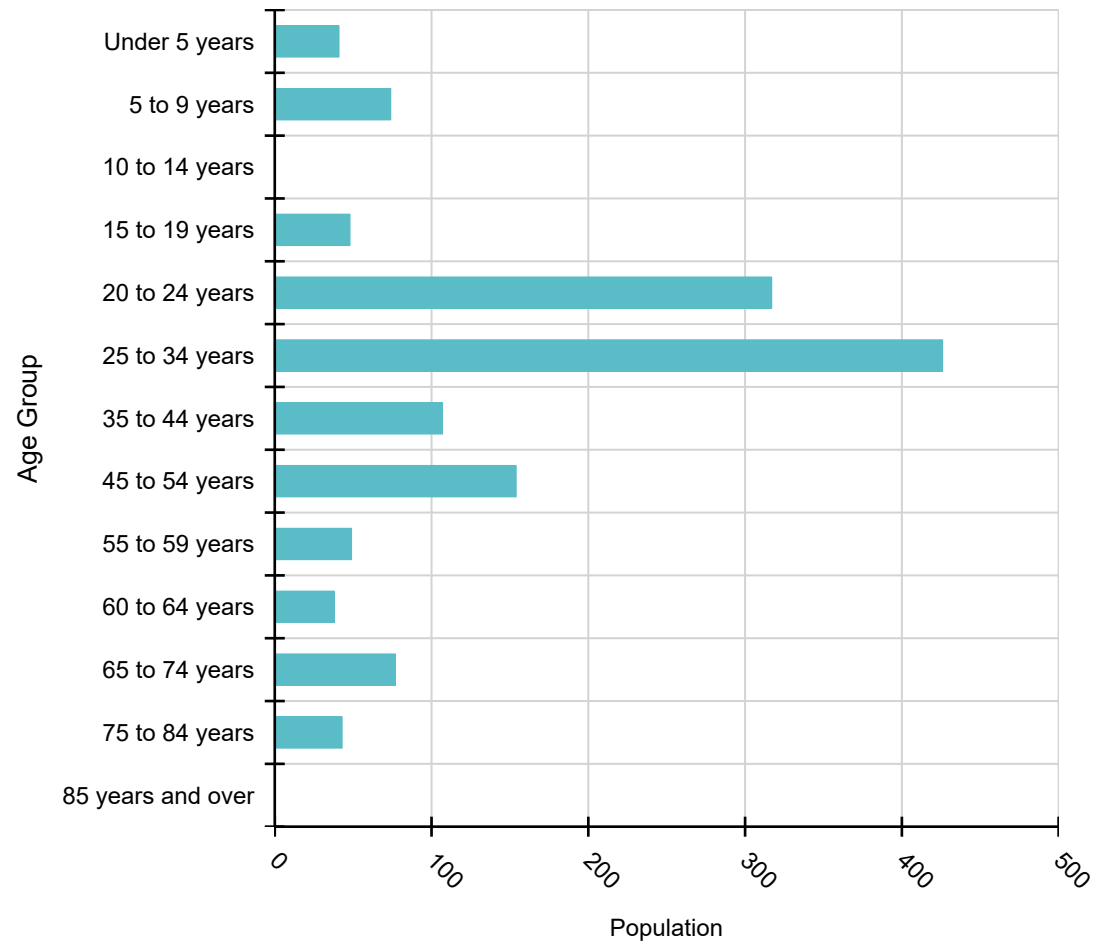
Race and Ethnicity

American Community Survey 2014-2018 5yr Estimates

Race and Ethnicity

Name	Total	Percent
Total	1,374	N/A
Hispanic	312	22.7 %
White, Non-Hispanic	966	70.3 %
Black, Non-Hispanic	28	2.0 %
Native American, Non-Hispanic	0	0.0 %
Asian, Non-Hispanic	25	1.8 %
Pacific Islander, Non-Hispanic	0	0.0 %
Two or More, Non-Hispanic	43	3.1 %
Other Race, Non-Hispanic	0	0.0 %

Universe: Total Population

Legend:
- Hispanic
- White, Non-Hispanic
- Black, Non-Hispanic
- Native American, Non-Hispanic
- Asian, Non-Hispanic
- Two or More, Non-Hispanic
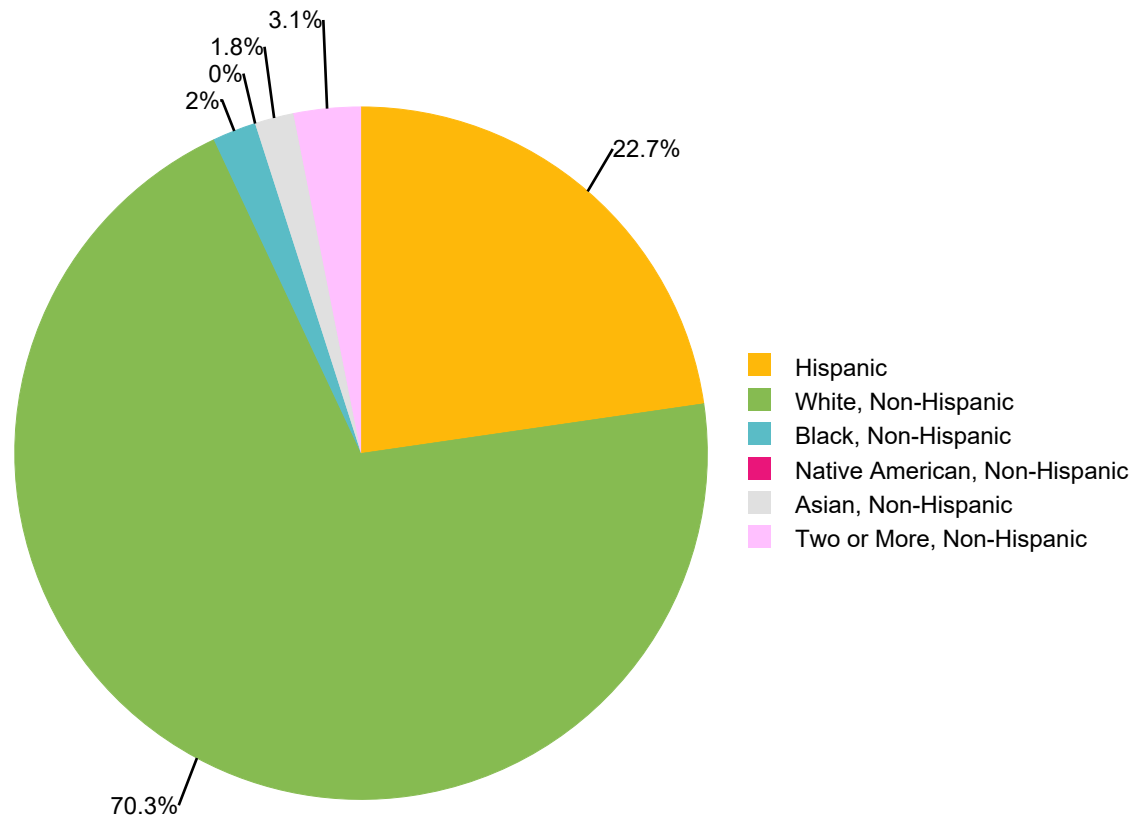
Ability to Speak English / Veterans Status by Age

American Community Survey 2014-2018 5yr Estimates

Ability to Speak English

Name	Total	Percent
Speak Only English	1,051	78.8 %
Speak Other Languages	282	21.2 %
Speak English "very well"	80	N/A
Persons with Limited English Proficiency (LEP)	202	N/A
Speak English "well"	59	N/A
Speak English "not well"	38	N/A
Speak English "not at all"	105	N/A

Veterans Status

Name	Total	Percent
Civilian Population 18 years and over	1,259	N/A
Civilian veterans	40	3.2 %
Male	32	N/A
Female	8	N/A
18 to 34 years	9	22.5 %
35 to 54 years	14	35.0 %
55 to 64 years	0	0.0 %
65 to 74 years	17	42.5 %
75 years and over	0	0.0 %

21.2%
78.8%

- Speak Only English
- Speak Other Languages
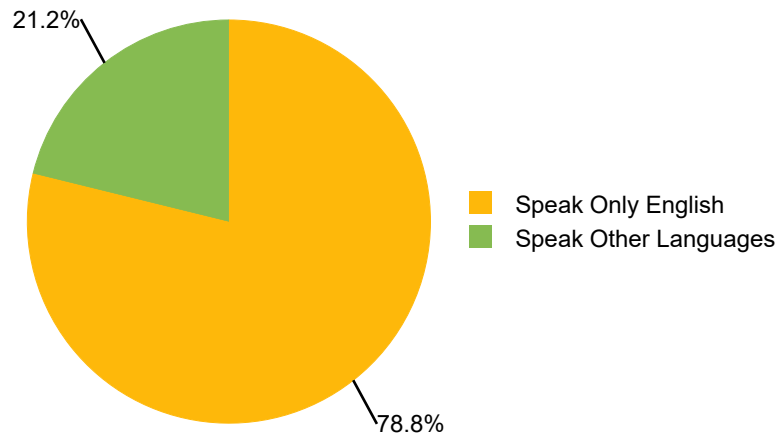
Universe: Population 5 years and over

22.5%
42.5%
35%
0%

- 18 to 34 years
- 35 to 54 years
- 55 to 64 years
- 65 to 74 years
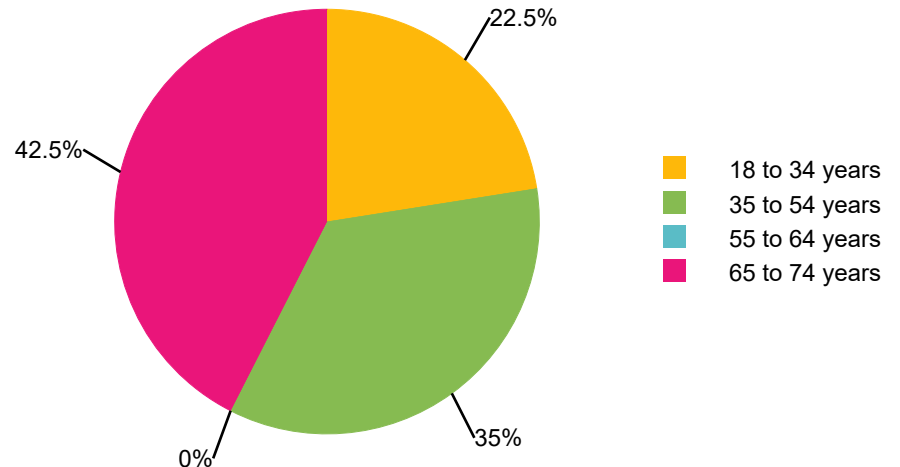
Universe: Civilian Population 18 years and over

Source: U.S. Census Bureau American Community Survey 2014 - 2018

Educational Attainment

ARIZONA COGs & MPOs

American Community Survey 2014-2018 5yr Estimates

Educational Attainment

Name	Total	Percent
Population 25 and over	894	100.0 %
Less than 9th Grade	6	0.7 %
9th-12th, no diploma	83	9.3 %
High School Graduate or Equivalent	136	15.2 %
Some College	186	20.8 %
Associates Degree	45	5.0 %
Bachelors Degree	286	32.0 %
Graduate or Professional Degree	152	17.0 %

Universe: Population Age 25 Years and Over

Pie chart:
- 0.7%
- 9.3%
- 17%
- 15.2%
- 20.8%
- 5%
- 32%

Legend:
- Less than 9th Grade
- 9th-12th, no diploma
- High School Graduate or Equivalent
- Some College
- Associates Degree
- Bachelors Degree
- Graduate or Professional Degree
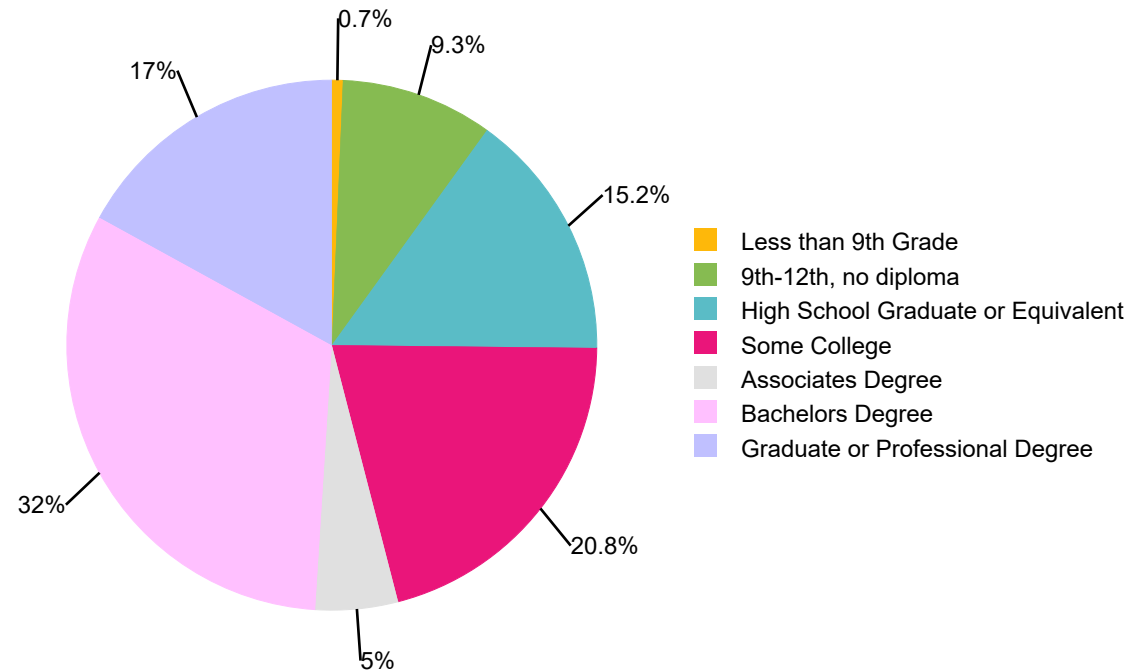
Household Income and Households

American Community Survey 2014-2018 5yr Estimates

Household Income (In 2017 inflation-adjusted dollars)

Name	Total	Percent
Total Households	789	N/A
Median Household Income	$ 61,875	N/A
Less than $10,000	59	7.5 %
$10,000 to $14,999	48	6.1 %
$15,000 to $24,999	56	7.1 %
$25,000 to $34,999	43	5.4 %
$35,000 to $49,999	124	15.7 %
$50,000 to $74,999	168	21.3 %
$75,000 to $99,999	154	19.5 %
$100,000 to $149,999	99	12.5 %
$150,000 to $199,999	24	3.0 %
$200,000 or more	14	1.8 %

Universe: Households

Households

Name	Total	Percent
Total Households	789	N/A
Average Household Size	2	N/A
Family Households (Families)	166	21.0 %
Married-couple family	102	N/A
Female Householder, no husband present	16	N/A
with own children under 18 years	0	N/A
Nonfamily Households	623	79.0 %
Householder living alone	488	N/A

Universe: Households

Source: U.S. Census Bureau American Community Survey 2014 - 2018
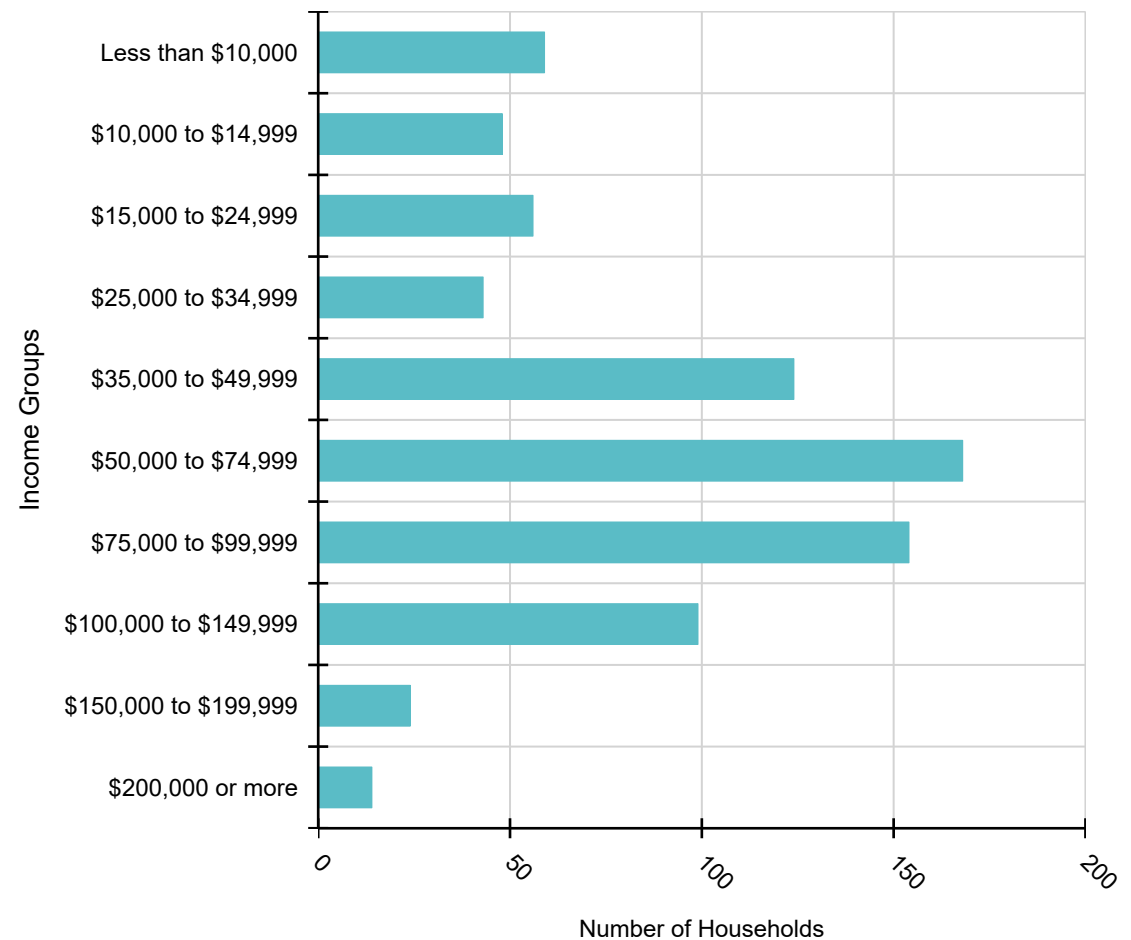
Poverty Status

American Community Survey 2014-2018 5yr Estimates

Poverty Status in the Past 12 Months

Name	Total	Percent
Persons for whom poverty status is determined	1,374	N/A
Persons with income below poverty level	153	11.1 %
Persons with income below 150% of poverty level	267	19.4 %
Persons with income below 200% of poverty level	550	40.0 %

Universe: Persons for whom poverty status is determined

Poverty Status for Families in the Past 12 Months

Name	Total	Percent
Total Families	166	N/A
Families with income below poverty level	25	15.1 %
Married-couple family	25	N/A
with related children under 18 years	0	N/A
Female householder, no husband present	0	N/A
with related children under 18 years	0	N/A
Male householder, no wife present	0	N/A
with related children under 18 years	0	N/A

Universe: Families
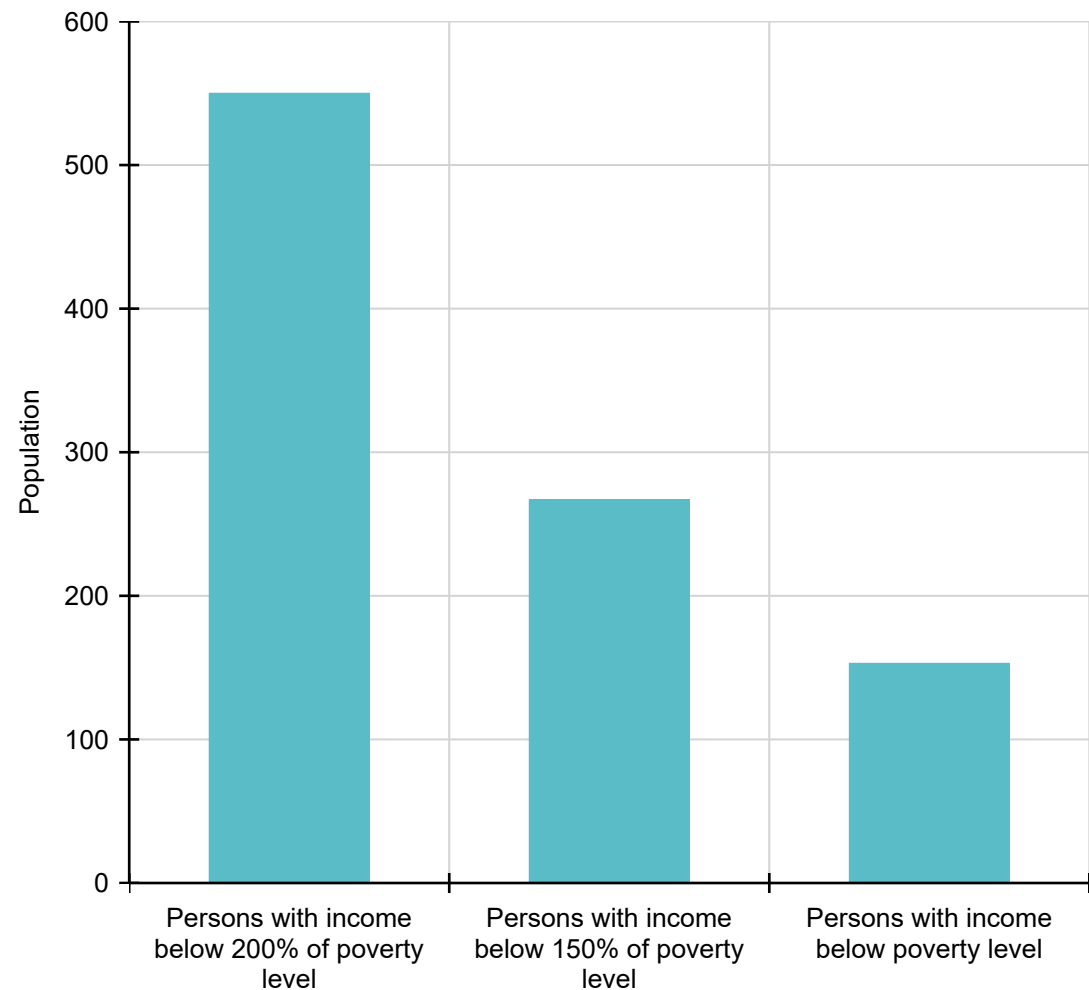
Modes of Transportation

American Community Survey 2014-2018 5yr Estimates

Commuting to Work

Name	Total	Percent
Workers 16 years and over	900	N/A
Car or Truck - drive alone	678	75.3 %
Car or Truck - carpool	58	6.4 %
Public Transportation	23	2.6 %
Bicycle	5	0.6 %
Walked	30	3.3 %
Other means (taxicab, motorcycle, etc.)	0	0.0 %
Worked at home	106	11.8 %

Universe: Workers age 16 years and over

- Car or Truck - drive alone
- Car or Truck - carpool
- Public Transportation
- Bicycle
- Walked
- Other means (taxicab, motorcycle, etc.)
- Worked at home
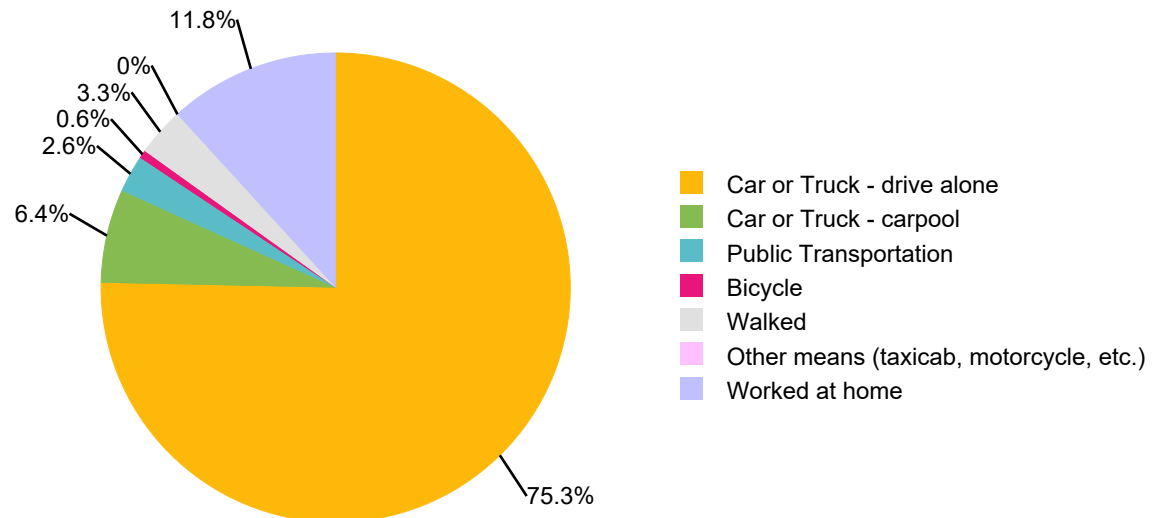
Occupation

American Community Survey 2014-2018 5yr Estimates

Occupation

Name	Total	Percent
Civilian employed population 16 years and over	900	N/A
Management, business, science, and arts occupations	442	49.1 %
Service occupations	124	13.8 %
Sales and office occupations	227	25.2 %
Natural resources, construction, and maintenance occupations	71	7.9 %
Production, transportation, and material moving occupations	36	4.0 %

Universe: Civilian employed population 16 years and over

Legend:
- Management, business, science, and arts occupations
- Service occupations
- Sales and office occupations
- Natural resources, construction, and maintenance occupations
- Production, transportation, and material moving occupations

Pie chart values: 4%, 7.9%, 25.2%, 49.1%, 13.8%
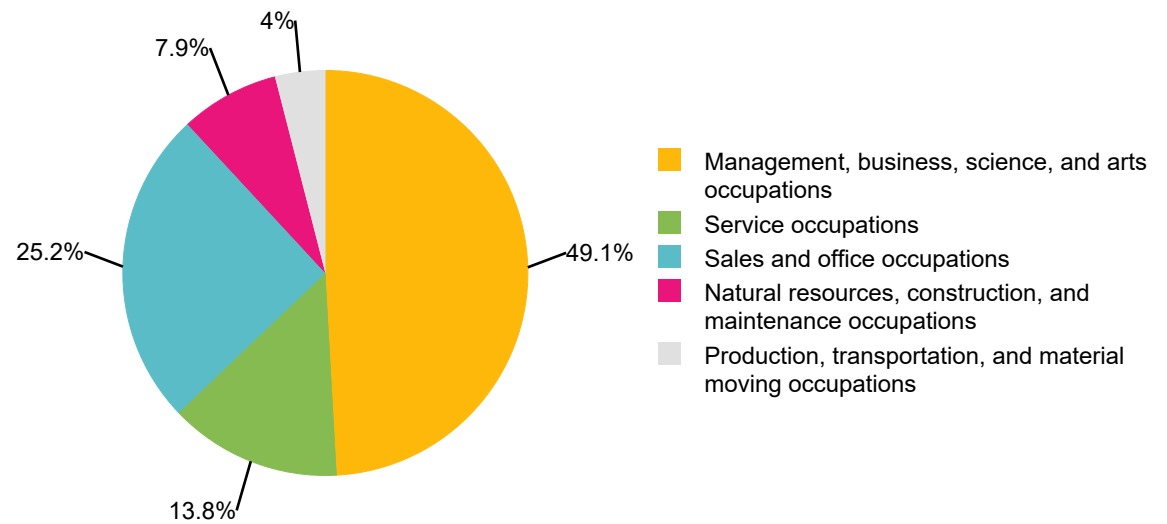
Occupancy, Tenure, Value, and Rent

ARIZONA COGs & MPOs

American Community Survey 2014-2018 5yr Estimates

Housing
Name	Total	Percent	Per Sq Mile
Housing Units	1,011	N/A	2,023.9
Occupied Housing Units	789	78.0 %	1,579.5
Owner-Occupied	111	11.0 %	222.2
Renter-Occupied	678	67.1 %	1,357.3
Vacant Units	222	22.0 %	444.4
Median Housing Value	$ 297,500	N/A	N/A
Median Rent	$ 1,434	N/A	N/A

Universe: Housing Units

Housing
Name	Total	Percent
Total Housing Units	1,011	N/A
1, detached	10	1.0 %
1, attached	4	0.4 %
2 to 9	86	8.5 %
10 or more	911	90.1 %
Mobile Home	0	0.0 %
Boat, RV, van, etc.	0	0.0 %

Universe: Housing Units

11%

22%

67.1%

- Owner-Occupied
- Renter-Occupied
- Vacant Units
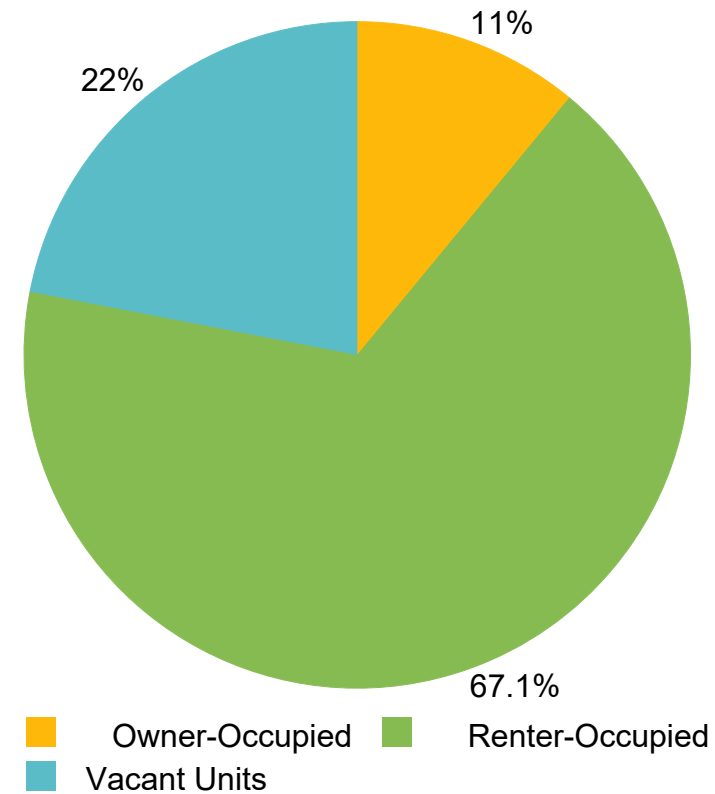
Vehicles Available

American Community Survey 2014-2018 5yr Estimates

Vehicles Available

Name	Total	Percent
Total Occupied Housing Units	789	N/A
No vehicles available	84	10.6 %
One vehicles available	542	68.7 %
Two vehicles available	144	18.3 %
3 or more vehicles available	19	2.4 %

Universe: Occupied Housing Units

Legend:
- No vehicles available
- One vehicles available
- Two vehicles available
- 3 or more vehicles available

Race

ARIZONA COGs & MPOs
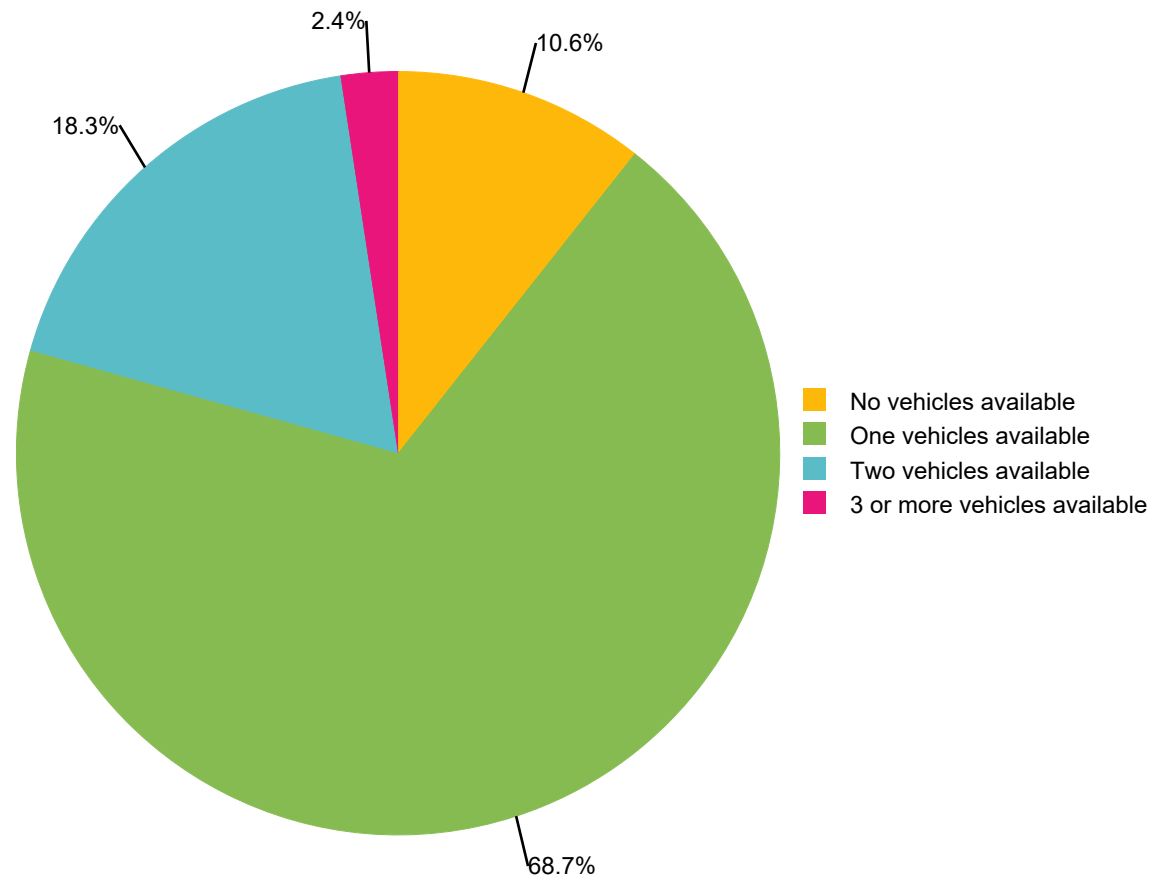
U.S. Census Bureau, 2010 Decennial Census

Race

Name	Total	Percent
Total Population	1,140	N/A
Hispanic	157	13.8 %
White, Non-hispanic	853	74.8 %
Black, Non-Hispanic	28	2.5 %
Native American, Non-Hispanic	23	2.0 %
Asian, Non-Hispanic	50	4.4 %
Pacific Islander, Non-Hispanic	0	0.0 %
Two or More, Non-Hispanic	29	2.5 %
Other Race, Non-Hispanic	0	0.0 %

Universe: Total Population

Pie chart legend:
- Hispanic
- White, Non-hispanic
- Black, Non-Hispanic
- Native American, Non-Hispanic
- Asian, Non-Hispanic
- Pacific Islander, Non-Hispanic
- Two or More, Non-Hispanic

Chart values: 13.8%, 74.8%, 2.5%, 2%, 4.4%, 0%, 2.5%

Source: U.S. Census Bureau, 2010 Decennial Census

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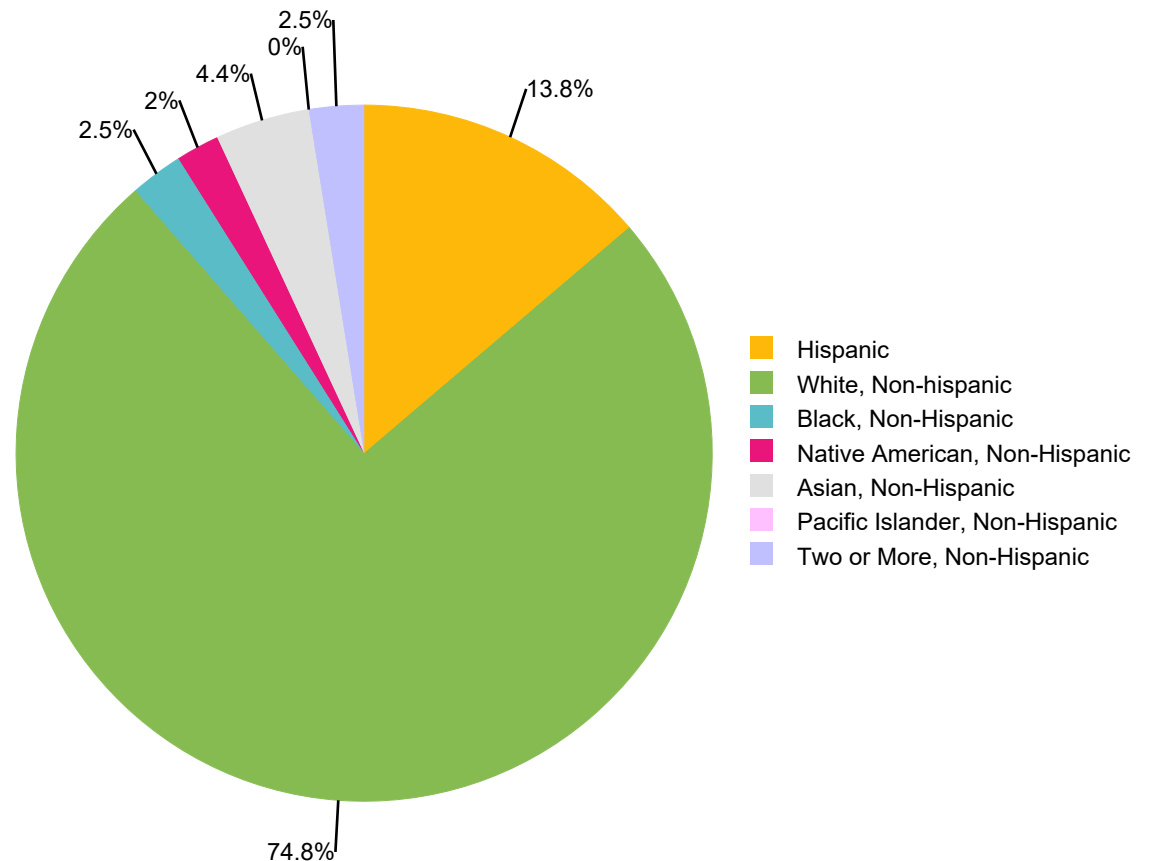
Ethnicity

U.S. Census Bureau, 2010 Decennial Census

Ethnicity		
Name	Total	Percent
Total Population	1,140	N/A
Hispanic	157	13.8 %
Non-Hispanic	983	86.2 %

Universe: Total Population

13.8%

86.2%

■ Hispanic
■ Non-Hispanic

Age
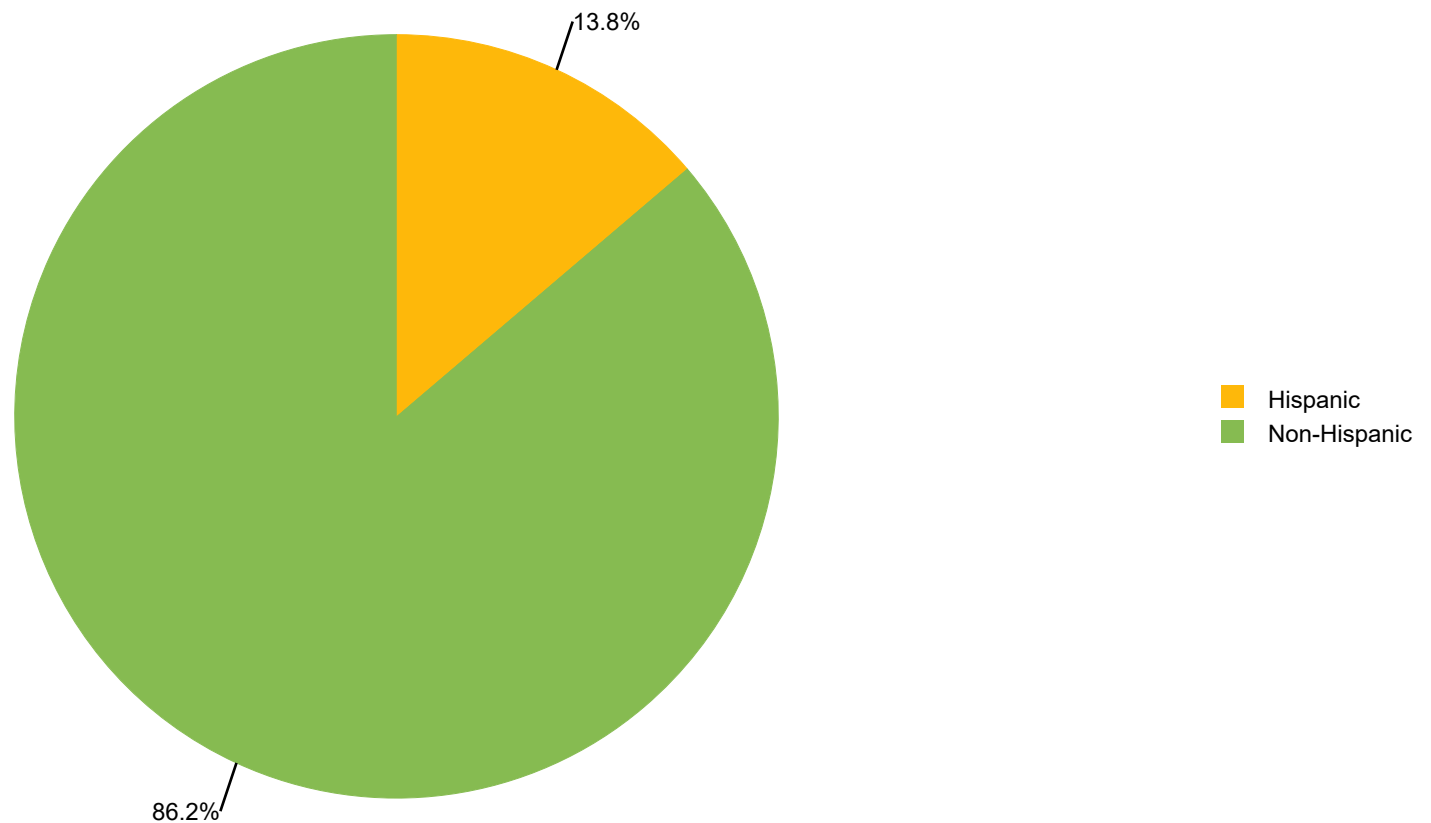
U.S. Census Bureau, 2010 Decennial Census

Age

Name	Total	Percent
Median Age	29	N/A
Under 05	22	1.9 %
5 to 17	54	4.7 %
18 to 34	662	58.1 %
35 to 49	164	14.4 %
50 to 64	111	9.7 %
65 to 84	108	9.5 %
85 and over	19	1.7 %
50 Plus	238	20.9 %
60 Plus	166	14.6 %
65 Plus	127	11.1 %
70 Plus	92	8.1 %
75 Plus	70	6.1 %

Universe: Total Population

Source: U.S. Census Bureau, 2010 Decennial Census

Legal Disclaimer

Appendix D – Multi-Family Parking Trends

D

KENTUCKY AVENUE

220

FREE

PARKING

NEW Y_ AVENU_

PRICE $200

The High Cost of Free Parking

DONALD SHOUP

Updated by the author

Preface

A Progress Report on Parking Reforms

All of us, if we are reasonably comfortable, healthy and safe, owe immense debts to the past. There is no way, of course, to repay the past. We can only repay those debts by making gifts to the future.

— *JANE JACOBS*

Who would have predicted that a 750-page book on parking could be popular enough to reprint as a paperback? One sign that *The High Cost of Free Parking* has attracted a following is a Facebook group for the book with about a thousand members, called the Shoupistas. Although the group sounds radical, the members support market-rate prices for parking, which sounds conservative. Because of this widespread interest across the political spectrum, the American Planning Association is publishing this paperback edition to make the book more affordable, especially for students who are the next generation of city planners.

When the hardback edition was published in 2005, the reviews were, with one unimportant exception, very good.[1] More important than good reviews, several cities have adopted the policies proposed in the book, and the paperback edition offers an opportunity to report on progress made in parking reforms during the past six years. In this preface I will discuss reforms that have taken place in relation to the three basic policies recommended in the book: (1) set the right price for curb parking, (2) return the parking revenue to pay for local public services, and (3) remove minimum parking requirements. (The Afterword on pages 683–709 presents more information about these reforms.)

I hope the progress reported here will convince readers that my policy proposals are not theoretical and idealistic but are instead practical and realistic. The good news about our decades of bad planning for parking is that the damage we have done will be far cheaper to repair than to ignore.

1. SET THE RIGHT PRICE FOR CURB PARKING

Cities should set the right price for curb parking because the wrong prices produce such bad results. Where curb parking is underpriced and overcrowded, a surprising share of traffic can be cruising in search of a place to park. Sixteen studies conducted between 1927 and 2001 found that, on average, 30 percent of the cars in congested traffic were cruising for parking (see Chapter 11). New studies continue to find that many drivers cruise for curb parking like hawks looking for prey. For example, when researchers interviewed drivers who were stopped at traffic signals in New York City, they found that 28 percent of the drivers on one street in Manhattan and 45 percent on a street in Brooklyn were cruising for curb parking.[2]

In another study, observers found the average time to find a curb space on 15 blocks in the Upper West Side of Manhattan was 3.1 minutes and the average cruising distance was 0.37 miles. These findings were used to estimate that cruising for underpriced parking on these 15 blocks alone creates about 366,000 excess vehicle miles of travel and produces 325 tons of CO_2 per year.[3]

Performance Parking Prices

Free curb parking in a congested city gives a small, temporary benefit to a few drivers who happen to be lucky on a particular day, but it creates large social costs for everyone else every day. To manage curb parking and avoid the problems caused by cruising, some cities have begun to adjust their curb parking prices by location and time of day to produce an 85 percent occupancy rate for curb parking, which corresponds to one vacant space on a block with eight curb spaces. The price is too high if many spaces are vacant and too low if no spaces are vacant. But if one or two spaces are vacant on a block and drivers can reliably find open curb spaces at their destinations, the price is just right. We can call this the Goldilocks principle of parking prices.

Although cruising may seem to be an inevitable consequence of living in a crowded city, some drivers believe they have good "parking karma," an uncanny ability to find a curb space when they arrive at a destination. Given the laws of probability, some drivers will be luckier than others in finding a parking spot, and they may interpret this luck as a rare gift rather than pure chance. Setting the right parking prices can give all drivers the gift of good parking karma.

Some cities refer to the policy of setting prices to produce one or two open curb spaces on every block as *performance pricing*. It can

improve performance in three ways. First, curb parking will perform more efficiently. If all but one or two curb spaces are occupied on every block, parking will be well used but also remain readily available for drivers who want to park. Second, the transportation system will perform more efficiently because cruising for curb parking will not congest traffic, waste fuel, pollute the air, and waste drivers' time. Third, the economy will perform more efficiently. In business districts, drivers will park, buy something, and leave promptly, allowing other customers to use the spaces.

SFpark. With a grant from the U.S. Department of Transportation, San Francisco has embarked on an ambitious program, called SF*park*, to get the prices of curb parking right. The city is installing meters that can charge variable prices and sensors that can report the occupancy of each space in real time. The city will thus have information on curb occupancy rates and the ability to adjust curb parking prices in response to the occupancy rates. The city intends to adjust prices once a month, by not more than 50¢ an hour. By nudging prices up or down in a trial-and-error process, the city will seek a structure of prices that vary by time and location throughout the city, yielding one or two open spaces on every block.[4]

The central idea of SF*park* is that you cannot set the right price for curb parking without observing the occupancy. The goal is to set the lowest price that will yield one or two open spaces on every block. Figure P-1 shows that nudging up the price on crowded Block A by enough to shift only one car to less crowded Block B can significantly improve the performance of the transportation system. This shift will eliminate cruising on Block A and take advantage of the empty spaces on Block B. Even if all the curb spaces are occupied on all the nearby blocks, shifting only one car per block from a curb space to nearby off-street parking can also eliminate cruising. Small changes in parking prices and location choices can lead to big improvements in transportation efficiency.

Beyond managing the curb parking supply, SF*park* can depoliticize parking by stating a clear principle for setting the prices for curb spaces: the
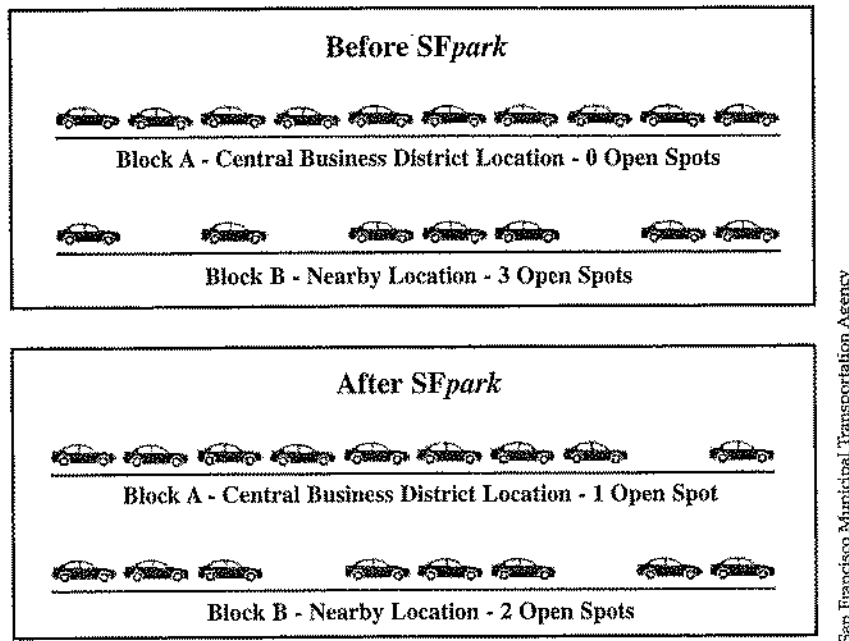
Figure P-1. Performance prices create open spaces on every block.

lowest prices the city can charge without creating a parking shortage. Because San Francisco has set a policy goal for how curb parking should perform, the demand for parking will set the prices.

Performance parking programs do not rely on complex models to set prices; they rely only on paying attention to the results. After shifting from a revenue goal to an outcome goal for the parking system and choosing the occupancy rate to indicate the desired outcome, the city council will no longer have to vote on parking prices. If too many curb spaces are vacant, the price will go down, and if no curb spaces are vacant, the price will go up. Wanting more money will no longer justify raising prices. Relying on the power of an impersonal rule to set prices makes an end run around the politics of parking.

In preparing for SF*park*, San Francisco conducted a census of its parking spaces and found 281,000 on-street spaces, which make up 58 percent of all publicly available parking in the city. San Francisco has one on-street parking space for every three people in the city, but only 9 percent of those spaces are metered.[5] Expanding SF*park* into areas that have a shortage of curb parking can greatly improve management of this valuable asset and also yield substantial revenue for local public investments.

Several other cities—including Los Angeles, New York, Seattle, and Washington, D.C.—have adopted similar performance parking policies. The Afterword explains their programs.

Opposition to SFpark. Drivers who cruise in search of free curb parking pay with time instead of money, and their cruising congests traffic, pollutes the air, and wastes fuel. In contrast, drivers who pay money for performance-priced curb parking provide funds to improve public services. Nevertheless, some people oppose charging anything for curb parking. One group in San Francisco, the Act Now to Stop War and End Racism (ANSWER) Coalition, has strongly but unsuccessfully tried to block SF*park*. One flyer proclaimed:

> Stop the parking meter hike! Make the rich pay, not the workers! Don't squeeze workers and small business. This is a tax on the people! It's time to organize and defeat the parking meter robbery![6]

The ANSWER Coalition opposes foreign wars for oil but supports free parking at home, and this sort of confusion is common in debates about parking policy. Thinking about parking seems to take place in the reptilian cortex, the most primitive part of the brain responsible for making snap decisions about urgent fight-or-flight choices, such as how to avoid being eaten.[7] The brain's reptilian cortex is said to govern instinctive behavior involved in aggression, dominance, territoriality, and ritual display—all important factors in cruising for parking and debating about parking policies.

The ANSWER Coalition's criticism of SF*park* is misguided. Thirty percent of households in San Francisco don't own a car, and the city uses all the parking meter revenue to subsidize public transit. Many poor people ride buses that are mired in traffic congested by richer drivers who are cruising for underpriced curb parking.[8]

Drivers who don't want to pay for parking often push poor people out in front of them like human shields, claiming that charging for parking will hurt the poor. Free curb parking limits the revenue available to pay for public services, and poor people are less able to replace public services with private purchases the way richer people can. The poorest people cannot afford cars, but they can benefit from public services—such as public transportation—that are financed by parking revenues. Using curb parking revenue to pay for local public services is much fairer than keeping curb parking free and requiring ample off-street parking (see pp. 530–539).

Some opposition to performance parking prices may be due to unfamiliarity, and only experience will change minds. Once drivers have become accustomed to performance prices and see that prices can decline as well as increase, they may come to value the ready availability of curb parking. What seems indefensible for a current generation

may become indispensable for future generations. Familiarity breeds acceptability and, as Thomas Paine wrote, "Time makes more converts than reason."

New Technology for Performance Pricing

Setting an occupancy goal is easier than achieving it. How can a city adjust parking prices to yield one or two open curb spaces on every block? Fortunately, the technology used to charge for parking and measure occupancy has advanced rapidly in recent years. This new technology enables cities not only to set different prices at different times of day but also to measure the resulting occupancy of curb spaces.

Occupancy sensors are one promising new technology (see Figure P-2).[9] These sensors are about the size of a hockey puck and are placed in every curb space, either on the surface of the street or a few inches beneath it. They sense changes in the earth's magnetic field when a ton of metal is parked above and send this information to a central database. San Francisco will use the data from sensors to adjust parking prices once a month to reach the occupancy goal.[10]

Figure P-2.
Occupancy sensor

The technology for charging variable prices has also advanced. Most multispace meters can charge variable prices through the day, and these prices can be remotely updated without touching the meters. Multispace parking meters on the UCLA campus charge four different prices during a day, and the price of parking is not printed anywhere on the meter. When drivers touch a button on the meter, the digital display shows the price of parking at that time (see Figure P-3). For example, during peak hours the price of parking at the center of campus is $3 for the first hour and $4 for the second hour. Is this too much to charge for parking at a university? You cannot answer this question without looking at the results. The right price of curb parking is like Supreme Court Justice Potter Stewart's definition of pornography: "I know it when I see it."

Figure P-3. Variable parking prices

UCLA has not installed occupancy sensors, but I took photographs of eight parking spaces governed by the meter in Figure P-3 every four minutes for an hour and calculated the occupancy rate. In effect, I was the occupancy sensor. The goal of having one or two vacant spaces was met 87 percent of the time, and the average occupancy rate was 83 percent (see Figure P-4). I am *not* saying that $3 an hour is the right price for curb parking. I am saying that $3 an hour was the right price *at that time, at that place.* The combination of high-tech meters and occupancy sensors will allow cities to charge the right prices for curb parking everywhere.
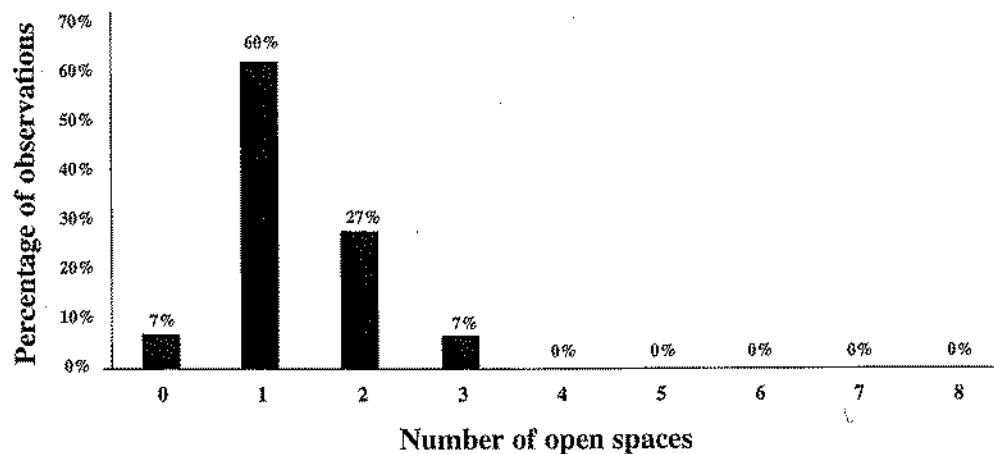
Figure P-4. Parking is well used but readily available.

Should the price of parking be lower? Then all the spaces will often be full and drivers will have to cruise for parking. This cruising will waste fuel, pollute the air, congest traffic, and increase carbon emissions. Should the price of parking be higher? Then more spaces will remain vacant because fewer drivers will pay to park in them. In business districts the stores will lose customers, the city will lose sales tax revenue, employees will lose jobs, and the economy will suffer. So other than aiming for one or two open spaces on every block, can anyone recommend a better principle for setting the price of curb parking?

Miniaturization is another technology that allows even single-space meters to offer sophisticated features such as variable prices, remote updates, payment by credit card, and solar power (see Figure P-5).[11] Drivers who pay by credit card can pay for more time than they expect to use, and, upon returning, reinsert the credit card to deduct the unused time before the card is charged.[12] This arrangement has two advantages. First, it reduces uncertainty. Drivers no longer have to guess how much to pay, worry that they have guessed wrong, or rush

back to the meter to avoid getting a ticket. Second, drivers pay only for the time they use.

The increasingly common option of paying for parking by mobile phone also offers drivers the ability to pay only for the time parked, with no worry about returning before a meter has expired (see pp. 389–390). Paying for curb parking can thus be as convenient and worry
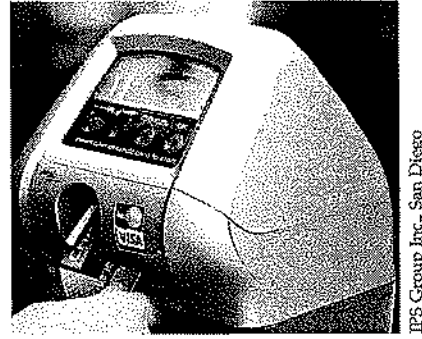
Figure P-5. Smart meter

free as paying for other services where the charge depends on the time used, such as long-distance telephone calls. If cities remove time limits at meters and give drivers the option to use credit cards at meters or pay by mobile phone, performance prices may become more acceptable, because they give drivers greater convenience.

Because occupancy sensors and parking meters provide real-time information for every parking space, the city has real-time information about the number of occupied but unpaid-for spaces on every block, enabling enforcement officers to focus on areas with high violation rates. Paying at a parking meter is like taking out an insurance policy against getting a parking ticket. It is a gamble, and a higher probability of being ticketed for overtime parking will encourage drivers to pay the meter rather than risk a ticket.

These two new technologies—occupancy sensors and remotely configured, variably priced parking meters—may change parking and transportation as profoundly as the invention of the cash register in the 19th century changed retail commerce. They can unlock the immense value of land now devoted to free parking and bring transportation into the market economy.

If the Price Is Right, Customers Will Come

Often when I present a proposal for performance parking prices in a city, someone in the audience vehemently says something like "If this city operates the parking meters in the evening, I will never drive downtown to eat in a restaurant again." This threat to boycott downtown restaurants would be a convincing argument if many curb spaces remained empty after the meters began operating in the evening. But this threat ignores the key argument for performance prices: *If the meters are priced right, cars will fill most of the curb spaces, leaving only one or two vacant spaces on each block.* If most curb spaces are filled, parking meters can't be chasing all the customers away.

Meters *will* chase away some drivers, but the curb spaces these drivers would have occupied will then become available to customers who are willing to pay for parking if they can easily find a convenient curb space on the block they want to visit. Because the curb spaces will remain almost fully occupied, merchants shouldn't be alarmed that performance prices will harm their businesses. And who is likely to leave a bigger tip in a restaurant? Drivers who are willing to pay for parking if they can always find open curb spaces at their destinations? Or drivers who will come only if they can park free after they circle the block a few times to find free parking?

The benefits do not stop with bigger tips. Whenever I am in a restaurant, I usually ask the waiters where they park. If the meters cease operating at 6 p.m. in the area, waiters often tell me they try to arrive shortly before 6 p.m. so they can find a meter and park free for the whole evening. But the curb spaces these waiters use are then not available for potential restaurant customers. If cities instead charge performance prices for curb parking and run the meters as late as needed to manage demand, waiters can park off-street or farther away in cheaper curb spots, making the most convenient spots available for more restaurant customers, who can leave more tips for the waiters.

Both common sense and empirical research suggest that performance-priced curb parking will motivate more people to carpool, because carpoolers can share the cost of parking while a solo driver pays the full cost (see p. 362). Waiters who park free at the curb will probably be solo drivers, but diners who pay to park may arrive with two, three, or four customers in a car. Further, performance prices will promote faster turnover because drivers will pay as long as they park. If a curb space turns over twice during the evening, each space can deliver two groups of diners to a restaurant rather than one waiter (see pp. 363–366). For both reasons—higher-occupancy vehicles and faster turnover—performance prices for curb parking will attract more customers to a business district. With more customers, the restaurants can expand and hire more waiters and pay more in sales taxes. Charging performance prices to manage curb parking can thus benefit many people, including even those who don't live in the metered areas.

A further advantage of performance prices is that they will decline when demand declines during a recession. The price of curb parking will automatically fall to keep the customers coming. The cheaper curb parking will help businesses survive and prevent job losses. But if curb parking prices remain high during a recession, curb spaces will be underoccupied, stores will lose customers, and more people will lose jobs.

If cities eliminate cruising by charging performance prices for curb parking, where will the cruising cars go? Because drivers will no longer have to arrive at their destinations 5 to 10 minutes early to search for a curb space, their vehicle trips will be 5 to 10 minutes shorter. The reduction in traffic will come not from fewer vehicle trips but from shorter vehicle trips.

Everybody wants something for nothing, but we should not promote free parking as a principle for transportation pricing and public finance. Using performance prices to manage curb parking can produce a host of benefits for businesses, neighborhoods, cities, transportation, and the environment. Parking wants to be paid for.

2. RETURN PARKING REVENUE TO PAY FOR LOCAL PUBLIC SERVICES

Drivers want to park free, and that will never change. What can change, however, is that people can want to *charge* for curb parking. The simplest way to convince people to charge for curb parking in their neighborhood is to dedicate the resulting revenue to paying for added public services in the neighborhood, such as repairing sidewalks, planting street trees, and putting utility wires underground. That is, the city can offer each neighborhood a *package* that includes both performance-priced curb parking *and* the added public services financed by the meters. Performance pricing will improve the parking and the revenue will improve the neighborhood. The people who live and work and own property in the neighborhood will see the meter money at work, and the package will be much more popular than meters alone.

Local Politics

Old Pasadena, a historic business district in Pasadena, California, is the leading example of a battered area that dramatically improved after the city used parking meter revenue to finance added public services (see Chapter 16). Spending more than $1 million a year of meter money on new public services helped convert what had been a commercial skid row into one of the most popular tourist destinations in Southern California. The success has even accelerated in recent years. In 2010, Marilyn Buchanan, a prominent business leader in Old Pasadena, said about the use of meter revenue:

Our public-private parking management situation works because of the knowledge we [the Old Pasadena business community] bring to it. . . . We have the passion for Old Pasadena and the business sense to recognize long-term good. Money is still a very personal issue and you can't just take our money and throw it into the general fund. Our money belongs here in Old Pasadena and we know how to put it to good use. Not selfish use but use for the good of the community which in the end of course helps us, the business people.[13]

If all parking revenue disappears into a city's general fund, business leaders and residents probably won't campaign for meters, even with all the sophisticated hardware now available to charge performance prices. Dedicating the revenue to paying for local public services can be the political software necessary to create local support for performance prices. If meter money stays in the neighborhood, it will probably be spent on things the residents value highly. And if new public spending in a neighborhood is financed by new revenue generated in that neighborhood, residents in the rest of the city will probably find this spending more acceptable.

Some people seem to think that parking meter revenue should go neither into the general fund nor back to the neighborhood but instead into a trust fund for motorists—for example, to build off-street parking garages. But if each neighborhood's parking meter revenue goes into a trust fund for the neighborhood and the money can be spent for the neighborhood's highest priorities, such as cleaner and safer sidewalks, residents may soon realize that subsidizing cars is not the best use of their trust fund.

Redwood City

In 2005, Redwood City, California, south of San Francisco, adopted legislation establishing a performance parking policy and returning the meter revenue to the metered district. The city council set a performance goal for curb parking—a target occupancy rate of 85 percent—and gave city staff the responsibility for adjusting prices to achieve the target occupancy. The council thus set parking *policy*, not parking *prices*. The council also dedicated the meter revenue to pay for public improvements in the metered zone. Once the merchants understood that the revenue would remain in the metered district, they strongly backed the proposal, and the members of the city council voted for it unanimously.

REDWOOD CITY'S PERFORMANCE PARKING ORDINANCE

To accomplish the goal of managing the supply of parking and to make it reasonably available when and where needed, a target occupancy rate of eighty-five percent (85%) is hereby established.

The Parking Manager shall survey the average occupancy for each parking area in the Downtown Meter Zone that has parking meters. Based on the survey results, the Parking Manager shall adjust the rates up or down in twenty-five cent ($0.25) intervals to seek to achieve the target occupancy rate.

Revenues generated from on-street and off-street parking within the Downtown Meter Zone boundaries shall be accounted for separately from other City funds and may be used only . . . within or for the benefit of the Downtown Core Meter Zone.

Sections 20.120 and 20.121 of the Redwood City Municipal Code

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When Redwood City began to charge performance prices for curb parking, it also removed the time restrictions at meters, and this has been the program's most popular feature.[14] Because curb parking prices are higher than the adjacent off-street prices, most drivers who want to park for a long time naturally choose the off-street spaces.

Removing time limits for curb parking is especially important if meters operate in the evening. Having a one-hour time limit can make the curb spaces almost useless for people who want to dine in a restaurant or go to a movie. In 2009, desperate for new revenue, Los Angeles extended the hours of meter operation to 8 p.m. in business districts but left many of the one-hour time limits in place. As a result, many spaces remain empty in the evening and most revenue is from tickets for overtime parking. The time limits harm the adjacent businesses by making it difficult for restaurant or theater patrons to park and by irritating customers who get tickets. If customers have convenient curb parking, businesses will prosper and the city will receive more sales tax revenue, so removing time limits and pricing curb spaces to yield one or two vacancies in each block can help everyone.

The Afterword reports on the programs in several other cities—including Austin, Texas; St. Louis, Missouri; Ventura, California; and Washington, D.C.—that earmark the revenue from curb parking to pay for public services in the metered districts.

3. REMOVE MINIMUM PARKING REQUIREMENTS

Reform is not only adopting good policies but also repealing bad policies. Charging performance prices for curb parking and dedicating the revenue to pay for local public services are two good policies that cities can adopt. In contrast, requiring all buildings to provide ample parking is a bad policy that cities can repeal.

In Greek mythology, a cornucopia always overflowed with whatever its owner wanted. Chapters 1 to 10 show how the prohibition against buildings without ample parking does give us all the free parking we want, but that this cornucopian parking distorts transportation choices, debases urban design, damages the economy, and degrades the environment. Like alcohol prohibition in the 1920s, minimum parking requirements do more harm than good and should be repealed.

Some cities have begun to remove minimum parking requirements, at least in their downtowns, for two reasons. First, parking requirements prevent infill redevelopment on small lots, where fitting both a new building and the required parking is difficult and expensive. Second, parking requirements prevent new uses for many older buildings that lack the parking spaces required for the new uses (see pp. 97–101 and 153–156).

A search of newspaper articles about minimum parking requirements found 129 reports of cities that have removed off-street parking requirements in their downtowns since 2005. Although newspaper articles do not represent what all cities are doing, the articles include many comments on *why* cities are beginning to change their policies. At least in downtown business districts, some elected officials have been convinced that parking requirements put the brakes on what they want to happen and accelerate what they want to prevent. Some of the reasons given for removing parking requirements are "to promote the creation of downtown apartments" (Greenfield, Massachusetts), "to see more affordable housing" (Miami), "to meet the needs of smaller businesses" (Muskegon, Michigan), "to give business owners more flexibility while creating a vibrant downtown" (Sandpoint, Idaho), and "to prevent ugly, auto-oriented townhouses" (Seattle).

According to these quotes, cities remove parking requirements to prevent bad results and to produce good ones. The logical corollary is that parking requirements produce bad results and prevent good ones.[15] Removing a minimum parking requirement is not the same, however, as restricting parking or putting the city on a parking diet. Rather, minimum parking requirements force-feed the city with parking spaces, and removing a parking requirement simply stops this force-feeding. Businesses will be free to provide as much parking as they like.

An Example from Downtown Los Angeles

Many older downtowns have some wonderful buildings in terrible condition. Minimum parking requirements make restoring these historic buildings difficult or impossible, because they rarely have all the parking spaces cities require for new uses. Spring Street in Los Angeles, once known as the Wall Street of the West, is a prime example. It has the nation's largest collection of intact office buildings built between 1900 and 1930. Starting in the 1960s, the city's urban renewal program moved most office uses a few blocks west to Bunker Hill and left many splendid Art Deco and Beaux Arts buildings on Spring Street vacant except for retail uses on the ground floor.

In 1999, Los Angeles adopted its Adaptive Reuse Ordinance (ARO), which allows the conversion of economically distressed or historically significant office buildings into new residential units—with no new parking spaces (Figure P-6). Before 1999, the city required two parking spaces per condominium unit in downtown Los Angeles; in effect, the city had determined that no housing was better than any housing without all the required parking spaces.[16] Michael Manville studied the results of the ARO and found that many good things can happen when a city removes its parking requirements.[17]

Developers used the ARO to convert 56 historic office buildings into at least 7,300 new housing units between 1999 and 2008. All the office buildings had been vacant for at least five years, and many had been vacant much longer. By contrast, only 4,300 housing units were added in downtown between 1970 and 2000.[18]

Skeptics doubted that banks would finance developers who wanted to convert office buildings into residential condominiums without two parking spaces each, but the skeptics were proved wrong. Developers provided, on average, only 1.3 spaces per unit, with 0.9 spaces on-site and 0.4 off-site in nearby lots or garages. Had the ARO not been adopted, the city would have required two *on-site* spaces for every unit, or more than twice as many as developers did provide. Manville noted, "The ability to supply parking off-site helped developers simultaneously satisfy lenders, minimize development costs, and maximize the potential of an old building."[19] Deregulating both the *quantity* and the *location* of parking for the new housing was a key factor in restoring and converting the 56 office buildings Manville studied. Manville concluded that removing the parking requirements "led to both *more* housing and a greater *variety* of housing. Not only were more units built, but these units were constructed in buildings and neighborhoods that had long been stagnant and underused. Further, almost half of these buildings

unbundled some or all of the parking from rent, allowing them to target an underserved demographic—people without cars."[20]

The ARO also exempts the converted office buildings from other planning requirements, such as density and height limits for residential uses, so the exemption from parking requirements isn't the sole reason for the conversions. Nevertheless, if the city hadn't removed the parking requirements these conversions couldn't have occurred, and the conversion boom shows that there is a residential market for people who don't own two cars. These results strongly suggest that until the ARO was adopted, minimum parking requirements had been preventing the restoration and conversion of many obsolete office buildings into housing.

The ARO also produced other benefits. It allowed the preservation of many historic buildings that had been vacant for years and might have been demolished if minimum parking requirements had remained in place. Historic buildings are a scarce resource in any city, and the evidence shows that parking requirements stood in the way of preserving these buildings. The ARO applied only to downtown when it was adopted in 1999, but the benefits were so quickly apparent that it was extended citywide in 2003.

The ARO preserved not only individual historic buildings but also a historic neighborhood. The Spring Street Financial District was listed in the National Register of Historic Places in 1979, but by then, the *Los Angeles Times* reported, it had become "a neighborhood of hoodlums, derelicts
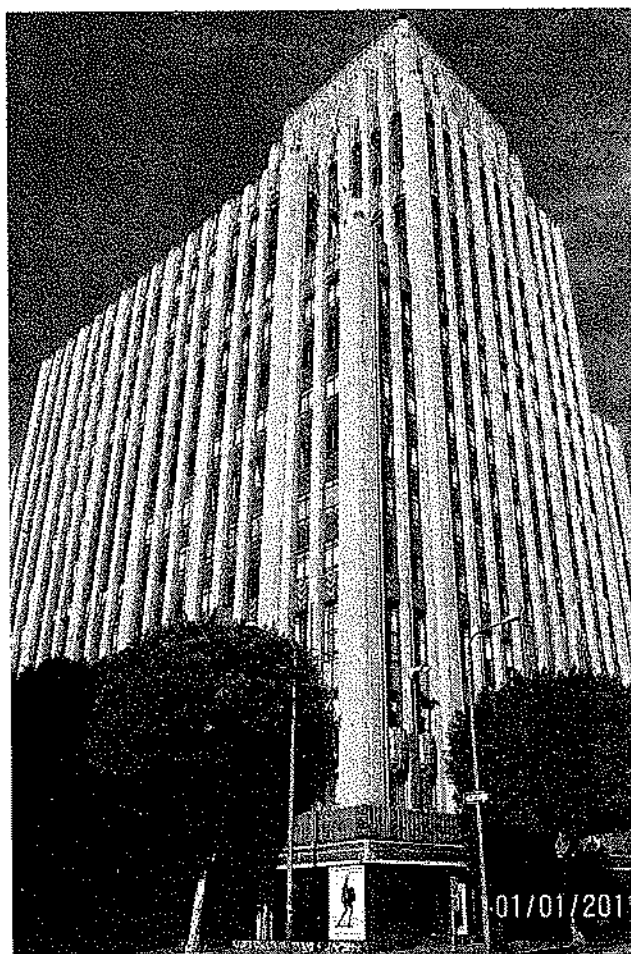
Figure P-6. Office building in Los Angeles converted to residential use without adding on-site parking spaces.

and winos—a neighborhood of echoing buildings full of absolutely nothing above the ground floor."[21] If empty office buildings blight a neighborhood, preserving and converting them to residential use can help restore a neighborhood. The benefits of removing off-street parking requirements do not stop with historic preservation. The conversion projects created many jobs, and the government receives higher property tax revenue on the converted buildings.

Los Angeles's ARO shows the good results of removing off-street parking requirements. We usually can't see things that don't happen or count things that don't occur, but the beautifully restored buildings on Spring Street show us some wonderful things that parking requirements had been preventing in Los Angeles and are now preventing in many other cities.

An Example from Silicon Valley

Cities are removing or reducing off-street parking requirements in their downtowns, but most people live and work outside downtown. In the suburbs, cities often require more space for cars than for people. Figure P-7 shows the relationship between buildings and the required parking at a few land uses in San Jose, California.[22] The area required for parking at a restaurant, for example, is more than eight times larger than the dining area in the restaurant itself. Even if the required parking is used only intermittently, as at an auction house, the city requires the parking lots to be big enough to meet the peak demand for free parking.[23]

High parking requirements help to explain the parking-dominated landscape in many parts of San Jose and the rest of Silicon Valley. The top picture in Figure P-8 shows an example of the parking-disoriented development. Developers rarely provide more parking than cities require (see pp. 89–92), so the buildings in the picture are probably as big as they can be, given the number of parking spaces surrounding them. Many of the spaces, especially the ones at the periphery of the parking lots and adjacent to the streets, remain vacant almost all the time. So what would happen if
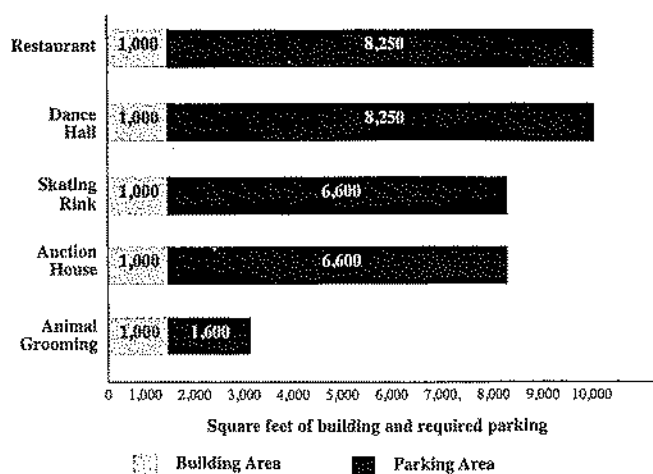
Figure P-7. San Jose's minimum parking requirements

San Jose removed off-street parking requirements, charged performance prices for on-street parking, and returned the resulting revenue to the metered neighborhoods? Property owners might decide their land was more valuable for housing than for vacant parking spaces.

Everyone in Silicon Valley complains about high housing prices, long commutes, traffic jams, air pollution, and the difficulty of attracting employees. Building housing on the periphery of parking lots would help to solve all these problems. The bottom picture in Figure P-8 suggests what might happen without minimum parking requirements. If apartment buildings were built next to the sidewalks, anyone walking, biking, or driving by would see what looks like a real city. The smartest way to travel is to be near your destination already, and this job-adjacent housing would give commuters out-of-car experiences while walking to work.

Stuart Cohen, Transportation and Land Use Coalition

Figure P-8. Parking lots in Silicon Valley before and after liner buildings

Liner Buildings

New urbanists refer to buildings that mask a parking lot or garage from the street as *liner buildings*. Figure P-9 shows one of the liner buildings inserted in the bottom picture in Figure P-8.[24] The term *liner* suggests that the wrapping is a superficial way to hide what is inside, but in this case the wrapping would probably be far more
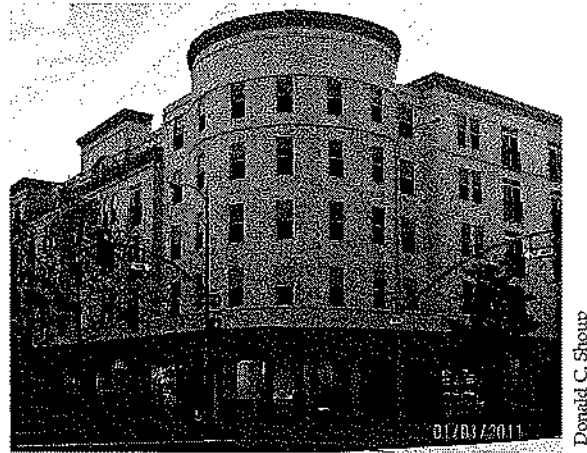
Figure P-9. Liner building

valuable than the parking spaces it would replace. Parking is probably the least profitable use of this peripheral land since almost any other use would yield far more revenue. In parking, as in everything else, there are opportunity costs.

The land is already assembled, and the housing could be built without new parking because the existing spaces could be shared between office buildings and apartments. To avoid a parking shortage, the owner would probably have to unbundle the cost of parking from the rent for both apartments and offices, so car owners would pay only for the parking spaces they use (see Chapter 20). Some residents who work in a nearby office building may find they could easily live with only one car, and they would appreciate the freedom to rent an apartment without paying for two parking spaces.

If cities remove off-street parking requirements, they will have to charge performance prices for the curb spaces to prevent spillover, but this will produce another great benefit: All the money paid for curb parking will become a new revenue stream to pay for local public services. Curb parking will become too valuable not to meter.

Removing the parking requirements for both housing and offices can produce a cascade of benefits: shorter commutes, less traffic, a healthier economy, a cleaner environment, and more affordable housing. And the benefits don't stop there. If we reform our misguided planning for parking, the money now spent on cars and fuel will become available for other things. Cars and fuel are often imported, but we cannot import apartment buildings. Shifting spending from cars, fuel, and parking to housing construction will increase the demand for labor in a host of professions, such as architects, carpenters, electricians, engineers, gardeners, glaziers, laborers, lawyers, locksmiths, painters, plumbers, real estate agents, roofers, surveyors, and even urban planners. Importing

less oil and hiring all these people to build infill development will boost the whole economy.

The five-story apartment buildings shown in Figure P-8 are not the only option for liner buildings. Courtyard apartments, row houses, office buildings, stores, restaurants, or even single-family houses might be the best use for the land on the periphery of a parking lot. Liner buildings can create the atmosphere of a city, not a parking lot. If cities stop requiring off-street parking, vast suburban parking lots can evolve into real communities.

It is easy to see the bad results caused by parking requirements—asphalt everywhere and a lack of life on the streets. But it is hard to see the good results that parking requirements *prevent*. Photoshop can suggest, however, what cities might look like without parking requirements. The upside of the mess we have made is that we have an accidental land bank readily available for job-adjacent housing. This land is now locked up in required parking, but if cities remove their unwise parking requirements we can reclaim land on a scale that will rival the Netherlands.

A QUIET REVOLUTION IN PARKING POLICIES

Academic research has repeatedly shown that minimum parking requirements inflict widespread damage on cities, the economy, and the environment. But this research has had little influence on planning practice. Most city planners continue to set minimum parking requirements as though nothing has happened. The profession's commitment to minimum parking requirements seems to be a classic example of *groupthink*, which Yale professor of psychology Irving Janis defined as "a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' striving for unanimity overrides their motivation to realistically appraise alternative courses of action."[25] The process of setting minimum parking requirements displays most of the symptoms of defective decision making that Janis identified with groupthink: incomplete survey of alternatives; incomplete survey of objectives; failure to examine risks of preferred choice; poor information search; and selective bias in processing information at hand.[26] Unfortunately, academic research on parking has had little effect on practitioners' groupthinking, even though the research shows that a central part of the practice does so much harm.

Requiring Peter to pay for Paul's parking, and Paul to pay for Peter's parking, was a bad idea. People should pay for their own parking, just as they pay for their own cars and their own gasoline. The planning profession has given cities bad advice about parking requirements, which

have misshaped our cities to fit the car—almost without planners' noticing.[27] Parking requirements hide the cost of parking, but they cannot make it go away, and free parking usually means fully subsidized parking. At the very least, parking requirements should carry strong warning labels about all the dangerous side effects.

Suppose cities required all fast-food restaurants to include french fries with every hamburger. The fries would appear free, but they would have a high cost in money and health. Those who don't eat the fries pay higher prices for their hamburgers but receive no benefit. Those who do eat the fries they wouldn't have ordered separately are also worse off, because they eat unhealthy food they wouldn't otherwise buy. Even those who would order the fries if they weren't included free are no better off, because the price of a hamburger would increase to cover the cost of the fries. How are minimum parking requirements different? Minimum parking requirements force people who are too poor to own cars to pay for parking spaces they don't use, and they encourage others to buy more cars and drive them more than they would if they had to pay separately for parking. I am not saying that there should be no parking. I am saying that parking should be supplied in a fair market.

Despite institutional inertia in the practice of planning for parking, reforms are sprouting. Paradigm shifts in urban planning are often barely noticeable while they are happening, and after they have happened it is hard to tell that anything has changed. But shifts happen. Planners simply begin to understand cities in a new way and can scarcely remember a time when they understood cities differently. The incremental reforms now under way suggest that off-street parking requirements will not quickly disappear but will gradually erode. Cities may slowly shift from minimum parking requirements to performance parking prices without explicitly acknowledging that planning for parking had ever gone wrong. Eventually, however, planners may recognize that minimum parking requirements were a poisoned chalice, providing ample free parking while hiding the many costs. Our ample free parking comes at the expense of our cities' future.

All parking is political, and the prospects for parking reform depend on what the political context allows. Diverse interests from across the political spectrum can for different reasons support a shift from minimum parking requirements to performance parking prices. Liberals will see that it increases public spending. Conservatives will see that it reduces government regulation. Environmentalists will see that it reduces energy consumption, air pollution, and carbon emissions. Business leaders will see that it unburdens enterprise. New urbanists will see that it enables people to live at high density without being over-

run by cars. Libertarians will see that it increases the opportunities for individual choice. Developers will see that it reduces building costs. Neighborhood activists will see that it devolves public decisions to the local level. Local elected officials will see that it reduces traffic congestion, encourages infill redevelopment, and pays for local public services without raising taxes. The current system of planning for parking does such widespread harm that the right reforms can benefit almost everyone.

But all these people also want to park free. They may not have an ideological or professional interest in free parking, but they do have a *personal* interest in it. This personal interest in free parking helps explain the popularity of minimum parking requirements. But the right use of parking meter revenue can also create a countervailing personal interest in *charging* for curb parking. Cities can create the necessary political support for performance parking prices by dedicating the meter revenue to pay for enhanced public services on the metered streets (see Chapters 16 and 17).

Both Jane Jacobs and Robert Moses might have agreed that charging performance prices for curb parking and using the revenue to improve the metered neighborhoods are good public policy. Jane Jacobs loved lively neighborhoods, and Robert Moses mastered the art of using tolls to finance public investments. Combining the best of both Jacobs and Moses can guide cities off the hard path of minimum parking requirements onto the soft path of performance parking prices.

In this book I focus on how performance parking policies can repair the damage minimum parking requirements have done to American cities, but the same policies are also appropriate for developing countries that do not yet have high levels of automobile ownership. Even countries with low automobile ownership have chaotic parking problems, as suggested by this description of Mexico City:

> Cars dominate nearly every square inch of Mexico City's public space. Vehicle owners double- and triple-park on the streets, to say nothing of curbs, sidewalks, gardens, alleys, boulevards and bike paths.[28]

Crowded cities in India also have problems with sacred cars, although only 14 percent of households in India own a car, and ownership is concentrated among the relatively rich.[29]

Many big cities in poor countries have such a high density of people that even a low rate of car ownership per household leads to a high density of cars. If these cities adopt performance prices for curb parking and use the revenue to pay for local public services, never before will so

many poor people receive so much public benefit paid for by so few rich people. Even drivers will benefit because performance prices will help solve the two most difficult problems of owning a car in these cities: traffic congestion and parking shortages.

Market prices can manage the demand for parking spaces. If cities continue to offer free curb parking and require ample off-street parking, it won't be because performance prices don't work but because planners and politicians choose not to change course. There is a way, but we need the will. We can make great gifts to the future by reforming our misguided planning for free parking. In both sprawling rich cities and crowded poor cities, charging performance prices for curb parking, spending the revenue on local public services, and removing off-street parking requirements can do a world of good.

After SF*park*

Block A - Central Business District Location - 1 Open Spot

Block B - Nearby Location - 2 Open Spots
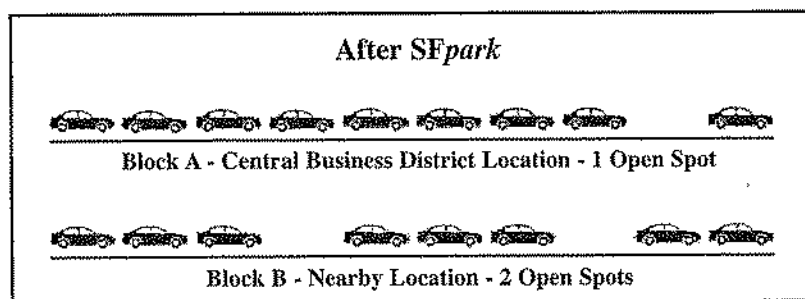
PREFACE NOTES

1. Twenty-four reviews of the book are available at http://its.ucla.edu/shoup/BookReviews.pdf.

2. Schaller (2006, 1, 15) and Transportation Alternatives (2007, 1).

3. Transportation Alternatives (2008, 10). Another way to learn about cruising is to ask drivers how much time they spend hunting for parking spaces. A survey of 9,000 drivers in the United Kingdom in 2010 found that British drivers reported spending an average of 25 minutes per day, or 152 hours per year, cruising for parking (Macrae 2010). That adds up to 11 months for someone who drives over the course of 50 years. Londoners lost the most time cruising, an average of 182 hours a year, or 54 weeks in 50 years.

4. Also with a grant from the U.S. DOT, Los Angeles will establish a similar program, called ExpressPark (Groves 2010). Berkeley, California, is establishing a program of "dynamic parking pricing" in two neighborhoods. In Los Angeles, occupancy sensors send information on curb vacancies to an iPhone app, Parker, which provides a real-time map showing nearby city blocks with more than four, more than two, or less than two vacant curb spaces, as well as blocks with "rock star" parking—the closest blocks with the most open spaces. The app also shows information about meter time limits, meter prices, and whether meters take credit cards or coins.

5. The census did not include off-street residential parking spaces. The data are available at http://sfpark.org/2010/04/05/parkingcensus.

6. The ANSWER Coalition's website is www.answercoalition.org/national/index.html.

7. See, for example, Raskin (2007).

8. Even rich people who complain about paying for parking may shift to public transit. Consider this instance in Beverly Hills: "Glen Rosten, 60, a retired real estate investor in Beverly Hills, took the bus to shop at Cartier on Rodeo Drive on Friday. 'You hate to get ripped off for parking, especially if you're going to spend the money you generally spend in Beverly Hills,' said Rosten after buying new sunglasses for about $1,000. 'The parking wouldn't break me,' he said. 'It's just the principle. If I'm going to spend $1,000 for sunglasses, I shouldn't have to pay for parking'" (Hennessy-Fisk and Abdollah 2007).

9. Barry (2010).

10. SF*park* has an excellent website that describes the program, including a short video that shows how the program works: http://sfpark.org.

11. Pierce (2010). Multispace meters also offer a new twist: pay by license plate number. Drivers enter their license plate numbers at the pay station when paying for parking. They do not need to remember their space numbers or return to their cars to display receipts. Parking enforcement officers use vehicle-mounted license-plate-recognition cameras that communicate with the payment database to check whether drivers have paid or whether they have permits for residential parking districts.

12. The payment system has two forms: (1) start–duration, in which the driver inserts the credit card to pay for a fixed time in advance and reinserts the card when leaving to receive a rebate for unused time, or (2) start–stop, in which the driver inserts the credit card to start paying and reinserts the card when leaving to stop paying. Payment by cell phone can have the same start–duration and start–stop options.

13. Salzman (2010, 27).

14. In a *Wall Street Journal* article about Redwood City's program, Conor Dougherty (2007) wrote, "In the past, Cheryl Angeles has had to jump up in the middle of a coloring treatment, foil in her hair and a black-plastic cape around her neck, to pop more

quarters in the meter. Twice the self-storage company regional manager got $25 parking tickets when she didn't make it in time. Now that the time limits have been removed, she can pay once and return when the appointment is over."

15. Many other newspaper articles illustrate how off-street parking requirements affect the layout and restrict the use of buildings. Consider, for example, this report about the design of the $25 million Holocaust Memorial Museum in Illinois: "The number of seats in the main lecture hall of the museum, originally set at 293, has been reduced to 270 to meet parking requirements" ("Holocaust Museum makes modifications to site plan," *Pioneer Press*, December 1, 2005). Consider also this report about a restaurant in Florida: "Town planning staffers have recommended approval of the site plan changes, but tagged several conditions onto their recommendations. Chief among them are the requirements to reduce the restaurant area by 1,500 square feet to match the parking available during the day" ("Guanabanas seeks Jupiter's permission to become full-fledged restaurant," *Jupiter Courier*, December 4, 2005).

16. Behdad (2006) explains the history of the ARO. For conversion of an office building to residential use under the ARO, Section 12.222-A, 26(h)(3) of the Los Angeles Municipal Code requires that "the number of parking spaces shall be the same as the number of parking spaces that existed on the site on June 3, 1999."

17. Manville (2010).

18. Manville (2010, 12).

19. Manville (2010, 17).

20. Manville (2010, 26).

21. Dreyfuss (1982).

22. The average size of an off-street parking space is assumed to be 330 square feet, including the access aisles needed for circulation in the parking lot or structure. San Jose requires 25 parking spaces per 1,000 square feet of dining area in a restaurant, so the parking lot is 8,250 square feet for every 1,000 square feet of dining area (25 spaces x 330 square feet).

23. See Table 20-190 in the San Jose Municipal Code.

24. The apartment buildings inserted on the periphery of the parking lot are copied from downtown Los Angeles.

25. Janis (1982, 9). Other definitions of groupthink emphasize conformity and uncritical acceptance of a perceived majority point of view; the lack of creativity or individual responsibility in making decisions; the search for consensus without critically testing, analyzing, and evaluating ideas; the desire to minimize conflict; and making decisions without weighing all the facts, especially those contradicting the majority opinion.

26. Janis (1982, 175).

27. A survey of land-use plans in 30 cities and counties in North Carolina found that only two included any discussion of off-street parking requirements. Rodriguez et al. (2004, 7) explain that minimum parking requirements "lie at the intersection between land use and transportation planning, and as such are rarely included explicitly in either type of plan."

28. Dickerson (2004).

29. The Centre for Science and Environment (2009) explains how parking reforms in New Delhi can reduce traffic congestion, air pollution, and energy consumption; save drivers' time and fuel; and improve both neighborhood businesses and the environment. Barter (2010) studied parking policies in 14 Asian cities and recommends many promising policy reforms. The Institute for Transportation and Development Policy has also recently published two excellent reports on parking reforms in the United States (Weinberger, Kaehny, and Rufo 2010) and in Europe (Kodransky and Hermann 2011).

RIGHT SIZE PARKING
Final Report

AUGUST 2015

Right
Size
Parking
Tools to balance supply

King County
METRO

FEHR & PEERS
TRANSPORTATION CONSULTANTS

VIA

Project partners

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

CNT Sustainable Communities. Attainable Results.

ULI **Urban Land Institute** Northwest

Consultant team

Rick Williams Consulting

FEHR✝PEERS

VIA

km **Kidder Mathews** COMMERCIAL REAL ESTATE SOLUTIONS

Contents

What is the "right size" for parking?

Right-sizing parking means striking a balance between parking supply and demand.

Why does Right Size Parking matter?

Parking is expensive to build. Construction of parking in multi-family projects costs between $20,000 - $40,000 per stall, which has an impact on rent charged to tenants.

King County is over-parked. The Right Size Parking study found that on average, multi-family buildings in King County supply 40% more parking than is actually utilized.

Excess parking has negative effects on communities. Oversupply of parking leads to increased automobile ownership, vehicle miles traveled, congestion and housing costs.

The **Right Size Parking** project was designed to address the issues surrounding multi-family residential parking supply in King County, assembling local information on parking demand to guide parking supply and management decisions in the future.

www.rightsizeparking.org

Project overview

The Right Size Parking (RSP) project is an innovative, data-driven research and outreach effort focused on helping local jurisdictions and developers to balance parking supply and demand for multi-family buildings. Led by King County Metro, the public transit authority for King County, WA, the project advances the state of parking demand and pricing research by presenting up-to-date parking data in context.

Research has shown that multi-family parking is oversupplied. Based on parking utilization and pricing data gathered from over 200 multi-family properties in King County, WA, the RSP project determined that existing multi-family parking capacity exceeded utilization by an average of 0.4 spaces per housing unit — a 40% oversupply.

The RSP project determined that existing multi-family parking capacity exceeded utilization by an average of 0.4 spaces per housing unit — a 40% oversupply.

Excess parking presents significant barriers to smart growth and efficient transit service operations. Too much parking at residential properties is associated with more automobile ownership, vehicle miles traveled, and congestion as well as higher housing costs. On the other hand, too little parking can have negative impacts on the real estate marketability of multi-family housing projects in addition to on-street parking spillover impacts when on-street parking is not sufficiently managed and priced. Finding the balance of parking supply and demand supports transportation choice and walkable, more affordable neighborhoods.

The RSP project provides locally credible and context-sensitive data on parking demand, providing stakeholders with the information they need to make decisions that:

- Support economic development by reducing barriers to building mixed-use multi-family residential developments in urban centers near transit infrastructure

- Reduce housing costs as well as household monthly expenditures, allowing a larger demographic to participate in the urban and suburban infill housing markets

- Encourage transit use, ridesharing, biking and walking

- Reduce traffic congestion, vehicle miles traveled, and the amount of greenhouse gases (GHG) produced

Who benefits from RSP?

Developers, public decision makers, and communities all have the potential to benefit from the outcomes of this project. With updated context-sensitive information on parking demand, cities can regulate development in ways that meet local and regional goals. Developers can build more housing near transit and sell it for less.

This information is relevant to a wide variety of potential user groups, including jurisdictions, developers, and communities.

Sharing the research

A key goal of the RSP project is making the research available to and usable by the public. The data resources and tools created by the RSP project support a wide range of community and policy goals, such as providing a range of transportation choices (including transit), affordable housing, smart growth, and economic development. RSP tools have been designed for ease of use and adaptability.

Project background

The RSP project was funded through a grant from the Federal Highway Administration's (FHWA's) Value Pricing Pilot Program to address the issues around multi-family residential parking supply in King County. Initial data collection began in 2011, and the final RSP pilot projects were completed in 2015. The project directly addresses FHWA's call to action to develop policy that builds more livable communities. The project assembled local information on multi-family residential parking demand to guide future decisions regarding parking supply and management, therefore enabling the reduction of excess parking supply at multi-family housing developments in urban and suburban infill environments.

Why does right-sizing parking matter to affordability?

The high cost of parking construction and maintenance drives up the cost of housing and reduces the supply of affordable housing. Unless parking costs are separated from the cost of housing – "unbundled" - households are forced to pay for parking regardless of their needs. Even when parking costs are unbundled, developers often cannot

charge the full cost-recovery price for parking due to the required oversupply typical in zoning codes and 'sticker shock' concerns of their customers.

In King County, WA, parking makes up 10-20% of the cost to construct multi-family buildings, but only 6% is recovered through parking charges, meaning that the remainder must be accounted for through rent prices. This cross-subsidization, or recovering part of the parking investment through higher rental rates, causes a distorted market for parking and reduces the opportunity to use pricing as a tool to manage parking demand. Lower-income households are especially burdened by this distortion as they typically have lower rates of auto ownership and spend a larger percentage of their income on housing.

However, providing too little parking also can pose risks for real estate marketability and cause on-street parking impacts nearby, such as parking spillover, especially when on-street parking is not sufficiently managed and priced. These problems suggest that there is a "right size" to providing parking that strikes a delicate supply-to-demand balance, ensuring real estate marketability while meeting community goals.

Why King County Metro?

The RSP project is aligned with the mission of King County Metro Transit. King County Metro's Strategic Plan calls for supporting the integration of transit and land use to create compact, healthy communities. Communities that are compact and friendly to pedestrians and bicycles are most easily served by transit. Such communities foster healthier, more active lifestyles while reducing auto-dependency and associated road investments. By the same token, transit service can support and encourage development that is more compact.

Public transit is often most successful in markets in which parking is priced and supplied to reflect actual demand. As a transit agency, King County Metro has an interest in encouraging land uses and policies that prevent over-building of parking supply. Too much parking leads to increased automobile ownership, vehicle miles traveled, congestion and housing costs. In addition, it presents barriers to smart growth and efficient transit service. Right-sizing parking in locations where an oversupply of parking exists can be expected to help promote transit ridership and service efficiency.

RSP Project Approach

1. Get the Data
- Scientific approach
- Field counts collect local, up-to-date data
- Statistical analysis

2. Provide New Tools
- Web tools, model code, best practices

3. Check the Code
- Find gaps and make changes

4. Engage Partners
- Implement public and private demonstration projects

Project scope

In order to address the project need for up-to-date, context-sensitive data and user-friendly tools for understanding parking supply and demand, the RSP team engaged a diverse set of stakeholders, including developers, financiers and public-sector decision makers. In collaboration with this assemblage of multidisciplinary advisors, the team worked to develop technical policy best practices aimed at overcoming barriers to right-sizing parking supply.

The RSP project was structured around an interdisciplinary approach to developing innovative research and tools, as well as providing best practices on policy reform and parking management. These tools were implemented and tested through demonstration pilot projects with local partners.

Through the coordinated work efforts of the project team, the RSP project was able to achieve the following objectives:

- Provide context-sensitive multi-family residential parking demand information on a dynamic website to guide stakeholder decisions about building new parking and managing existing parking

- Offer tools and incentives to jurisdictions and developers to test pricing and right-sizing of parking supply in residential and commercial developments

- Engage the development community through professional forums to utilize new parking demand information and implement pricing and management techniques

At the project outset, the RSP team conducted an audit of principal technical policy issues pertinent to achieving right-sized parking in multi-family residential buildings. From this assessment, the team compiled a Technical Policy Memorandum summarizing the known barriers and potential solutions for RSP in addition to a set of policy and action recommendations that set the stage for the project research. The Technical Policy Memorandum can be found at:

http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/rsp-technical-policy-memo-final-09-17-12.pdf

RSP research and modeling

The primary goals of the project research were to bring clarity to the existing lack of consensus on the factors that influence parking demand and to make the findings easily accessible to a broad audience. Despite a recent surge in research, a lack of consensus still exists on the factors that drive demand for parking in multi-family buildings across a variety of urban and suburban contexts. While socio-demographic, housing, and built environment variables have all been shown to have an impact on residential parking and vehicle availability, their relative influence is a source of debate.

The RSP research identified independent variables to be tested in a regression analysis of parking utilization within 208 multi-family housing developments in King County, WA, which was conducted in 2012. Parking utilization was correlated to building characteristics as well as to neighborhood characteristics where the building resides. The final model derived from this regression analysis incorporated seven variables – five pertaining to the property or development characteristics and two to the built environment – and has a high R-square value of 0.81, meaning that the model has very substantial explanatory power.

Web calculator

The King County Multi-Family Residential Parking Calculator is a map-based web tool that enables users to estimate parking use for multi-family developments in the context of specific building and site/neighborhood characteristics. The website tool condenses the research findings and RSP model into a simple interactive calculator format accessible to a wide variety of stakeholders. The web calculator can help analysts, planners, developers, and community members weigh factors that will affect parking use at multi-

family housing sites, including consideration of how much parking is "just enough" when making economic, regulatory, and community decisions about development.

Users are able to create custom multi-family parking scenarios and adjust them using variables related to the building and its location, including proximity to transit, unit and parking pricing, jobs and population. Understanding the influence of these variables helps determine how much parking is "just enough" for a particular site.

More detailed information about the web calculator can be found in Chapter 3. Try out the calculator online at:

www.rightsizeparking.org

Project partners and potential users

King County Metro applied for the FHWA grant in partnership with the Center for Neighborhood Technology (CNT) and the Urban Land Institute (ULI). As the leader of the RSP effort, King County Metro provided project administration and management as well as technical support for the project team. Recognizing that the issues addressed in the RSP project span multiple disciplines, Metro assembled a multidisciplinary team in order to ensure that the appropriate resources and expertise would be available to support the wide-ranging needs of the project.

What's in this document?

This document describes the RSP project goals, research methodology, and the results of the RSP pilot projects; provides an overview of stakeholder outreach efforts; and outlines next steps for RSP applications and research. In addition, this report introduces the tools and strategies created by the project for those interested in implementing RSP practices in other jurisdictions or communities. These tools can help analysts, planners, developers, and community members weigh factors that will affect parking use at multi-family housing sites.

Throughout this document, look for the RSP toolkit icon (above) to learn more about RSP tools and products. Links to additional project resources can be found in the Appendix.

Research scope and context

Today, multi-family residential buildings often provide too much automobile parking, which can be an impediment to achieving a wide range of community goals. An oversupply of parking can have deleterious effects on economic development, consumers, the community at large and the environment.

Excess parking consumes valuable urban real estate, which contributes to sprawl, lower-density development, and greater distances between buildings. Those outcomes can deter walking, transit use and efficient transit service operations. An oversupply of parking can also damage natural landscapes through urban sprawl, increase impervious surfaces and add to greenhouse gas emissions. These considerations pose challenges for communities that want to encourage multi-modal transportation options and promote smart growth land use planning strategies.

In auto-dominated suburban developments with little transit service, parking decisions are relatively straightforward; planners or developers can apply findings from parking generation studies conducted in similar communities across the country found in the Institute of Transportation Engineers (ITE) Parking Generation Manual. However, parking supply decisions become more complicated as suburban communities introduce more compact development, mixed uses, and new multimodal transportation options in addition to welcoming a more diverse demographic of multi-family housing users. Current suburban parking generation studies do not meet the objectives of these settings, nor do they account for factors that may influence parking demand. They also do not serve as an adequate model to guide parking provision in urban areas.

Despite a recent surge in research, a lack of consensus still exists on the factors that drive demand for parking and account for the variation in auto ownership in multi-family buildings across a variety of urban and suburban contexts. While socio-demographic, housing, and built environment variables have all been shown to have an impact on residential parking and vehicle availability, their relative influence is a source of debate.

Academics and practitioners have responded to this gap in research through a growing body of studies showing how the oversupply of parking can lead to increased auto ownership, vehicle miles traveled, congestion and housing costs. In addition, studies have shown that misaligned parking policies present barriers to smart growth and efficient transit service. There is some agreement that parking supply and pricing have a significant impact on parking demand and auto ownership, but these variables have been understudied.

The Right Size Parking research applies extensive data collection and analysis to provide clarity on the factors that influence parking demand in multi-family developments. Specifically, the objective of this research was to identify independent variables to be tested in regression analysis of parking utilization within 208 multi-family housing developments which were surveyed in King County, Washington in 2012.

The RSP research question: What are the contextual factors that influence parking demand for multi-family buildings?

Drawing upon an extensive literature review of existing parking standards and studies, the RSP team used regression analysis to develop a model of parking utilization. Where other studies have stopped at modeling parking demand based upon the utilization of existing parking supply, the RSP project went further to develop a robust statistical model that describes parking demand as a complex equation composed of strongly correlated independent and context-sensitive variables.

It is the goal of the RSP team that the new data, research, and tools developed by the project provide the information needed to help developers, financiers, jurisdictions, and neighborhood groups better estimate the optimum amount of parking for new multi-family developments across a wide variety of development contexts. The results are intended for use by practitioners and are made easily accessible through an interactive website tool.

The project team worked with the Center for Neighborhood Technology (CNT) to conduct a thorough literature review of parking supply standards and studies in order to determine the current state of knowledge and inquiry surrounding the balance of parking supply and demand. This initial survey of accepted standards most often used to guide parking supply indicates that they are typically based on a single independent variable — unit count — and do not account for independent variables such as building type, transit and land use factors.

The incorrect application of existing parking data has been criticized both locally and nationally and has been identified as a major barrier to successful transit-oriented development. As a case in point, the ITE manual continues to be used as a standard for determining parking supply. However, these guidelines consider only the number of units in a building in its parking supply calculation and draw from mainly suburban data gathered in the 1980s.

The RSP team compiled an overview of current statistical methods for estimating parking demand and studied new models aimed at linking contextual factors, such as sociodemographic characteristics, to parking demand. The literature review included many studies that begin to address and model the relationships between parking demand and contextual variables such as household characteristics, housing type, qualities of the built environment, and parking price. Additionally, data sources that assess auto ownership or vehicle availability were reviewed to ascertain the extent to which vehicle ownership could serve as a proxy measure for estimating parking demand.

The RSP Literature Review can be found at:

http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/rsp-litreview_11-2011.pdf

Background research findings

The RSP team laid the foundation for the development of the research methodology by conducting a thorough literature review (see sidebar) to determine the current state of the industry methods for estimating parking demand. The findings of the literature review indicated that parking supply requirements and guidelines are typically not tied to demand and that there is currently no clear understanding of the factors contributing to parking demand.

The team reviewed multiple studies indicating that there is often a measurable oversupply of parking in multi-family buildings. This phenomenon is often caused by a combination of factors: developer overestimation, financier requirements, and/or jurisdictional parking requirements. The review of these studies clarified that the importance of considering parking demand is widely recognized while the impacts of contextual factors, although documented in many cases, are still debated. The two largest identified gaps were 1) a lack of consensus on factors that influence demand for parking; and 2) omission of data on parking availability, cost and pricing.

It was clear to the team that the tools and methods that have informed parking supply regulations in the past are often not appropriate for guiding parking supply decisions for new development in King County today. The literature review included several studies that have begun to establish a meaningful link between parking demand and a range of building and site characteristics. These initial findings served as the basis for the development of the RSP model.

RSP Research Guiding Principles

- Scientific approach
- Based on data and statistical analysis
- Local data with hyper-local applicability
- Relevant to community goals
- Actionable
- Support policy change, informed participation in project review and investment/development decisions
- Designed to support creation of interactive web tool

Methodology development

The RSP team set out to design the research to address the gaps in understanding regarding parking demand and vehicle availability uncovered during the literature review. A primary goal of the RSP study is to provide clarity on these issues in the form of practical tools for use in development and policy discussions. The literature review served as the basis for drafting the research methodology, which was vetted by a Methods Review Committee.

Methods Review Committee

The RSP team assembled a Methods Review Committee to assist with developing and vetting the research methodology. The committee consisted of a panel of parking experts, including national and local academics, practicing professionals, leaders of the urban planning and engineering fields, and ITE members.

Methods Review Committee

Cynthia Chen, University of Washington

Donald Shoup, University of California Los Angeles

John Holtzclaw, Sierra Club

John McIlwain, Urban Land Institute

Jeffrey Tumlin, Nelson\Nygaard

Robert Cervero, University of California Berkeley

Ransford McCourt, DKS Associates

Rachel Weinberger, University of Pennsylvania

Richard Willson, California State Polytechnic University

Steffen Turoff, Walker Parking Consultants

The Methods Committee worked to ensure that the RSP research methodology met the highest academic and industry standards, honored the budget allocation, and provided statistically significant and replicable results.

Comments and input from the Methods Review Committee were integrated into the final research methodology documents, which documented background research, outlined the research objectives, and provided a road map for project development.

RSP Methodology Overview

Literature review

Draft methodology

Vet with methods review committee

Select sites

Collect data: on-site parking inventory counts, assembly of physical building and pricing information

Modeling: independent variable data collection, statistical analysis, and model development to predict parking demand
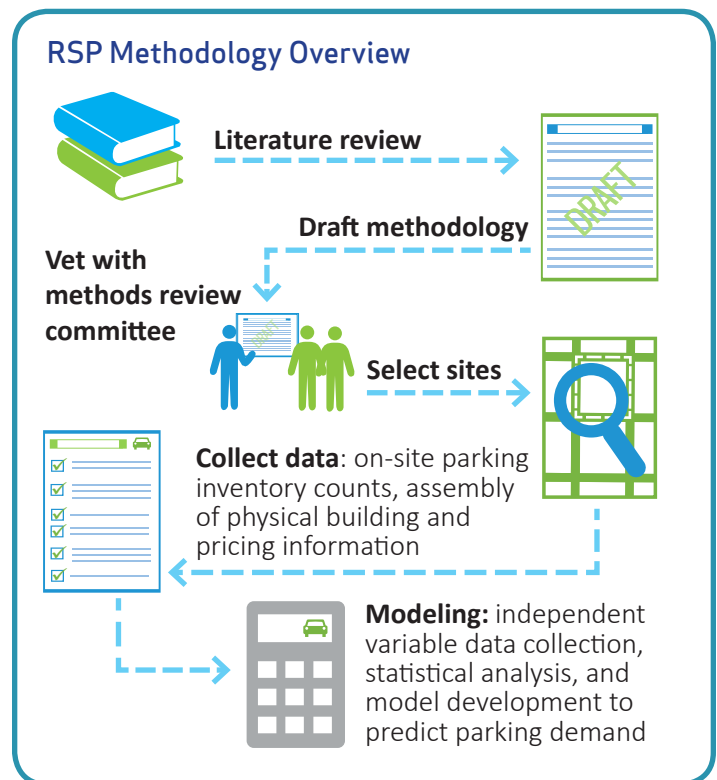
Site selection and data collection

Site selection process

Convenience and quota sampling techniques were used to assemble a total of 223 multi-family sites representing various types of multi-family development around King County, Washington. Study sites were chosen to provide a well-distributed sample of the dependent variable and many of the site-specific independent variables used to generate the RSP model.

The geographic location of eligible properties was defined to ensure that the sample was focused in areas where future multi-family residential development could potentially occur. Within the defined boundary, eligible sites included multi-family residential properties with a minimum of ten units either leased as apartments or sold as condominiums. For properties that contained a mix of uses, only the residential portion of the parking supply was studied.

Numerous developers, property owners, and property management companies were asked to participate in the data collection effort. Targets to ensure a representative sample were established based on transit connectivity, employment access, average medium gross rent, and average median household income.
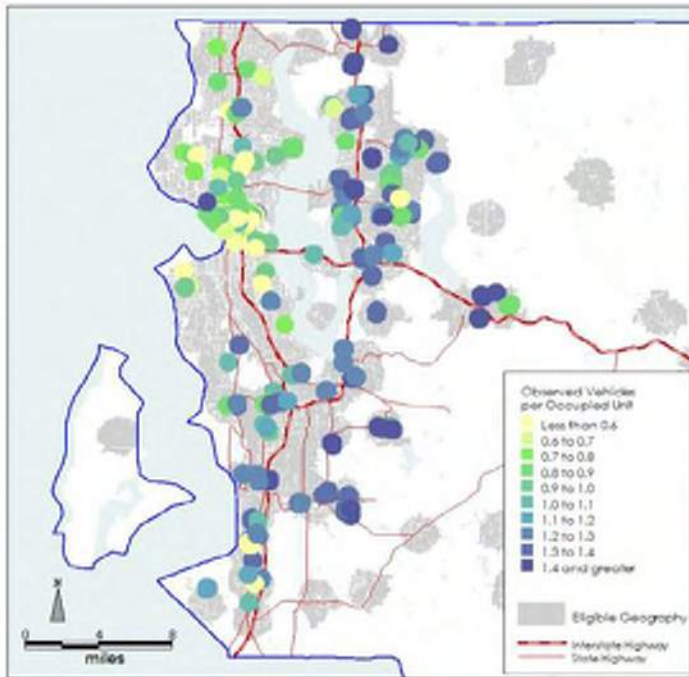
Fig. 1: Observed Vehicles per Occupied Unit.

Field counts

The RSP team collected data for 33,166 occupied apartment units throughout King County accompanied by 46,420 residential parking stalls (32,608 of which were observed to be occupied with vehicles). The field counts required at least two visits to the site: an initial visit to meet with the property manager and discuss data needs, and a second to perform the parking utilization count. The parking utilization count followed the Institute of Transportation Engineer's Parking Generation Manual method of counting between the parking peak hours of 12:00 a.m. and 5:00 a.m. on weekdays only for multi-family land uses.

The sample represented a range of parking types but included all residential parking, including visitor parking, identified by the property manager at each multi-family development. Parking was generally provided in off-street garages or lots located on the multi-family parcel, but some parking was located in dedicated on-street stalls or satellite garages.

Sites selected for the study were screened for building age and available parking supply to control for potential under-supplied parking where constrained supply made actual demand unknowable. The end result was the identification of 223 sites for which parking utilization could be measured via parking counts, and the exclusion of sites for which undefined off-site, on-street parking may have resulted in underrepresentation of parking use. The initial 223 sites were cut to 208 sites, as explained later in this document, in order to eliminate statistical outliers.

RSP data collection summary

What did we find?

The RSP team found that, on average, parking is supplied at 1.4 spaces per dwelling unit but is only used at about 1 space/unit.

What does this imbalance mean?

When these average supply and utilization findings are applied to a typical suburban project with 150 units, roughly $800,000 would be wasted on unused parking. This estimate assumes a conservative construction cost of $15,000/stall .
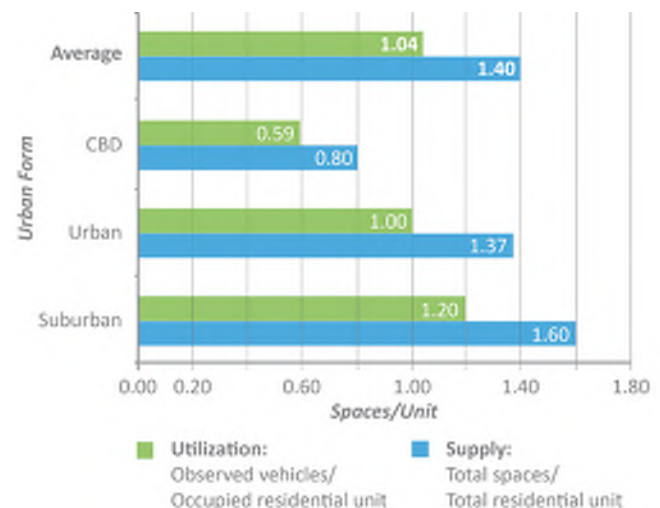
Fig. 2: Observed Vehicles per Occupied Unit as a function of urban form. Both parking utilization and the gap between parking supply and demand tend to be greater in suburban areas on average.

Parking oversupply by the numbers:

Oversupply of parking adds unnecessary cost to project development and inefficient use of land:

- Excess surface parking can add $2 per foot to annual unit leasing cost (@ $8,000 per stall)

- Excess garage parking can add $6.00- $7.00 per foot to annual unit leasing cost (@ $30,000 per stall)

- For a typical affordable housing development, adding one space per unit increases leasing costs by about 12.5%; adding two parking spaces increases leasing costs by about 25%

Data modeling

Modeling parking utilization, dependent variable

The dependent variable used in the model estimating parking utilization was "observed vehicles per occupied residential unit" collected from the field data. This dependent variable analysis was comparable to the approach of some of the studies included in the literature review. However, the RSP study sought to determine the effect of contextual factors on parking demand in addition to the much more basic number of housing units.

Modeling parking utilization, independent variables

The RSP project went beyond modeling parking demand based on the utilization of existing supply per each unit of housing by also considering the effects of a host of other potential independent variables. The collection of the primary parking utilization data enabled a unique statistical analysis and the development of a model for predicting parking utilization at multi-family residential developments. Based on the field data, the Center for Neighborhood Technology used regression analysis to test a set of independent variables and to create a statistical model that would identify the building and environmental characteristics that best described the relationship between parking utilization and demand.

During the regression analysis and model development process, over 100 distinct potential independent variables grouped into five categories—parking supply and price, property/development characteristics, neighborhood household characteristics, accessibility, and built form characteristics — were analyzed, enabling the consideration of the greatest number of possible variables to create a complete picture of the primary factors contributing to parking demand. These external data were collected from a variety of sources, including the American Community Survey, the King County GIS Center, Zipcar, and Walkscore.

Because one variable can be represented in many different formats using different metrics, an extensive list of potential explanatory variables was analyzed. For example, while it was expected that transit access would correlate with parking utilization rates, the best measure of transit access to explain utilization rates was unknown, so several different kinds of transit access measurements were included in the study.

Parking supply as a variable

Parking supply is often cited as one of the most important variables in determining demand, and many past studies have found a high correlation between the two factors. A similarly high correlation was found in the RSP research data, indicating that it should be included in the model.

However, estimating parking utilization for the purposes of informing supply decisions should not be a function of supply. Parking supply was ultimately excluded from the model because its inclusion addresses a different research goal. The RSP research objective was to estimate the full quantity of parking that would be demanded at a given property in order to help inform a decision on the amount of parking that should be supplied at that location. Therefore, it was not desirable for the model to take into account situations for which parking utilization was low because of inadequate supply rather than low demand.

If supply were to be included in the regression model, its coefficient would indicate the effect of parking supply on usage, conditional on the other observable characteristics included in the model. Therefore, parking supply was excluded as an independent variable from the model.

Regression analysis

Because the regression analysis began with the presumption that the ordinary least squares (OLS) transformation would provide the optimal approach, a simple linear regression model was used at the outset of the modeling effort. However, because relationships between the dependent and independent variables were not all assumed to be linear, all variables were tested using various transformations (e.g. natural log, inverse, square root, etc.). Variables were tested for their correlation with the dependent variable as well as for the form that provided the best and most logical fit.

To construct the regression analysis, many approaches were tested to find the best method of including, removing, and ultimately assembling the best set of variables. In the end, the goal was to find the set of variables that provided the most robust theoretical framework while remaining relevant from a practical development and planning standpoint, keeping in mind that the resulting formula must ultimately be applied and made accessible via an online tool.

Maintaining the criteria that all variables be significant (the probability that the coefficient is non-zero, or $p < 0.05$) and all multicollinearity be low (as assessed through variance inflation factors, or VIF values, less than 5) was considered throughout the modeling process. Because each factor or characteristic was represented using many independent variables (as well as multiple transformations of each), multicollinearity, or a high level of correlation between independent variables, was an important consideration.

The most effective modeling approach identified, which served as the basis for the parking utilization model, began with a set of variables that appeared in the highest-scoring results of multiple approaches. A stepwise method was used, with an entry criterion of 0.05 and a removal criterion of 0.10.

Variables were then considered based on their logical candidacy from a planning or development context. For example, for a case in which a variable representing the count of three-bedroom units was included in the final set of variables in the absence of any other count or average number of bedrooms, the three-bedroom unit count was removed and variables pertaining to average bedroom counts were added and tested in a stepwise method. Or, if two variables had high collinearity, such as block size and the transit connectivity index, one was removed and various variables were tested to replace the other.

Throughout the modeling process, outlying cases were tested to ensure that no single property was significantly influencing the fit. Sample properties, or cases, with high leverage values (approximately > 0.5) or outlying residuals (as identified through separated tails in a residual histogram) were removed from the sample. In the end, 15 cases were removed based on these criteria, resulting in a final sample size of 208 properties.

Further details on the regression analysis can be found in the RSP Technical Memo (see sidebar to left).

Results and summary of findings

The final model derived from the regression analysis incorporated seven variables – five pertaining to the property or development characteristics and two describing the built environment (these variables are described in further detail on p. 12). The final equation for the model is:

$$P_u = b + \sum_{i=1}^{7} C_i X_i$$

where P_u is the modeled value of the parking utilization, b is a constant term, C_i is the coefficient for the "ith" variable (derived from the regression equation), and X_i is the value of the "ith" variable representing a location or building characteristic.

Parking utilization was found to be correlated to individual building characteristics as well as to the neighborhood in which the building resides. In other words, parking utilization cannot be determined from the characteristics of the building alone, nor from the setting alone. To understand and accurately assess parking needs, both building type and location must be considered in tandem.

RSP independent variables

CNT identified seven variables that produce a combined R-square value of 81.0%, an adjusted R-square of 80.3%, and a standard error of 0.16: Table 1 identifies the seven independent variables as well as their individual R-square and stepwise R-square values. Individual R-square values represent the correlations between the given variable and the dependent variable. The stepwise R-square values represent the improved R-square value as each variable is added to the final model.

Independent variable	Individual R Square	Stepwise R Square
Gravity measure of transit frequency	55.5%	55.5%
Percent of units designated affordable	27.6%	67.1%
Average occupied bedroom count	34.3%	73.7%
Gravity measure of intensity (population + jobs)	53.3%	76.2%
Units per residential square feet	17.1%	78.7%
Average rent	6.7%	80.0%
Parking price as a fraction of average rent	18.1%	81.0%

Table 1: Independent Variables and Summary of Regression Results.

Figure 3 illustrates the final fit of the observed or measured data as compared to the predicted model results.
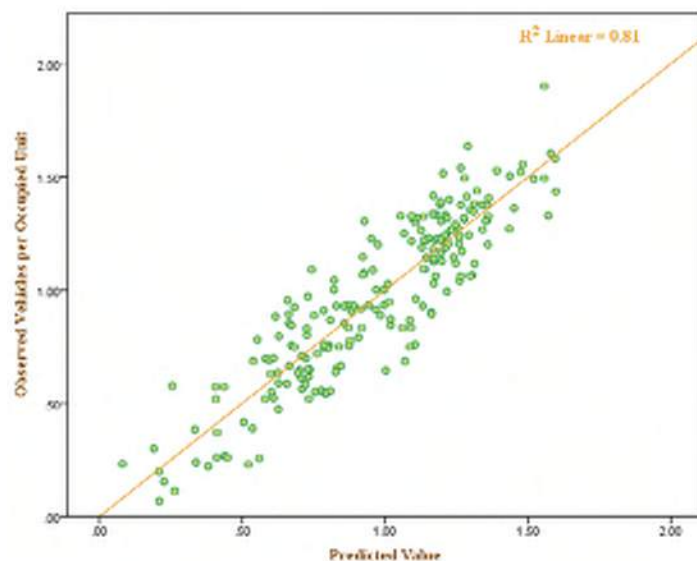
Fig. 3: Observed vehicles per occupied unit versus modeled value.

Limitations

The final model resulting from the RSP regression analysis can help to support and guide decisions about parking supply and management. However, it cannot provide definitive answers about specific future policies or developments. Rather, the model is intended to serve as a resource to inform discussions as users weigh the factors affecting parking use and consider how much parking is needed.

Model estimates and data collection

Although the final model is statistically very strong, it is important to keep in mind that it represents an estimate, which by definition has inherent limitations. Real-world parking use can and will vary from RSP estimates for many reasons. For example, some property managers provide transit passes to building residents as a transit demand management (TDM) strategy, which is likely to reduce the demand for parking in those buildings beyond what the RSP model estimates.

Limitations on data collection also affect the model's accuracy. For the most part, observed parking included supply that was on-site and off-street, unless additional resident parking was noted by property managers. The sites selected for the study were screened based on building age and available parking supply to control for potential under-supplied parking that could result in spillover and unmet on-site parking demand. The result was that the sites studied were those for which parking could be measured through parking counts rather than those for which undefined off-site parking would have resulted in an underrepresentation of parking demand.

Due to a lack of on-street parking data and limitations on scope, this research was not able to fully account for on-street parking supply, occupancy, and pricing in the modeling of off-street multi-family parking. Using neighborhood on-street parking counts and resident surveys, future research opportunities exist to establish a more comprehensive understanding of multi-family parking demand.

Additionally, the data collected and utilized in the model represents a single point in time. As factors related to both the built environment and parking usage change (e.g. expanded transit service), the independent variables may need to be updated and their relationships to the dependent variable (parking utilization) reassessed.

RSP Independent Variables
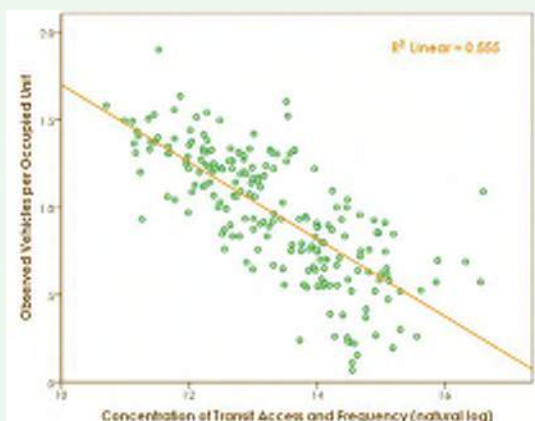
Fig. 4: Gravity measure of transit frequency.
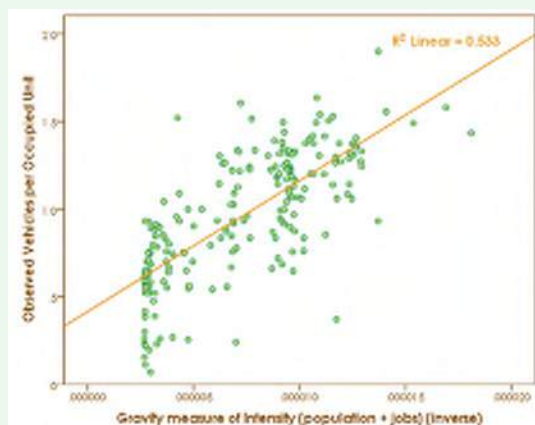
Fig. 5: Gravity measure of intensity (jobs + population).
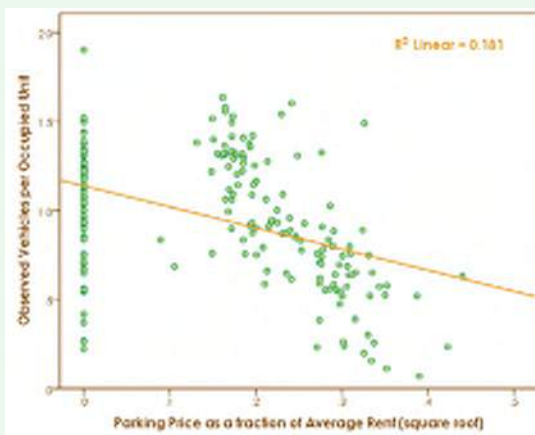
Fig. 6: Parking price as a fraction of average rent.

1. Gravity measure of Transit Frequency

Gravity measures take into account both the quantity and proximity of the factor being measured. RSP data indicated a strong correlation between concentration of transit frequency and observed vehicles per occupied unit. Transit concentration was able to serve as a proxy for many other built environment factors.

2. Percent of Units Designated Affordable

This variable includes all units identified as affordable by any designation as a percent of all units (regardless of occupancy). RSP data indicated that as the percent of affordable units increases, parking utilization decreases.

3. Average Occupied Bedroom Count

Average occupied bedroom count is the average number of bedrooms in all occupied units. To calculate this average, studio units were assumed to have a bedroom count of one. RSP data indicates that the average count of bedrooms has a positive correlation with parking utilization: as average bedroom count increases, parking utilization increases.

4. Gravity measure of Intensity (Population + Jobs)

Previous research often found a strong correlation between both residential density and job access with auto ownership. The strong correlation of the gravity measure of intensity and observed vehicles per occupied unit observed in the RSP data supports these findings.

5. Units per Residential Square Feet

Obtained from the property managers, units per residential square feet is calculated as total residential units divided by the residential square feet of the development. RSP data indicates that as units per residential square feet increase, or as average unit size decreases, parking utilization decreases.

6. Average Rent

Average rent (measured in dollars) represents the average monthly cost of all residential units in the building. RSP data indicates that observed parking utilization increases as average rent increases.

7. Parking Price as a Fraction of Average Rent

Parking price as a fraction of average rent is calculated as the monthly price of parking per stall divided by the average monthly rent. RSP data indicates a negative trend, revealing that as parking price increases, parking utilization decreases.

Model coverage

To ensure confidence in the model estimates, limits were established for the coverage area. The sample utilized for data collection covered a wide range of built environment characteristics and land uses, but it did not cover the full spectrum found throughout the county. Therefore, the coverage for which model estimates were calculated was limited to the range of built environment characteristics found in the data collection sample. In other words, areas of the county that had lower transit service, population, or job concentrations than those found within the RSP research sample were removed from the coverage area.

Applications

A principal goal of the RSP project is to provide stakeholder access to the research. The King County Multi-family Residential Parking Calculator, which is described in detail in the following chapter, condenses the project's complex research findings into a simple map-based format accessible to a wide variety of stakeholders. Using the RSP model to estimate parking utilization, resulting outputs for most developable parcels in King County, Washington are clearly illustrated on this interactive, mapping website.

Conclusions

The RSP project provides analysts with new tools to consider the proper provision of parking, given several land use, transit and walk factors. Block size, population and job density, and walk and transit access to trip destinations influence parking utilization, in some cases by as much as 50 percent. They provide clear indication of where parking for low auto ownership characteristics can be applied. CBD multi-family parking utilization of 0.51 vehicles per occupied dwelling unit in the sites studied, compared with suburban 1.18 vehicles per occupied dwelling unit, indicates that accommodations and environments conducive to low- and zero-auto-ownership households correlate with reduced need for parking. Economic and pricing considerations were also found to matter, including average rent units, the share of units that are affordable, and the price charged for parking.

Background and goals

A principal goal of the RSP project is to provide stakeholder access to the project research. To achieve this goal, the RSP team used the project data and conclusions to design and build an easy-to-use web calculator tool that can provide useful information and guidance for the broad spectrum of RSP stakeholders and potential users. The web calculator is a map-based tool that provides place-specific estimates of parking demand at the parcel level. The web tool has been designed to demonstrate RSP research findings, illustrate the influence of the identified predictive factors, and present data that multiple stakeholders will find valuable in their efforts to right-size parking supply.

Design and function

In order to achieve the project outreach goals, King County Metro partnered with the Center for Neighborhood Technology (CNT) to create a dynamic website with the ability to estimate multi-family residential parking demand across King County. The multi-family residential parking demand information provided by the calculator can be used for both policy guidance and market research.

Data-based

The calculator is based on the RSP model developed during the research phase of the project, which was created using local data of actual parking use collected in 2012 at over 200 developments in urban and suburban localities across King County, Washington. The interactive calculator tool uses the RSP statistical model to estimate parking use for multi-family developments throughout King County in the context of specific sites. The parking use data is correlated with factors related to the observed building, its occupants, and its surroundings - particularly concentrations of transit, residents and jobs, as well as the price charged directly to the users of parking. Using best available research findings and industry-accepted rule of thumb assumptions, additional impacts were estimated to highlight the associated 'costs' of parking, which are displayed as part of the web calculator interface.

King County Multi-Family Residential Parking Calculator
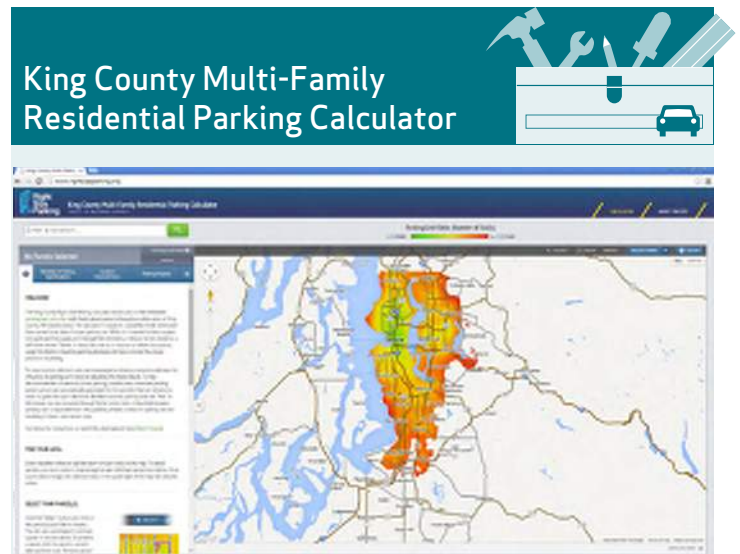
Figure 7. Screenshot of the King County Multi-Family Residential Parking Calculator.

To highlight the importance of parking price and presence of affordable units on parking utilization, the calculator automatically calculates and displays the different parking utilization estimates for two scenarios: a given parcel and building with 1) parking pricing bundled with or unbundled from rent, and 2) 100% affordable units or no affordable units. Additional calculator functions include:

- Viewing estimated parking/unit ratios for multi-family developments in urban King County, WA

- Creating scenarios for a specific parcel or custom area by inputting variables particular to a proposed development (instead of relying on default values representing development averages), such as number of units, unit type and size, and average rent

- Adjusting scenarios for contextual factors such as concentration of population, jobs and transit service to estimate parking use if neighborhood characteristics were to change in the future

- Comparing the impacts of alternative parking scenarios, including information about cost, greenhouse gas (GHG) emissions and estimated vehicle miles traveled (VMT) of building users

See the following pages for step-by-step instructions on how to use the web calculator tool. The King County Multi-family Residential Parking Calculator is online at:

http://www.rightsizeparking.org/

Web Calculator Overview

Calculator basics

The King County Multi-Family Residential Parking Calculator is a map-based web tool that helps users estimate parking demand for multi-family developments at specific sites. The calculator can help analysts, planners, developers, and community members weigh factors that will affect parking use at multi-family housing sites and determine how much parking is "just enough" when making economic, regulatory, and community decisions about development.

The RSP web calculator can be accessed online at: **www.rightsizeparking.org**

How to use the King County Multi-Family Residential Parking Calculator:
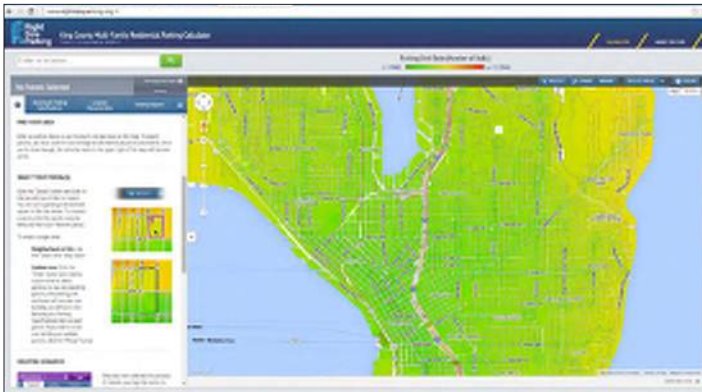
Enter an address or use the zoom tool to find an area of interest.

Select an individual parcel using the "Select" arrow tool.

1 Find your area

Enter a location or use the zoom and pan tools on the map to zoom in to the area of interest. When zoomed in close enough, individual parcels boundaries will become visible and the selection tools in the upper right of the map will become active.

2 Select your parcels

Click the "Select" button and then click on the parcel(s) of interest. A parking/unit estimate will appear in the calculator box. Parcels can be added to or subtracted from a selection using the "Select" tool. A larger area, such as an entire neighborhood or city, can be selected using the "Select Area" drop down menu.

Parking demand can be estimated for a custom area by using the "Draw" tool to select multiple parcels. In a custom calculation, the parking/unit estimates assume that one building will be assigned to each parcel. The "Merge" tool allows users to assign one building to multiple parcels.

Select multiple parcels or draw a custom area if desired.

3 Create scenarios

Once the parcel(s) of interest have been selected, the default inputs are shown and can be adjusted using the "Building and Parking Specifications" and "Location Characteristics" tabs. Two preset scenario options (unbundled parking and affordable housing) are provided on the "Building and Parking Specifications" tab to provide a starting point for developing custom scenarios.

Adjust default inputs under the first two tabs.

Enter building and parking specifications.

Make adjustments for location characteristics.

4 View results

Parking/Unit Ratio: The calculator tool displays the estimated parking spaces per residential unit for the selected building(s), or the parking/unit ratio. When multiple parcels are selected, an average is displayed. The calculator also provides additional information about the selection, such as parcel data and the estimated parking use ratio for the selected parcel(s).

Parking Impacts: This tab provides average parking construction costs and estimated vehicle miles traveled (VMT) as well as greenhouse gas (GHG) emissions based on the amount of parking supplied.

Selection Info: Click the up arrow in the bottom right of the map screen for trip generation reduction estimates and Census data on average commute distance and journey to work mode split.

View parking use estimates and impacts.

User interface

The RSP web calculator condenses complex research findings into a user-friendly, map-based format accessible to a wide variety of stakeholders. The tool allows users to apply the RSP statistical model to real-world scenarios, whether it be planning at the neighborhood level or designing and financing a building at the parcel level.

Outputs for most developable parcels in King County, Washington are illustrated on this interactive website calculator. Users have the ability to select a parcel, input details specific to a proposed development (replacing the default values that represent development averages), adjust factors of the built environment, and view the resultant parking utilization estimate. Users can also adjust scenarios using variables related to a specific site and its location, including proximity to transit, jobs and/or population.

This ability to adjust variables enables users to compare the impacts of alternative scenarios in order to weigh factors that will affect parking use at multi-family housing sites when making economic, regulatory, and community decisions about development.

When variables are entered, the calculator displays the impacts of creating the stated amount of parking, including: total capital costs of parking, monthly costs per residential unit, annual vehicle miles traveled (VMT) of building residents, and greenhouse gas (GHG) emissions from building construction and maintenance as well as from the vehicle use of residents. Understanding the variables influencing parking supply and demand helps users to determine how much parking is "just enough" for a particular site.

Built-in scenarios

RSP research found that parking pricing and the presence of affordable units are two factors that have a pronounced effect on parking utilization. In order to highlight these findings, the website includes two "built-in" scenarios that automatically calculate and display the different parking utilization estimates for a given parcel and building with:

- Parking pricing bundled with or unbundled from rent, and
- 100% affordable units or no affordable units

Who benefits and how?

Developers, public decision makers, and communities will all benefit from the King County Multi-family Residential Parking Calculator.

Developers and financiers: Decreased costs of housing development, ownership, rental and operation

Action: Right-size new developments; build more housing near transit and sell it for less

Jurisdictions: Improved pedestrian environment, walkable neighborhoods, and transportation choices

Action: Adjust code to reflect findings

Neighborhoods: Improved pedestrian environment, transit operations and efficiency; decreased housing costs

Action: Community participation in the development process

Users and intended applications

Calculating parking use at multi-family developments can help provide information to users that can guide and inform decisions on building and managing parking. The calculator can help analysts, planners, developers, and community members weigh factors that will affect parking use.

The calculator can also be used as a resource to inform discussions and help consider the proper provision of parking. With updated context-sensitive information on parking demand, the calculator allows communities to regulate development in a way that meets both local and regional goals.

This new approach provides public and private sector practitioners with information and tools to better align parking supply with demand, preserving resources and supporting a range of community goals including transit-oriented development and housing affordability. The tool also facilitates developers in building more housing, especially affordable housing, in areas well-served by transit.

While the web calculator tool is intended to help support and guide parking supply and management decisions, it should not be viewed as providing a definitive answer on parking provision. Rather, it should be seen as a resource for informing discussions and weighing the factors impacting parking demand.

USER TESTIMONIALS RSP WEB CALCULATOR

Web calculator users representing both municipal and developer stakeholder groups provided the RSP team with feedback on the utility of the interactive RSP tool:

City of Kirkland

"The City of Kirkland used the King County Multi-Family Residential Parking Calculator to help draft new parking requirements for multi-family zoning districts within the City. The parking calculator was fundamental in establishing a baseline parking requirement, which we then modified based on additional parking information and policy direction from City officials."

- Jon Regala, Senior Planner, City of Kirkland Department of Planning and Community Development

William Popp Associates

"The tool has been very helpful in our parking demand studies for predicting demands for multi-family apartments in urban settings with abundant public transportation and nearby shop, restaurant, and socio-recreational opportunities. We have found the tool very useful in that we can narrow down our study area to a parcel specific condition or expand out to a larger block area or neighborhood community when predicting demand. Previous data sources for parking demand are often all-encompassing, and they are often only stratified into urban and suburban areas. In general, the tool has been very useful in our recent parking analysis endeavors, particularly in urban settings."

- William Popp Jr., Transportation Engineer

Beacon Development Group

"As a development consultant to non-profits building affordable housing, Beacon used the Right Size Parking calculator to help one of our clients plan for the amount of parking needed by their new mixed-use project. The tool is very easy to use, and it gave us a firm number to start from so that our client could formulate a parking plan during project development rather than simply react to parking needs after the project was completed."

- Boting Zhang, Housing Developer

Capitol Hill Housing

"The King County Multi-Family Residential Parking Calculator web tool has been a great resource for advocacy about parking in our neighborhood of Capitol Hill. Capitol Hill is a dense urban neighborhood in which many residents do not own a car and large households only own one car. Many developers, new to the neighborhood, are skeptical of the low parking demand or need hard evidence to show during their financing negotiations.

King County's parking calculator, and the research behind it, has provided that evidence. We can sit down with developers and pull up recommendations for their specific site, mix of unit sizes, levels of affordability, and the price they are planning to charge. Working with the parking calculator results in lower, more realistic parking ratios in new buildings. Increasingly, new developers have already consulted the parking calculator before we meet with them.

The calculator is also helpful for assuaging neighborhood fears about parking spillover. The tool allows everyone to easily access accurate information about parking demand and make informed decisions."

- Alex Brennan, Senior Planner

City of Renton

"The ability to compare the City's regulations with RSP findings allowed City staff to verify that the adopted City parking regulations were appropriate. The ability to compare our regulations to such an extensive study instead of simply comparing to neighboring jurisdictions gave City staff the confidence that our parking numbers were appropriate for the development patterns in Renton. "

- Vanessa Dolbee, Current Planning Manager, Community & Economic Development Department

Usage cases and stakeholder input

During its initial two years of use, the calculator website has seen constant use, with visits originating from across the country. The most frequently performed actions by visitors to the RSP web calculator include running the model and viewing the information tabs that allow for user scenario adjustments and display information about parking impacts. Of these tabs, the Building and Parking Specifications tab has been most highly utilized.

King County Multi-Family Residential Parking Calculator usage statistics (Feb 1, 2013 - Feb 1, 2015)

Total Events & Unique Events by Event Category		
Run Model	40,017	2,834
View Tab	27,856	10,104
Update	5,667	1,412
Location Search	2,233	926
Total & Unique Events by Event Action		
Building/Parking Specs	4,152	1,174
Location Specs	758	331
Parking Impacts	757	383

Demonstration Projects

Introduction

The final stage of the RSP project consisted of the development and implementation of pilot demonstration projects with local partners. The project team engaged seven demonstration pilot project partners, including both local jurisdictions and property owners, to put RSP research into practice through policy and management pilots. Pilot project partners were selected through a competitive bid process.

The **policy-based pilots** were designed to align jurisdiction parking regulations with regional goals for vehicle miles traveled (VMT), housing affordability, and greenhouse gas (GHG) emissions. Four King County cities - Kent, Kirkland, Seattle, and Tukwila - were selected as partners and worked with the RSP team to analyze potential policy changes.

The **management-based pilots** utilized innovative Transportation Demand Management (TDM) strategies, including parking pricing and incentive strategies, to test parking management scenarios. The partners for the management pilots included Capitol Hill Housing, an affordable housing provider; El Centro de la Raza, a community-based civil rights organization and housing provider; and Hopelink, an emergency services center.

In order to best support and empower these pilot projects, the RSP team developed a set of tools to assist policy makers and developers in understanding the market demand for parking based on location-specific characteristics. These tools, which include the Right Size Parking Model Code, a Parking Requirements and Utilization Gap Analysis, and a Multi-Family Parking Strategies Toolkit, are described in more detail in the following sections of this chapter.

Policy pilots

Pilot funding and technical support to test innovative parking policy approaches were awarded to four partner King County cities: Seattle, Kent, Kirkland, and Tukwila. These pilot projects began in 2014.

The intent of the policy pilot projects was to apply the RSP research findings in order to achieve better alignment between jurisdiction parking regulations and regional goals, such as increased transit ridership and provision of affordable housing.

Policy changes considered by the partner municipalities ranged from reductions in parking minimums for development to parking management strategies, including shared parking and residential parking program reform.
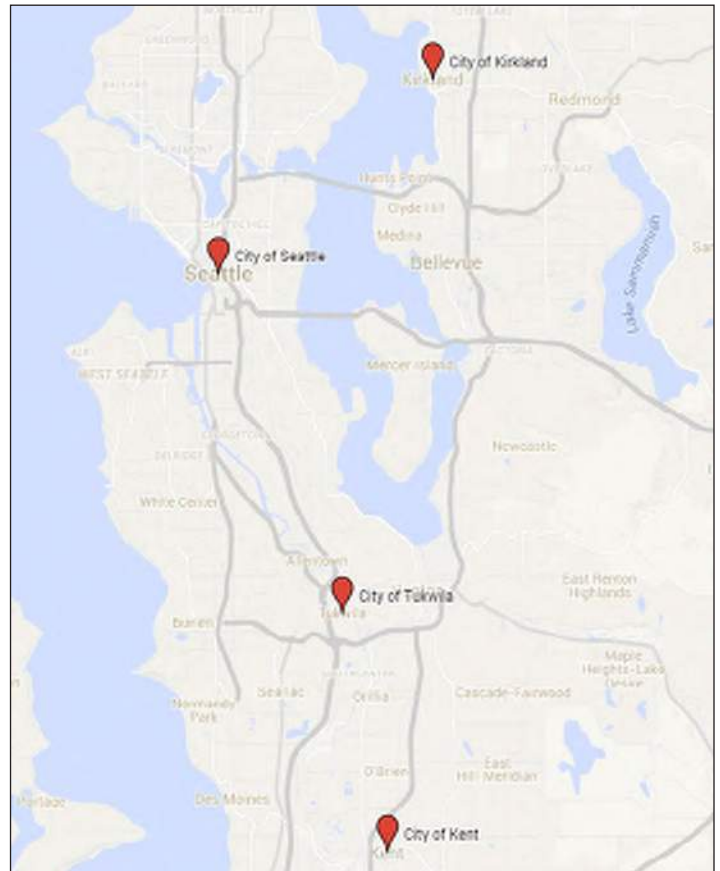
Fig. 8: A map of the Right Size Parking Policy Pilot Project partner locations.

Policy pilot partners

The selected pilot partners worked with RSP staff and consultants to analyze potential policy changes using the RSP web calculator. Both the RSP Model Code and the Parking Requirements and Utilization Gap Analysis were used to provide guidance for the recommendations for each partner city.

Each pilot project had a unique focus based on local issues and context:

- **Kent:** Identify best code and management strategies for mixed-use areas in a suburban context

- **Kirkland:** Establish parking requirements that reflect market demand and prevent spillover

- **Seattle:** Evaluate existing parking policies and programs and explore private shared parking opportunities

- **Tukwila:** Identify parking strategies for the Tukwila International Boulevard Station area; explore the potential for implementing private shared parking

Parking Requirements & Utilization Gap Analysis
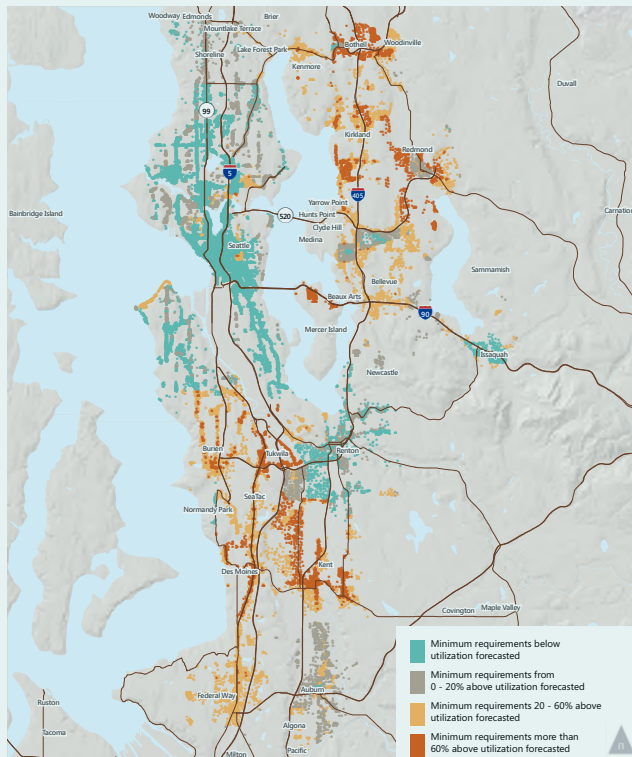
Fig. 9: Data map illustrating the gap between minimum parking requirements and observed parking utilization in King County.

The **Parking Requirements and Utilization Gap Analysis** provides a comparison of local municipal code minimum parking requirements with multi-family off-street parking utilization forecast by the RSP web calculator. The motivation behind this research is that misaligned parking requirements may spur new development to supply more parking than necessary, leading to oversupply and increased housing costs. They can also make it difficult to unbundle the price of parking from rent as it would only lead to a higher parking vacancy rate, but no cost savings.

The analysis indicates that in most King County locations, parking requirements are higher than forecast parking utilization, often by around 50%. More than 82% of King County parcels outside the City of Seattle have minimum parking requirements that are greater than the RSP model utilization. For more information, see:

http://metro.kingcounty.gov/up/projects/right-size-parking/pdf/gap-analysis-7-12-13.pdf

Right Size Parking Model Code

The RSP study found that many parts of King County have established minimum parking requirements that exceed modeled utilization. In many King County municipalities, parking codes may not be up to date with changes in land use, demographics and consumer preferences that have already reduced – and could potentially further reduce – the demand for parking. In some municipalities, parking minimums do not take into account the fact that demand for parking varies based on unit type, occupant income, proximity to transit, or other contextual factors.

In order to address this gap, the RSP team developed the **Right Size Parking Model Code** to help local jurisdictions implement policies that more accurately reflect their stated goals, such as housing affordability and neighborhood walkability. The model code document provides policy options and model code for cities looking to better match their local parking supply with demand using an adaptable, customizable menu of options with an explanation of each policy choice.

The purpose of the model code is to provide a resource for municipalities that are interested in implementing code changes to help right-size local parking supply. The model code draws from several other components of the RSP project, including best practices research, the RSP Technical Policy Memo, multi-family utilization surveys, parking code gap analysis, the RSP calculator, and stakeholder input.

The primary recommendation of the model code is for a market-based approach to parking supply in multi-family buildings and for spillover to be controlled by on-street parking pricing in lieu of parking minimums. The document also provides, as a second best alternative, recommendations for a context-based regulatory approach in which minimums are set based on a comprehensive assessment of neighborhood and project-specific conditions.

http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/140110-rsp-model-code.pdf
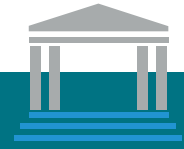
PILOT FOCUS

Parking code adjustments and parking management strategies

CONTEXT

The Kent Downtown area is experiencing tensions as it urbanizes from a suburban retail center to a mixed-use transit node. Large surface parking lots provide public parking free of charge throughout the Downtown, and several arterials traversing the area do not currently accommodate on-street parking.

As new multi-family development integrates with the existing urban fabric, the City of Kent desires to ensure that parking is managed as a valuable resource for livability and economic development within the Downtown area. In order to provide the City with tools for achieving this goal and addressing the transitional tensions affecting Downtown Kent, the RSP team worked to identify parking code and parking management strategies appropriate for this urbanizing, mixed-use area located within a broader suburban region.

RSP FINDINGS

A multi-family parking utilization survey conducted by the RSP team indicated that in Kent actual parking demand is less than what is required by the City's parking codes. When presented with this information, both the City and other project stakeholders expressed interest in exploring strategies for right-sizing the parking supply in Downtown Kent.

RSP RECOMMENDATIONS

The pilot project consisted of the creation of a parking code and parking management strategy that recognize the economic value and cost of parking stalls and support the appropriate prioritization of parking users within a mixed-use context. In general, the project team found the need

Fig. 10: Combined On and Off-Street Peak Hour Occupancies.

for consistent and user-friendly communication of parking expectations and regulations to different user types as well as a need for focused enforcement and management of surface parking, including dedicated employee parking.

Project deliverables included:

- Documentation of existing parking conditions and identification of parking challenges and barriers

- A policy technical memo with code alternatives that are right-sized for Kent's development context

- Prioritized recommendations for parking code adjustments

- A context-specific parking management strategy that supports RSP standards while directly addressing and responding to stakeholder concerns
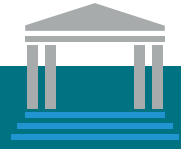
CITY OF KIRKLAND POLICY PILOT

PILOT FOCUS

Establish parking requirements based on actual parking demand

CONTEXT

The Kirkland Planning Commission and Houghton Community Council expressed interest in gaining a better understanding of how the RSP calculator tool results compared with observed multi-family parking utilization in Kirkland. To address this issue, the RSP team compared the results obtained by using the web calculator to observed parking utilization rates collected at 24 multi-family developments across the City of Kirkland.

RSP FINDINGS

The team found that the RSP web calculator generally predicts parking utilization in the City of Kirkland accurately, with most sites within +/-15 percent of the observed value. Using the results of this analysis, the team compiled a technical memo that included recommendations for adjustments in parking requirements that reflect documented parking demand and prevent parking spillover.

The team also found that in certain transit-rich environments, the calculator may overestimate parking utilization due to the sensitivity of the transit score to relatively small differences in walking distances to transit. They determined that it was reasonable to manually adjust the RSP web model accordingly to more accurately consider the availability of high quality transit service in portions of Kirkland.

RSP RECOMMENDATIONS

- Use a unit-based approach to developing parking standards
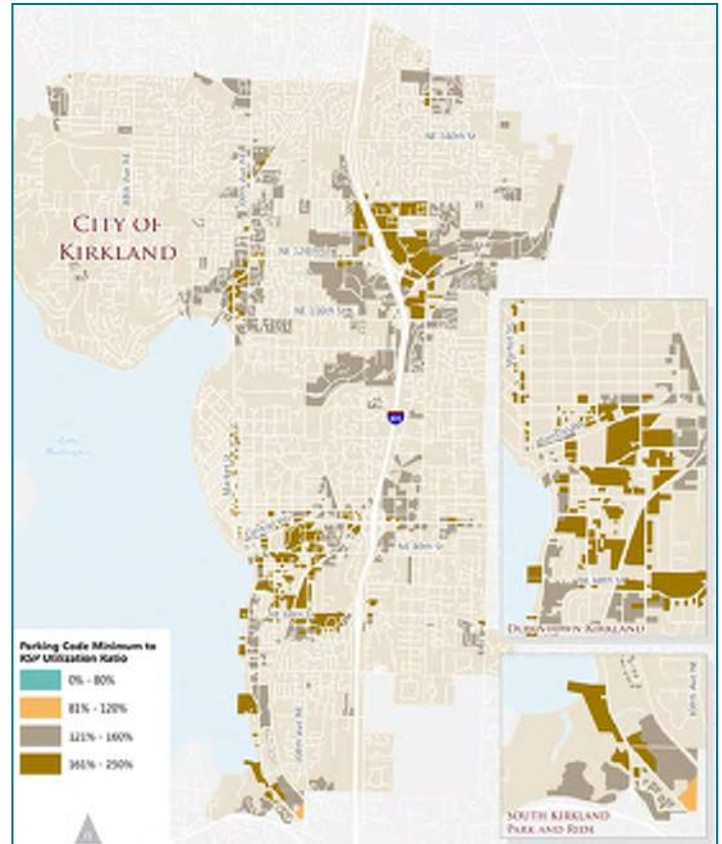
Fig. 11: RSP comparison of Kirkland parking code minimum requirements to RSP utilization ratio.

- Set minimum requirements at or just below utilization rates (may warrant additional on-street parking management)

- Supplement adjustments for parking requirements that respond to transit service with additional on-street parking management strategies

CITY OF SEATTLE POLICY PILOT

PILOT FOCUS
Parking Code Review, Shared Parking Strategies, and Residential Parking Zone (RPZ) Review

CONTEXT

The City of Seattle participated in the RSP pilot to identify methods, including code and policy changes, for better balancing on and off-street parking supply and pricing. This pilot included an evaluation of existing parking codes and policies, an assessment of the existing Restricted Parking Zone (RPZ) program, and identification of opportunities to expand the feasibility of private shared parking. The goal of the project was to develop key revisions to the parking management process, tying together RSP goals of off-street requirements with effective on-street management.

RSP FINDINGS

Parking Code Review: Seattle parking standards are extremely varied, with distinct separations by use types, making it difficult to "right size" parking requirements.

Shared Parking Strategies: Building design can facilitate shared use parking by bringing the parker to a plaza connected to both the street and the building's private space. Signage and wayfinding systems are also important to supporting successful shared use parking.

Residential Parking Zone Review: The number of parking permits issued exceeds the actual supply of parking. The relationship between the cost of on-street and off-street parking is skewed to favor on-street parking, particularly where off-street parking is unbundled from rent.

RSP RECOMMENDATIONS

The RSP team researched each of these issues and produced reports focused on each of the three analytical tasks. It is hoped that these preliminary recommendations will spur discussion around clarifying issues and strategies for making adjustments to the City of Seattle's parking management practices:

Minimum and Maximum Requirements Recommendations

- Consider the context of vision goals for unique areas of the City and develop an encompassing policy

Fig. 12: Signage regulating Seattle's Restricted Parking Zones (RPZs).

Fig. 13: RPZ locations in Seattle.

foundation to "right size" parking everywhere for consistency

- Simplify the parking code by creating broader land use categories

Shared Parking Recommendations

- Research and understand the range of shared use options that could be met within existing parking surpluses

- Establish consensus on those types of shared parking that are acceptable to the City

- Develop communication and facilitation strategies that bring potential shared use partners together

Residential Parking Zone Review Recommendations

- Increase the base price of residential parking permits and shift to monthly permit billing

- Graduate the price of residential parking permits in high-demand neighborhoods

- Modify institutional agreements

- Tie permit eligibility to off-street parking availability

PILOT FOCUS

Private shared parking strategies and on-street parking user prioritization

CONTEXT

The RSP team partnered with the City of Tukwila to perform an "audit" of the RSP web calculator tool to determine how accurately it reflected parking utilization and demand in the Tukwila International Boulevard (TIB) light rail station area. The City also sought parking policy recommendations that would support a walkable, affordable, transit-oriented neighborhood around the TIB station.

RSP FINDINGS

The team found that the RSP model estimates parking utilization accurately for the majority of the selected sites: 15 of 18 sites fell within a 20 percent level of error. On average, apartments in the study area do not share as strong a link between good transit service and lower parking utilization as elsewhere in the County. This relationship is not very strong because current levels of transit service in Tukwila do not vary enough to make a meaningful impact on parking use.

The team found that many businesses actively take measures to prevent non-patron parking in their lots to eliminate spillover. They also found that Tukwila enforces more regulations for non-residential parking than other cities, making shared parking difficult to implement.

RSP RECOMMENDATIONS

Based on the data gathered through the RSP audit, the team worked to identify parking strategies for the TIB station area, including an exploration of private shared parking. The RSP team proposed recommendations and strategies that would enable the City of Tukwila to achieve its vision of creating a welcoming place, supporting equity, and preserving affordabilty. RSP recommendations included:

Fig. 14: Tukwila and SeaTac Study Site Locations

- Reduce multi-family parking minimums
- Develop clear policy language about the purpose and intent of on-street parking
- More directly facilitate the use of shared parking agreements between commercial and/or residential lots for off-street parking
- Create design standards that include on-street parking for new and improved streets
- Continue to monitor occupancy levels at the TIB station and transition the area to transit-oriented development

Management pilots

Pilots to test innovations in parking management, pricing, and transportation demand management to reduce parking demand were awarded to three non-profit partners at multi-family properties in King County: Capitol Hill Housing, Hopelink, and El Centro de la Raza.

The intent of the management pilots is to generate data and case studies that reflect the impact of implementing innovative parking pricing and TDM strategies. In some cases, the RSP team took various approaches to address financial incentives that would support future pricing initiatives. Strategies explored by the partner municipalities included developing shared parking strategies at multiple scales, identifying TDM strategies for affordable housing projects, and applying RSP strategies at multi-family properties with unique federal constraints and requirements. Additional support and funding for the management pilot projects was provided by the Federal Transit Administration.

In response to stakeholder input received during the course of the pilot projects, the RSP team developed both a Multi-family Parking Toolkit and a Multi-family Development Passport transit product for use by multi-family property owners and managers. More information on these tools can be found on the following pages.

Management pilot partners

The management pilots were selected to test RSP concepts aimed at supporting regional smart growth goals of dense, compact development that leads to non-auto mode share growth, thereby promoting affordable housing, transit and other travel alternatives. Three partners were selected through a competitive bid process:

- **Capitol Hill Housing:** Test district shared parking strategies; identify a business model to coordinate shared parking at the neighborhood level

- **El Centro de la Raza:** Identify TDM and parking management tools for a planned affordable housing project using the RSP web calculator

- **Hopelink:** Implement TDM and parking management strategies at senior and low-income properties with unique needs and constraints, including federal restrictions on pricing parking

Multi-family Parking Strategies Toolkit

RIGHT SIZE PARKING
Multi-family Parking
Strategies Toolkit
JANUARY 2015

The **RSP Multi-family Parking Strategies Toolkit** is a guide that presents a set of tools for developers and property managers to use for managing parking supply in multi-family buildings. The toolkit addresses pricing, transportation demand management (TDM) strategies, design, and parking management as well as providing a case study and additional RSP resources.

Some of the tools presented can reduce the amount of parking needed to serve residential demand, resulting in a significant positive impact on project bottom line in terms of both construction costs and rent. Others can increase parking utilization and create new revenue streams.

By encouraging alternatives to driving, these parking strategies can help facilitate transit-oriented development, protect the environment, reduce congestion, and support local businesses. Reduced parking can also earn points in green building ratings systems such as LEED.

The tools in this guide address pricing, transportation demand management, design, and parking management. They can be applied to new developments or existing buildings, and many work best when combined in a multi-pronged approach. A case study that employed some of the recommended tools is included at the end of the document.

The "toolkit" is intended only as an overview of the best tools. Further details on implementation can be obtained from widely available publications or from a parking or transportation demand management expert.

The Multi-Family Parking Strategies Toolkit can be found online:

http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/multifamily-parking-toolkit.pdf

CAPITOL HILL HOUSING MANAGEMENT PILOT

PILOT FOCUS

District shared parking strategies and business model

CONTEXT

Capitol Hill Housing (CHH), an affordable housing provider, engaged the RSP team to develop district shared parking strategies in the Pike/Pine corridor of Seattle's Capitol Hill neighborhood as a means of managing oversupply. Shared parking fits strongly within Capitol Hill's EcoDistrict program and supports neighborhood goals of developing neighborhood-scale strategies that benefit the environment while increasing housing affordability. The RSP team analyzed current Pike/Pine parking practices and economics, reviewed best practices case studies, and provided next steps toward the creation of a district parking system. The team identified a business model that could be used to coordinate shared parking at the neighborhood level.

RSP FINDINGS

CHH carried out the bulk of the data collection and research, drawing upon its long-standing neighborhood relationships to identify and recruit initial participants for pilot leases. The team conducted focus groups with residents as well as with owners and property managers to help develop and test the pilot lease agreements. The team generally found that neighborhood stakeholders strongly support transitioning to a shared parking system. Stakeholder interviews revealed the following findings:

- Developers supply excess parking to reduce risk of a shortage; if that risk could be mitigated through shared parking strategies, parking ratios could be reduced

- Employers are concerned about the cost of employee time spent searching for parking

- Residents parking on the street tend to base parking decisions on price rather than on time spent looking for or walking to and from a more distant location

RSP RECOMMENDATIONS

The RSP team developed a four-step approach toward creating a district parking system in the Pike/Pine corridor. The progressive process, which describes an evolution from a relatively simple "Broker" model to a more complex and dynamic "Internet of Parking" model, would allow CHH to make adjustments gradually and minimize risk (see Fig. 15). Specific recommendations were made at each step regarding operations, responsibilities, and technologies.

The final report for this pilot can be accessed online:

https://capitolhillecodistrict.org/projects/pike-pine-shared-parking/

DISTRICT SHARED PARKING BUSINESS MODEL PROGRESSION

	Broker	Smart Broker	Intranet of Parking	Internet of Parking
Buyers	Residents, Buildings	Broker Plus Businesses	Same as Smart Broker	Smart Borker Plus Visitors
Data Collection Method	N/A	Automated	Same as Smart Broker	Same as Smart Broker
Data Collection Times	N/A	Real Time	Same as Smart Broker	Same as Smart Broker
Space Assignment	Assigned	Unassigned	Same as Smart Broker	Same as Smart Broker
Garage Assignment	Assigned	Same as Broker	Unassigned	Same as Intranet
Notification Incentives	No	Yes	Yes	Yes
Peak Demand Incentives	No	Yes	Yes	Yes
Valet Service	No	Yes	Yes	Yes
Equipment Changes	None	Occupancy Tracking	Smart Broker Plus Card Readers	Same as Intranet
Garage Communication	None	One-Way	Two-Way	Same as Intranet
Rental Period Length	Monthly	Same as Broker	Same as Broker	Broker Plus Daily, Hourly
Time Restrictions For	Businesses	Same as Broker	Same as Broker	Broker Plus Individuals
Target Occupancy	Low	Medium	Medium-High	High
Cost	Low	Low-Medium	Medium-High	High
Revenue	Low-Medium	Medium	Medium-High	High

Fig. 15: The recommended business model for progression toward shared parking in Pike/Pine. Table from final report, *District Shared Parking: Program, Policy and Technology - Strategies for a More Resilient Parking System in Pike Pine*. Link to complete report provided above.

PILOT FOCUS

Assistance with parking demand management and improving affordable housing resident mobility

CONTEXT

Hopelink is a non-profit community action agency that provides mobility management services in King County. Hopelink proposed implementing TDM and parking management strategies at senior and low-income properties in King County, including an exploration of parking pricing options.

In partnership with Senior Housing Assistance Group (SHAG) and Catholic Housing Services (CHS), Hopelink's Mobility Management team created Existing Conditions Reports for three SHAG properties and two CHS properties. Parking management plans were created for four of the five properties. The plans incorporated TDM best practices with site-specific factors to prioritize implementation strategies.

During the second half of 2014, prioritized strategies determined by project partners to be most feasible within the constraints of each property were implemented. Strategies specific to each study site were selected, which included shared and/or remote parking, nonmotorized infrastructure improvements, mobility management strategies, financial incentives, and parking regulation and enforcement, among others. A parking utilization assessment was conducted to gauge the relative success of the implemented strategies, and the team followed up with household surveys and staff interviews.

RSP FINDINGS

One of the primary pilot implementation strategies was the facilitation of a Transit Incentive Program (TIP) to encourage use of public transit by residents. The program, implemented across all of the study properties, was designed to reduce dependence on private automobiles, allowing residents to consider giving up vehicles or ensuring that additional vehicles are not purchased. The TIP gave participants a fully-loaded ORCA card for four months during 2014. As a result, an overall increase in resident mobility and comfort with use of transit was observed. A
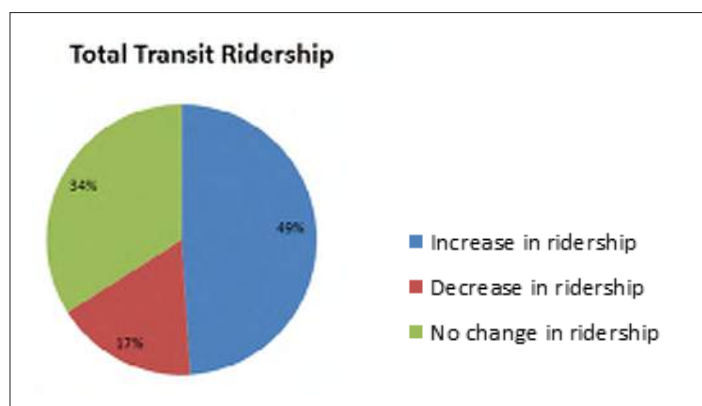
Fig. 16 A Transit Incentive Program implemented during the pilot project resulted in increased total transit ridership.

majority of participant survey respondents reported an increase in weekly transit use (see Fig. 16). Data collected on parking utilization showed a slight decrease in parking utilization at all properties.

Additional implementation strategies included pedestrian safety enhancements, a Car2Go waiver for SHAG residents, and clarification of existing parking policies and operations practices.

RSP RECOMMENDATIONS

Due to the regulatory framework governing facilities built using low income tax credits, the team recognized that unbundling parking, a potential strategy explored during the course of the project, would require a policy change at the federal level.

As an outcome of the pilot project, SHAG staff expressed interest in self-funding a parking utilization assessment of a nearby park-and-ride lot as well as implementing a community rideshare program for group trips.

Hopelink is currently exploring opportunities to help partner agencies develop mobility plans for residents, develop tools to explain cost differentials between gas and transit for certain trips, and facilitate financial workshops for CHS residents who are burdened by high-interest car loans.

PILOT FOCUS

Traffic study and TDM plan

CONTEXT

El Centro de la Raza (ECDLR), a social services organization and housing provider, sought to explore and select TDM and parking management tools for application at a planned affordable housing project, Plaza Roberto Maestas. The mixed-use project and auxiliary garage would replace existing parking lots, keeping total parking in the campus context at approximately 150 stalls while bringing new residents and businesses to the site. The team was charged with determining the parking and traffic needs on the campus after completion of the project.

The RSP team worked together with ECDLR, Beacon Development Group, the project developer, and the City of Seattle's Department of Transportation to balance parking supply and demand for the entire campus. The project began with a community meeting to gather feedback about the design of the proposed parking garage. Needed parking supply was determined using the RSP web calculator. The team conducted a parking and traffic study, which included consideration of construction parking and staging as well as recommended project-related outreach efforts.

RSP FINDINGS

During the course of the project, the team learned that the Columbia City Station Apartments (CCSA), a 52-unit low-income 1- and 2-bedroom apartment building adjacent to the Columbia City Light Rail Station, has nearly filled its 23 rentable stalls while being situated in a similar restricted parking zone. Recognizing that paid parking could help the project and ECDLR in a number of ways, including inducing and underwriting transit ridership, ECDLR is exploring the possibility of charging households for parking with pricing scaled to reflect a percentage of tenant rent.

Though not an initial focus of the project, it became clear during the study that office-related parking demand will also influence parking demand in the completed ECDLR campus. To address ECDLR's office parking uses, the RSP team explored a TDM strategy that included layered parking uses throughout the day, establishing an organizational
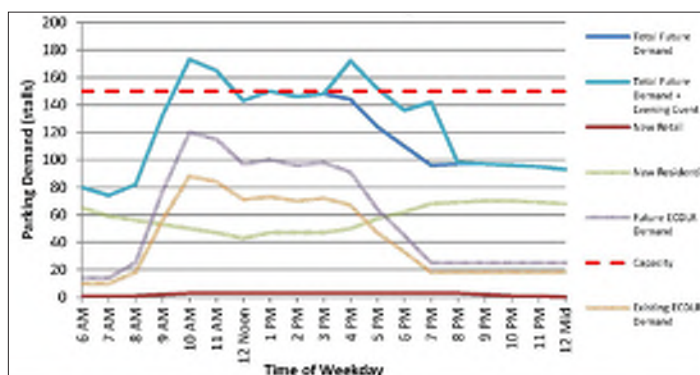
Fig. 18: Future on-site parking demand compiled for the Plaza Roberto Maestas Traffic Study.
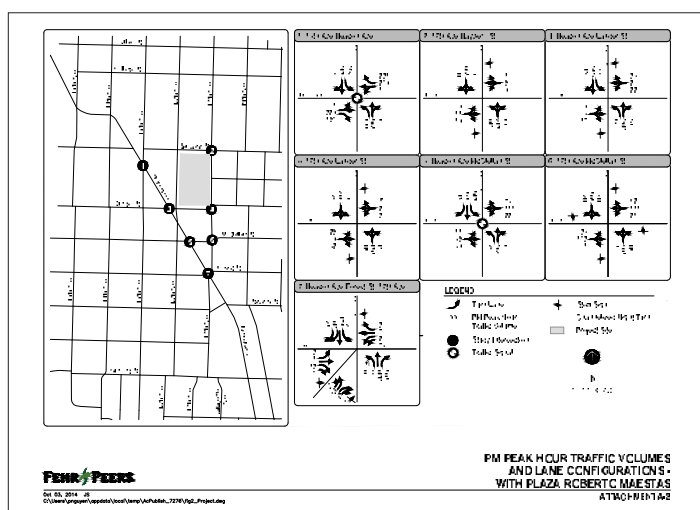
Fig. 19: Projected future peak hour traffic volumes and lane configurations from the Plaza Roberto Maestas Traffic Study.

account with ZipCar for ECDLR staff members, and providing 50% subsidies for employee ORCA passes.

RSP RECOMMENDATIONS

The calculator projections were used to identify TDM strategies for the completed project. The final RSP deliverable was an operating plan for TDM at the completed project that outlined guiding principles for implementing TDM and provided detailed recommendations regarding residential parking, alternative transportation, office and shared daytime parking, and event parking.

ORCA Multi-family Development Passport Pilot Program

The **ORCA Multi-family Development Passport** pilot program provides an ORCA card that is an annual transportation pass for multi-family property owners or managers to offer to residents. Participating multi-family property owners and managers purchase the ORCA cards to offer to their residents. In exchange for a substantial discount, the program requires that the ORCA card be offered to every residential unit in the building; however, participation by residents is not mandatory.

The program benefits multi-family property owners and managers by providing an amenity for residents that encourages transit use, in turn reducing traffic congestion around buildings, lessening neighborhood parking impacts, and facilitating easier building parking management. Offering this product to residents can also give building owners and managers a competitive edge in a crowded rental and real estate market and contribute to more sustainable building and transportation management practices.

Residents benefit from receiving a single card to access comprehensive transit services throughout Seattle and beyond, ensuring a convenient, flexible, and affordable transportation option for choosing how to get to work, run errands, or visit family and friends.

The cost of the passport varies depending on property location and existing transit use. After the first year of the program, the cost is adjusted based on resident participation and use from the previous year. Property owners and managers may elect for residents to co-pay up to 50% of the cost of the product.

More information on the ORCA Multi-family Development Passport program and other transportation programs available to multi-family property owners and managers can be found here:

http://www.seattle.gov/waytogo/navSeattle.htm

Stakeholder Involvement & Project Outreach 5

Telling the RSP story

Though rooted in academically-rigorous statistical analysis, it was Metro's intention that the RSP story not be solely an academic exercise. RSP's goal is to put data in the hands of those who make parking decisions in order to have a direct impact on communities, both within King County and beyond.

It was critical for the RSP project to create a call-to-action among stakeholders in order to spread the word about RSP research and to affect meaningful change in parking pricing behavior. The RSP findings tell a compelling story about the dynamics surrounding parking supply and the necessity for taking action to implement change in order to support community and regional goals.

RSP tools and education

RSP interfaces and products have been designed with ease of use and flexibility of application in mind. The primary means by which RSP research and data have been made easily accessible to stakeholders — including policymakers, project planners and developers, and the general public — is via the RSP web calculator. In order to best leverage the research and web tool products, the RSP project also developed guidelines for parking best practices that address both regulatory and property development topics.

These products, which include the RSP Model Code, the Parking Requirements and Utilization Gap Analysis, and the Multi-family Parking Strategies Toolkit, provide hands-on guidance for decision-makers and practitioners seeking to meet organizational goals through parking reform.

Stakeholder involvement

The RSP team recognized at the outset of the project that stakeholder outreach and involvement would be an essential component of sharing the RSP message and research. To that end, the RSP project sought an interdisciplinary approach, soliciting input from a wide array of parking stakeholders, developing innovative research and tools, providing best practices on policy reform and parking management, and implementing demonstration pilot projects with local partners. Stakeholder input came

from a variety of forums, including focus groups as well as a methods committee of national academics and practicing professionals that guided the development of the research.

The RSP team has made a concerted and comprehensive effort to spread the word about RSP findings and tools via outreach through publications, conference presentations, and meetings with interested stakeholder groups.

The project team presented the RSP research and findings at conferences focused on issues of transportation, parking management, smart growth, real estate, land use, and urban planning. The team also presented to municipal, agency, and organizational audiences that were interested in potential applications of the RSP tools and research. RSP presentations were a feature of multiple FHWA-sponsored parking pricing and management workshops throughout the country. In addition, the RSP project was shared with student audiences at the University of Washington and the University of Oregon.

The realization and implementation of the pilot projects are also a testament to the success of the RSP outreach efforts. The project team partnered with seven developer and jurisdictional partners to successfully complete pilot projects focused on parking management and policy reform.

RSP project outreach goals and audiences

Primary RSP outreach goals included the following:

- Educate a broad range of stakeholders regarding the availability and utility of RSP tools and products
- Increase stakeholder understanding of the impacts of building too much or little parking
- Raise awareness of individual stakeholder perspectives and concerns between and among the broader stakeholder group
- Promote the website tool and other RSP products; Explain how to use the tool
- Create momentum around RSP concepts and actions within relevant industries and professions (for example, use of the web calculator by developers or policy changes on the part of jurisdictions)
- Identify new partners for RSP implementation and continued research

"Supply & Demand: A Balanced Approach to Parking" Presentation and Panel

Fig. 20: Professor Donald Shoup presents on parking supply and demand at a Right Size Parking event. Photo courtesy ULI.

In February 2013, the Urban Land Institute Northwest partnered with King County Metro to present a lunch event entitled **'Supply & Demand: A Balanced Approach to Parking'**. The event featured opening remarks from King County Executive Dow Constantine, a keynote presentation by Donald Shoup, Professor of Urban Planning at UCLA, and a panel of local industry experts. The discussion focused on issues surrounding the art and science of parking and the presentation of groundbreaking data from the Right Size Parking Project.

Key points presented by Shoup, a highly-regarded expert in balancing parking supply and demand, included the observation that municipal land use codes have a tendency to require the provision of quantities of parking that exceed actual demand. In Shoup's experience, city codes that keep street parking free or cheap and that seek to prevent spillover parking effects actually have the effect of distorting the parking market.

Shoup presented three potential solutions: implementing variable pricing for street parking that targets 85% parking space occupancy, returning parking meter revenue directly to the district in which it is generated, and removing off-street parking requirements for buildings in coordination with changes in land use.

A video of the full presentation can be found at:

https://vimeo.com/65086043

Audiences include:

- Developers of multi-family and mixed-use projects
- Financiers of multi-family and mixed-use developments
- Local government staff and decision-makers (transportation, land use/permitting, neighborhoods, economic development)
- Local, regional, national levels of public sector, industry/professional organizations
- Urban planning and architecture consultants
- Neighborhood groups with an interest in parking supply issues
- Advocacy groups with interest in the environment, smart growth, transit, health, and active transportation
- Chambers of commerce and business groups
- Academics
- Media

Project team partners

The RSP team, which included agency, private and non-profit sector partners, worked to balance issues of parking supply with competing interests while creating tools that support economic development and community goals alike. Project outreach included the range of user types and multidisciplinary experts necessary to assure a relevant and accurate product.

Within the RSP project team, several committees were organized that helped to provide guidance for the various initiatives of the RSP project, including a **Jurisdictional/Technical Committee,** a **ULI Development Committee,** a **Methods Committee,** and an **Education Outreach Committee**. The following is a list of the key partners in the RSP project:

Federal Highway Administration (FHWA)

The FHWA provided project funding, grant oversight, and technical review of deliverables.

Washington State Department of Transportation (WSDOT)

WSDOT provided project management, grant oversight and progress review.

Center for Neighborhood Technology

Metro engaged the Center for Neighborhood Technology (CNT), a non-profit organization and leader in the promotion of livable and sustainable urban communities, to assist in the development of the project research methodology. CNT worked with Metro staff and project partners to design the research to meet RSP project goals. CNT also supported the analysis and reporting of the RSP data and produced statistical models to enable the development of data-driven tools for informing and influencing development and parking supply decisions. In addition, CNT supported the production of the website calculator tool to help disseminate project information to a broad audience of potential users.

Urban Land Institute

Metro collaborated with the Urban Land Institute (ULI) to structure the community engagement and outreach component of the RSP project. ULI reviewed the project research, explored concepts and strategies, and helped to develop and recommend guidelines and incentives to be advanced by the RSP project.

In addition, ULI established a committee to engage multi-family development professionals to support the overall program development and implementation of the RSP project. ULI was also charged with marketing and communicating the RSP work products and concepts to existing and potential project stakeholders as well as to the broader public.

Consultant team

In addition to the project partners listed above, Metro enlisted a consultant team to provide technical expertise in the various disciplines engaged by the RSP project:

- **VIA Architecture:** Urban design and planning consultants
- **Rick Williams Consulting:** Parking and Transportation Demand Management consultants

- **Fehr & Peers:** Transportation consultants
- **Kidder Mathews:** Commercial real estate consultants

The consultant team conducted local parking demand research and data collection. The team used this information to develop guidelines for best practices and strategies for addressing parking issues in complex, mixed-use urban environments. In addition, the consultant team facilitated the stakeholder committee meetings and gathered feedback from participants.

The consultant team identified potential barriers and challenges to achieving RSP goals and collaborated to provide solutions. They also developed guidelines for implementing incentive program pilot projects.

Pilot partners

The RSP project engaged several municipal and developer partners to participate in seven policy and management pilot projects to test the RSP model and findings. See Chapter 4 for more information on the RSP pilot projects.

Stakeholder committees

The RSP project organized two stakeholder committees to provide valuable input and feedback to project deliverables: the **ULI Development Committee** and a **Jurisdiction Technical Committee**. These two committees were developed to provide unique skills and experience that are necessary for effectively addressing residential multi-family parking issues in King County. The two groups met together several times throughout the course of the project to ensure efficient review and input on project concepts and deliverables, including:

- Developing a common understanding of project parameters, assumptions, and outcomes
- Discussion of public/private conflicts, finding common ground, and identifying project opportunities
- Developing ideas about function, content and target audience for the RSP website and web calculator

ULI Development Committee

The ULI Development Committee comprised a broadly representational stakeholder group consisting of ULI members representing the multi-family development community, financiers, property managers, engineers, and city planning managers.

This committee was convened to serve as a sounding board to the larger RSP project team by supporting the overall program development and implementation. The ULI Development Committee was tasked with advocating for the outcomes and solutions developed through the project and serving as a liaison to the real estate community during project implementation. In addition, the committee provided targeted support to the following RSP project efforts:

- Identification of barriers and solutions to RSP development in multi-family and mixed-use properties within King County

- Development of a list of monitoring and measurement metrics, including identification of gaps in information

- Creation of technical program guidelines, model code language and development of incentives

- Oversight of RSP community engagement and outreach, including development of a project implementation plan

Jurisdiction Technical Committee

The Jurisdiction Technical Committee was composed of members familiar with the technical issues surrounding parking demand and its implications for urban development and transportation. Committee members included jurisdiction technical staff members from cities throughout King County, with a representative mix of expertise in permit review, long range planning, code writing, traffic demand management, and traffic engineering.

The Jurisdiction Technical Committee provided public sector stakeholder review and input on technical aspects of the RSP project, such as new methods to assess multi-family residential parking demand, and suggested policy and zoning regulations to allow a reduction in parking supply when appropriate. The committee provided additional support to the RSP project in the following ways:

- Identification of barriers to RSP and the corresponding development of innovative but practical solutions that could be implemented locally

- Contribution to the creation of products that help jurisdictions and developers build successful transit-oriented communities

- Review, revision, and testing of RSP products

- Provision of advice and feedback for the development of technical program guidelines and incentives necessary for the implementation of a new approach to parking

The RSP project has attracted national attention. Several regions and cities around the country are currently working to replicate the RSP study and web calculator concept for their own planning purposes, including the San Francisco Bay Area, Washington, D.C., Boston, and Chicago. Many regions are reexamining parking requirements in support of pedestrian-oriented design, transit access, and a compact mix of uses to increase transportation choices. Such priorities demonstrate a long-term commitment to RSP principles such as lowering reliance on cars, and they provide justification for reductions in or elimination of requirements for off-street parking in multi-family developments.

The strategies and tools created by the RSP project offer a model to jurisdictions aiming to base parking decisions on local data and sound scientific methods, as well as to developers seeking to determine how much parking to supply in a multi-family building. In particular, the web calculator tool advanced the parking industry by developing a context-sensitive approach to predicting multi-family residential parking utilization.

Overall challenges and successes

Challenges

The primary challenges faced by the RSP team during the course of the project involved questioning and challenging institutionally-entrenched "status quo" assumptions about parking utilization and demand. These assumptions influence public perception of parking supply and demand dynamics. They provide the foundation for developer and financier decisions regarding the building of new parking in multi-family projects and are not necessarily aligned with the realities of current conditions in many urban contexts, as the RSP research revealed.

Another challenge faced by the team was ensuring property manager follow-through with research assistance during the data collection stage of the project.

Successes

RSP has significantly advanced the industry's understanding of residential parking dynamics through its high-quality, comprehensive research, originality, and transferability to other regions. RSP presentations were a feature of multiple FHWA-sponsored parking pricing and management workshops throughout the country. The RSP study was also recently featured by both ITE and the Transportation Research Board, and it has received national attention for its innovative data-driven process, strategies of public engagement, and best practice policy development.

The pilot projects have demonstrated that the results of the RSP research can help to successfully support and guide decisions about parking supply and management. RSP tools and strategies can serve as resources to inform discussions as users weigh the factors affecting parking use and consider how much parking to provide or how much to reduce parking requirements.

Top Tips for Implementing RSP

Following are the top recommendations from the project team to other cities looking to implement RSP:

- **Good communication is important.** Maintain good relationships between real estate and jurisdictional communities.

- **Data collection takes time.** Develop strong methods that can be implemented efficiently and consistently.

- **Consider your audience.** Create tools and products that are audience-specific, context-relevant and user-friendly.

- **Improve upon the research.** The RSP project is one approach to understanding the relationship between parking supply and demand, and it lays the groundwork for future research efforts. The RSP team would like to see future efforts continue to develop and improve the research methodology. This might include conducting resident surveys, analyzing vehicle licensing information, and including on-street parking counts in the project data.

Next steps for RSP

RSP data and methodologies are currently being shared with ITE and other interested parties beyond King County, leading to subsequent projects in other regions and potential inclusion in the next edition of the *ITE Parking Generation Manual*. RSP has garnered national attention, spurring initiatives in other regions, and many communities are examining the project to identify how RSP concepts can be implemented in their area.

One of the most important aspects of the RSP project is its up-to-date and context-specific data. Because many of the areas included in the RSP data collection sample continue to experience rapid development that results in an ever-changing context, it is important that data collection and database updates remain an ongoing piece of the

RSP effort. The RSP team is analyzing options for regularly updating RSP data and the website calculator to ensure the continued accuracy of the model estimates.

Current RSP goals include continuing to gather momentum on data-driven parking allocations and securing additional partnerships for pilot projects. The RSP team also plans to develop a monitoring evaluation program to measure the effectiveness of the incentive program pilot projects.

See the project website for more information on the Right Size Parking Project: http://metro.kingcounty.gov/programs-projects/right-size-parking/

GREENTRIP PARKING DATABASE CASE STUDY

The GreenTRIP Parking Database provides data from more than 65 multi-family residential sites around the San Francisco Bay Area, a region that has shown a trend in decreased car ownership in recent years.

The GreenTRIP Parking Database project built upon the research methods developed by the King County Multi-family Residential Parking Calculator. Although not a predictive model like the RSP calculator, the GreenTRIP Parking Database takes into account many similar factors, such as income and access to transit.

Working together with CNT, the GreenTRIP team used lessons learned from RSP to optimize data collection, resulting in a wider range of data for each site. The database also incorporated more about depth of affordability than the RSP data set.

The parking database can be used to search for specific sites and to view actual total parking used at a particular location or for a particular building type. Reports can be printed and shared freely with developers and decision-makers.

The Metropolitan Transportation Commission (MTC) partially funded the research that served as the basis for
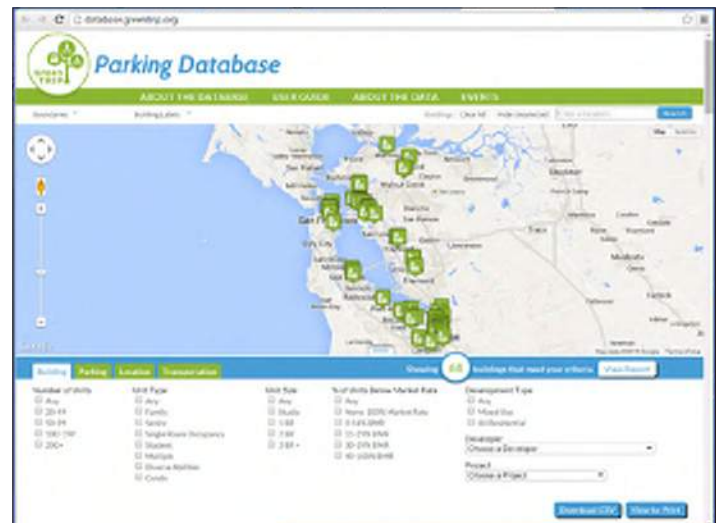
Fig. 21: The GreenTRIP user interface.

the GreenTRIP database, with additional support from a U.S. Department of Housing and Urban Development grant.

The GreenTRIP Parking Database can be found at:

http://database.greentrip.org/

Right Size Parking products and tools

In an effort to ensure that the project data and findings continue to be easily accessible and usable by the full spectrum of stakeholders, the team created a set of technical memoranda, RSP "toolkit" documents, and a multifaceted web calculator tool to aid users in determining how much parking is "just enough" for a specific site. These tools, listed below, are described in further detail throughout this report (look for the RSP tool icon below) and can also be accessed online:

- **Right Size Parking Literature Review**
  Review of existing parking supply standards and studies
  http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/rsp-litreview_11-2011.pdf

- **King County Multi-family Residential Parking Calculator**
  Interactive map-based RSP web calculator
  http://www.rightsizeparking.org/

- **Right Size Parking Technical Research Memo**
  A summary of the RSP research findings
  http://www.rightsizeparking.org/Right_Size_Parking_Technical_Memo.pdf

- **Right Size Parking Technical Policy Memo**
  Provides policy-based solutions to identified RSP barriers
  http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/rsp-technical-policy-memo-final-09-17-12.pdf

- **Right Size Parking Model Code**
  A menu of RSP model code language for jurisdictions
  http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/140110-rsp-model-code.pdf

- **Parking Requirements and Utilization Gap Analysis**
  Comparison of code requirements and actual utilization
  http://metro.kingcounty.gov/up/projects/right-size-parking/pdf/gap-analysis-7-12-13.pdf

- **Multi-family Parking Strategies Toolkit**
  RSP parking management toolkit for property owners
  http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/multifamily-parking-toolkit.pdf

King County Metro web resources

King County Metro Right Size Parking website

The **King County Metro Right Size Parking website** includes an introduction to the RSP project and web tool, an overview of the project objectives, and links to project deliverables and additional resources.

http://metro.kingcounty.gov/programs-projects/right-size-parking/

King County Multi-family Residential Parking Calculator

The **King County Multi-family Residential Parking Calculator** is the interactive web tool that enables a wide variety of audiences to interact with the RSP data and apply the project research and findings to specific projects or areas.

http://www.rightsizeparking.org/

Right Size Parking Glossary

The **Right Size Parking Glossary** provides definitions for project-related terminology and further describes key project concepts and variables.

http://www.rightsizeparking.org/glossary.php

Additional resources & related research:

- Minimum Efforts: How a City Successfully Addressed Minimum Parking Requirements for Multi-family Properties, Daniel Rowe, *Parking Professional Magazine*, November 2013. http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/parking-professional-article-nov-2013-drowe.pdf

- Do Land Use, Transit, and Walk Access Affect Residential Parking Demand?, Daniel Rowe, Ransford S. McCourt, P.E., PTOE, Stephanie Morse, and Peter Haas, Ph.D., *ITE Journal*, February 2013. http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/ite-journal-feb-2013-drowe.pdf

- Contemporary Approaches to Parking Pricing: A Primer, U.S. Department of Transportation, Federal Highway Administration, May 2012. http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/fhwa-parking-pricing-primer.pdf

- Getting the Parking Right for Transit-Oriented Development, Ming Zhang, Katie Mulholland, Jane Zhang, and Ana J. Gomez-Sanchez, Center for Transportation Research, University of Texas at Austin, March 2012. http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/getting-the-parking-right-transit-oriented-development.pdf

- Searching for the Right Spot: Minimum Parking Requirements and Housing Affordability in New York City, Furman Center for Real Estate & Urban Policy, New York University, March 2012. http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/furman-parking-requirements-policy-brief_3-21-12-final.pdf

- Evaluating the Impact of Transit Service on Parking Demand and Requirements, Daniel H. Rowe, C.-H. Christine Bae, and Qing Shen, *Transportation Research Record 2245*, December 2011. http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/trb-rowe-transit-service-impacts-parking.pdf

- San Diego Affordable Housing Parking Study, Wilbur Smith Associates, December 2011. http://www.sandiego.gov/planning/programs/transportation/mobility/pdf/111231sdafhfinal.pdf

- Parking Evaluation: Evaluating Parking Problems, Solutions, Costs, and Benefits, Victoria Transport Policy Institute, October 2011. http://www.vtpi.org/tdm/tdm73.htm

- Parking Pricing Implementation Guidelines, Todd Litman, Victoria Transport Policy Institute, March 2011. http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/park-pricing.pdf

- Parking Demand and Zoning Requirements for Suburban multi-family Housing, Richard Willson and Michael Roberts, 90th Annual Meeting of the Transportation Research Board, January 2011. http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/willson-parking-demand-suburban.pdf

- A Parking Utilization Survey of Transit-Oriented Development Residential Properties in Santa Clara County, San Jose State University and Santa Clara Valley Transportation Authority, December 2010. http://metro.kingcounty.gov/programs-projects/right-size-parking/pdf/vta-tod-parking-survey-report-vol2.pdf

- The Trouble With Minimum Parking Requirements, Donald Shoup, December 1999. http://www.vtpi.org/shoup.pdf

- Smart Growth Alternatives to Minimum Parking Requirements, Christopher V. Forinash, Adam Millard-Ball, Charlotte Dougherty and Jeffrey Tumlin. http://www.urbanstreet.info/2nd_sym_proceedings/Volume%202/Forinash_session_7.pdf

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People Over Parking

Planners are reevaluating parking requirements for affordable housing.

Carless in Seattle: Plymouth on First Hill's apartments are now home to some of the city's formerly homeless disabled population. Photo courtesy SMR Architects and Plymouth Housing Group.

By Jeffrey Spivak

Like a lot of cities, Minneapolis has experienced the dual trends of rising multifamily rents and dwindling housing affordability. For years it offered the usual carrots of tax incentives and development subsidies for residential projects with affordable units. But three years ago, it tried a different strategy: The city slashed its multifamily parking requirements in certain parts of town.

The usual ratio of one parking space for every one unit was cut in half for larger apartment projects and was eliminated entirely for projects with 50 or fewer units located near high-frequency transit. Lo and behold, the market mostly responded in the exact ways planners had predicted.

Apartment developers proposed projects with fewer parking spaces. That lowered the cost of construction. So, such projects began offering rents below the market's established levels. New studio apartments, which typically went for $1,200 per month, were being offered for less than $1,000 per month.

"There's definitely a new type of residential unit in the market that we haven't seen much before," says Nick Magrino, a Minneapolis planning commissioner who has researched apartment development trends since the parking code change. "Outside of downtown, there's

been a lot of infill development with cheaper, more affordable units."

Tinkering with minimum parking requirements is not new. Cities have been fiddling with regulations for decades, sometimes raising them, sometimes lowering them, and sometimes giving variances for specific projects. What's different now is an evolving understanding that urban lifestyles are changing, traditional parking ratios are outdated, and too much supply can be as harmful as too little.

So there's a burgeoning movement of municipalities across the U.S. reducing or eliminating parking requirements for certain locales or certain types of development or even citywide.

"This would have seemed inconceivable just a few years ago," says Donald Shoup, FAICP, a Distinguished Research Professor in UCLA's Department of Urban Planning who has studied and written about parking policies for years and is considered the godfather of the current reform movement. (See an article based on his new book, *Parking and the City:* www.planning.org/planning/2018/oct/parkingpricetherapy/ (/planning/2018/oct/parkingpricetherapy/).)

Carless in Seattle: The mixed use transit-oriented development Artspace Mt. Baker Lofts is located on the Central Link light-rail line. It has bicycle storage and a reserved car-share space, but no parking garage. Photo courtesy SMR Architects and Artspace.

Over the past three years, a Minnesota-based smart-growth advocacy organization called Strong Towns has compiled, through crowdsourcing, more than 130 examples of communities across the country addressing or discussing parking minimum reforms. And that list hasn't captured all the cities taking actions.

Communities are reforming these regulations in a variety of ways.

Some have ditched parking minimums entirely. Buffalo, New York, in early 2017 became the first U.S. city to completely remove minimum parking requirements citywide, applied to developments of less than 5,000 square feet. Late last year Hartford, Connecticut, went a step further and eliminated parking minimums citywide for all residential developments.

Some have targeted their reforms to certain areas or development districts. Lexington, Kentucky, earlier this year scrapped parking requirements in a shopping center corridor to allow the development of new multifamily housing. Spokane, Washington, this past summer eliminated parking requirements for four-plus-unit housing projects in denser parts of the city.

Some have tied new policies specifically to spur affordable housing. Seattle this past spring eliminated parking requirements for all nonprofit affordable housing developments in the city, among other provisions. A couple of years ago, Portland, Oregon, waived parking requirements for new developments containing affordable housing near transit. Also in 2016, New York eliminated parking requirements for subsidized and senior housing in large swathes of the city well served by the subway.

Even some suburbs are doing it. Santa Monica, California, removed parking requirements entirely last year for new downtown developments as part of a new *Downtown Community Plan*. And this year, the Washington, D.C., suburban county Prince George's, Maryland, revised its zoning code to significantly reduce parking minimums.

"We're trying to create a new model of mobility and not emphasize the car as much as we've done in the past," says David Martin, Santa Monica's director of planning and community development.

Building Parking Raises Rent

Parking costs a lot to build, and that cost usually ends up raising tenant rents.

$5,000: Cost per surface space

$25,000: Cost per above-ground garage space

$35,000: Cost per below-ground garage space

$142: The typical cost renters pay per month for parking

+17%: Additional cost of a unit's rent attributed to parking

Source: Housing Policy Debate, 2016

Catalysts for change

Three primary factors are driving this new reform:

1. CITIES ALREADY HAVE MORE THAN ENOUGH PARKING.

The Research Institute for Housing America, part of the Washington, D.C.-based Mortgage Bankers Association, used satellite imagery and tax records this year to tally parking space totals in different- sized U.S. cities, and determined that outside of New York City, the parking densities per acre far exceeded the population densities.

Meanwhile, two different groups — TransForm, which promotes walkable communities in California, and the Chicago-based Center for Neighborhood Technology, a nonprofit sustainable development advocacy group — have both conducted middle-of-the-night surveys of parking usage at apartment projects on the West Coast and in Chicago, respectively. They consistently found one-quarter to one-third of spaces sat empty. The Chicago center concluded "it is critical to 'right size' parking at a level below current public standards."

2. TRANSPORTATION PREFERENCES ARE SHIFTING.

A variety of converging trends point to the possibility of fewer cars in the future. Fixed-rail transit lines continue to be developed in more urban centers, and millennials are not driving as much as previous generations. Meanwhile, transportation alternatives are proliferating, from passenger services such as Uber to car-sharing services such as Zipcar. Then there's the potential of driverless cars and the expansion of retail delivery services.

3. BOTTOM LINE: WE'RE GOING TO NEED MUCH LESS SPACE TO STORE CARS.

In fact, Green Street Advisors, a commercial real estate advisory firm, analyzed what it calls the "transportation revolution" — encompassing ride-hailing services, driverless cars, etc. — and estimated that U.S. parking needs could decline by 50 percent or more in the next 30 years. (See "Future-Proof Parking," March: www.planning.org/planning/2018/mar/futureproofparking (/planning/2018/mar/futureproofparking/).)

"In the old days, you built an apartment and you expected it needed two cars," says Doug Bibby, president of the National Multifamily Housing Council, an apartment trade association in Washington D.C. "Those parking ratios are outdated and no longer valid in any jurisdiction."

Concerns about housing affordability

With the U.S. economy reasonably strong and most urban crime rates on a long-terms decline, housing costs have increasingly emerged as a hot-button issue. In Boston University's nationwide Menino Survey of Mayors last year, housing costs were cited as the number one reason residents move away, and more affordable housing was the top-ranked improvement mayors most wanted to see.

"It's on the minds of mayors now more than it has been in the past," says Kimble Ratliff , the National Multifamily Housing Council's vice president of government affairs.

They're concerned because there's ample evidence of a continued national shortage of affordable housing. The latest "State of the Nation's Housing" report from Harvard University's Joint Center for Housing Studies noted that a decade-long multifamily construction boom has increased total occupied rental units by 21 percent, but mainly at the top end of the market. Total units deemed "affordable" — costing less than 33 percent of median income — have remained basically static during the last decade, while the number of extremely low-income renter households has grown by more than 10 percent. The 2018 report concluded that there is a "tremendous pent-up demand for affordable rental housing."

So as cities have searched for ways to generate more affordable housing, parking has emerged as an easy target. Parking ratios are simple to change, and the process doesn't lead to future cost obligations like subsidies do.

That was the approach taken by Seattle this year. "The number one issue facing our city is the lack of housing options and affordability. We're looking to remove any barriers to the supply of housing, and parking is one of them," says Samuel Assefa, the director of Seattle's Office of Planning and Community Development.

Living Space versus Parking Space

The typical median parking required for a two-bedroom apartment in many large North American cities is more than half the size of the apartment itself.

Source: Seth Goodman, graphicparking.com.

Impacts on housing costs

Planners' shifting strategies toward parking are now supported by a growing body of evidence that parking requirements negatively impact multifamily housing, especially affordable projects.

In a nutshell, building parking costs a lot, and that cost usually ends up raising tenant rents.

Various studies indicate that surface parking lot spaces cost upwards of $5,000 each, while above-ground parking garages average around $25,000 per space and below-ground garages average around $35,000 per space. That can translate into higher rent, particularly in big cities. Two UCLA urban planning professors studied U.S. rental data and reported in the journal *Housing Policy Debate* in 2016 that garage parking typically costs renter households approximately $142 per month, or an additional 17 percent of a housing unit's rent. Other studies have found even larger impacts on rents.

"That can be a significant burden on lower-income households," says David Garcia, policy director of the Terner Center for Housing Innovation at the University of California–Berkeley.

Changing that equation can help produce additional affordable housing. That's a scenario actually playing out in Portland, Oregon.

In 2016 the Portland Community Reinvestment Initiatives, a nonprofit developer and manager of low-income housing, began planning a 35-unit senior housing project called Kafoury Court. At the time, Portland's code required providing five parking spaces for the project, and the developer was struggling to find financing. But late that year, the city changed its parking requirements, and Kafoury now only needs to provide two spaces.

While that change doesn't seem like much, it allowed the development to be totally redesigned. A first-floor parking garage was no longer needed, so the building has been scaled back from five stories to four stories, which led to cost-saving ripple effects. "This has made the project financially feasible," says PCRI's Julia Metz.

She adds: "We prefer to build houses for people, not cars. When it comes down to choosing space for people or parking, we're going to choose people."

Affordable housing projects, with their lower rent revenue streams, are already challenging to finance. So parking is an increasingly key factor in whether or not a project works financially. But to developers, reducing or removing parking requirements does not mean eliminating parking supply. It simply allows developers to decide how many spaces to build based on market and locational demand.

"I've had developers say to me, 'Hey, I could make this deal work if I only had to build a garage that's one-third smaller,'" says Greg Willett, chief economist of RealPage, a provider of property management software and services. "Any way you can take costs out of the deal is meaningful."

APA Housing Initiative: Planning Home

By Emily Pasi

Planners know better than anyone the critical role that housing plays in our communities, and the severity of the U.S.'s housing affordability and availability crisis. Lack of housing choice and affordability hurts people and limits communities' prosperity. To this end, APA is actively working to develop new tools and better planning practices to encourage and deliver more and better housing options for all.

Earlier this year, APA's board of directors greenlit Planning Home, an organization-wide, multiyear housing initiative that aims to reshape the way planners, elected officials, decision makers, advocates, and the public use planning to address the nation's housing challenges.

Grounded in the philosophy that better tools can get communities the housing people need, APA's Planning Home action agenda is driven by six board-approved principles, which call on policy makers at all levels of government to:

- Modernize state planning laws

- Reform local codes

- Promote inclusive growth strategies

- Remove barriers to multifamily housing

- Turn NIMBY into YIMBY

- Rethink finance

Learn what you can do now to advance APA's Planning Home action agenda at
PlanningHome.com (/home/).

Emily Pasi is the public affairs manager at APA.

'The debate is now won'

When it comes to utilizing parking to augment planning and development policies, U.S. cities
still have a long way to go to catch up to some European counterparts. Zurich, Switzerland;
Copenhagen, Denmark; and Hamburg, Germany, have all capped the total number of allowable
parking spaces in their cities. Oslo, Norway — where a majority of center-city residents don't
own cars — is pursuing plans to remove all parking spaces from that district, to be replaced by
installations such as pocket parks and phone-charging street furniture.

And last year the largest city in North America, Mexico City, eliminated parking requirements
for new developments citywide and instead imposed limits on the number of new spaces
allowed, depending on the type and size of building.

In the U.S., however, parking is still sacred in many places. Sometimes when parking
reductions are proposed for a certain urban district or a specific new development, nearby
residents complain it will force new renters to park on their residential streets. Because so
many people still own cars, the National Multifamily Housing Council's *2017 Kingsley Renter
Preferences Report* ranked parking as renters' second-most desired community amenity,
behind only cell-phone reception.

Not surprisingly, then, some places are still demanding more parking, not less. In Boston, for
instance, an influx of new residents clamoring for parking in the booming South Boston
neighborhood led to zoning code changes in 2016 that require developers to build two-thirds
more off-street parking than before.

Nevertheless, the movement to reduce parking is now widespread, involving big cities and
small towns, urban districts and suburban locales, affordable housing and market-rate units.
"It's pretty well accepted now that reforming parking minimums is a good way to manage
cities," says Tony Jordan, founder of Portlanders for Parking Reform, which has advocated for
better parking policies. "The debate is now won."

The lessons for planners are, first, to be open to adjusting parking policies in zoning codes and
comprehensive plans and, second, to be flexible in crafting new parking limits depending on
the location or desired outcome, such as spurring affordable housing development.

"As we update our policies, we as planners need to learn from the past and adjust," says Seattle planning director Assefa. "We constantly need to tweak our policies and face the challenges of what's not necessarily working. More often than not, there's significant space dedicated to the car that is not utilized."

Jeffrey Spivak, a market research director in suburban Kansas City, Missouri, is an award-winning writer specializing in real estate planning, development, and demographic trends.

RESOURCES

APA Knowledgebase Collection, "Rethinking Off-Street Parking Requirements": www.planning.org/knowledgebase/parkingrequirements (/knowledgebase/parkingrequirements).

Harvard University Joint Center for Housing Studies' *The State of the Nation's Housing 2018*: hjchs.harvard.edu/state-nations-housing-2018 (http://hjchs.harvard.edu/state-nations-housing-2018).

Center for Neighborhood Technology, "Stalled Out: How Empty Parking Spaces Diminish Neighborhood Affordability:" http://bit.ly/2Mr0bES (http://bit.ly/2Mr0bES).

Strong Towns keeps track of progress on parking minimum removals across the U.S. http://bit.ly/2C1t86k665600 (http://bit.ly/2C1t86k665600).

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Ontario town's experiment using Uber as public transportation is working, officials say

Innisfil – located just south of Barrie and home to about 36,000 people — has paid $26,462.41, or an average of $5.43 per trip, for 4,868 Uber rides taken in the two months since launching the unique-to-Canada project on May 15

Alicja Siekierska

August 8, 2017
5:18 PM EDT

Filed under
Transportation

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The town of Innisfil, Ont. is hailing its two-mo
subsidize Uber as the lone form of public tran
nearly 5,000 trips taken since the pilot projec

Innisfil — located just south of Barrie and hor
people — has paid $26,462.41, or an averag
4,868 Uber rides taken in the two months sin
unique-to-Canada project on May 15.

"We are really pleased we did go this route,"
a senior policy advisor with the town.

"This partnership with Uber had definitely pro
cost effective for us, being able to provide thi
residents. You don't need to be within walkin
or a bus route, so it's something that works fo

Last summer, Innisfil's city council was at a c
additional transportation options across the s
declared a key priority in the community's stra
found that a fixed-route bus service would be
tag of $270,000 per year for one bus, and $6

Instead, the town decided to partner with glob
Uber to launch a partnership to provide on-de
Innisfil residents that is partially subsidized by
Passengers pay between $3 and $5 for set ro
such as to Town Hall and the GO train station
for all other rides within town.

Pentikainen and Tim Cane, Innisfil's manage
will provide city council with a two-month upd
on Wednesday.

So far, demand is keeping pace with the budg
Innisfil's council committed $100,000 for the f
and an additional $125,000 next year.

There are certain times where meeting dema
but according to Uber people have been able
time," Pentikainen said.

"As a 24/7 service, we're quite pleased," Pen
that using Uber as an on-demand public tran
the best option for the town for the foreseeab

"With our large geography, the distance betw
bus routes to provide the same level of servic
expensive," he said. "Maybe decades into the
much higher population we may look at other
right now this is working for us."

Pentikainen added that, in the short term, the
to tweak the service to make it more efficient
users, as well as surveying residents about th

Uber spokesperson Susie Heath said the ride
pleased with the results of the report that was
will be presented on Wednesday.

"Since we launched this exciting public transi

has been great to see Innisfil residents acce

demand rides to get around their community

transit hubs," Heath said in an emailed state

"We look forward to continued dialogue with

transit authorities across Canada to explore

The past several months have proven to be a

ride sharing company. In June, chief executiv

resigned after a lengthy investigation that wa

former engineer publicly accused the compar

and discrimination. The report, conducted by

General Eric Holder, had many recommenda

Kalanick's authority should be reduced.

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Toward Zero Parking: Challenging Conventional Wisdom for Multifamily

By David Baker and Brad Leibin
July 2, 2018

Text Size: A A A

The 69 condos in 388 Fulton (left center) in San Francisco's Hayes Valley sold easily in 2017 without any structured parking being provided. (Bruce Damonte)

This article appeared in the spring issue of Urban Land *on page 146.*

The rising popularity of human-powered transportation, walking and bicycling, and widespread availability of ride-hailing services like Lyft and Uber plus car-sharing services like Zipcar and Getaround, and the introduction of same-day delivery services have all reduced the need for individuals to own—and park—cars.

At the same time, costs of construction are at historic highs in dense urban areas, creating a challenge for developers to meet housing demand. Individual unit sizes are shrinking in response, allowing greater density. However, with smaller units, the number of parking spaces goes up, too, if traditional parking ratios hold. High construction expenses result in a very high per-space cost for parking spaces, especially for structured parking, which can run $50,000 or more for a single space.

In response to these factors, municipalities are changing the way they handle parking. Cities around the United States are eliminating minimum parking requirements for new developments.

Last year, officials in Buffalo, New York, removed parking minimums citywide for commercial and residential projects of less than 5,000 square feet (465 sq m). Also last year, Hartford, Connecticut, scratched parking minimums across the city for commercial and residential developments, regardless of size. Many other municipalities have removed parking minimums for at least one part of the city or have lowered or removed minimums for certain uses. San Francisco has gone a step further, establishing parking maximums for downtown and nearby areas well served by public transit, capping the amount of parking that developers are allowed to build for multifamily housing.
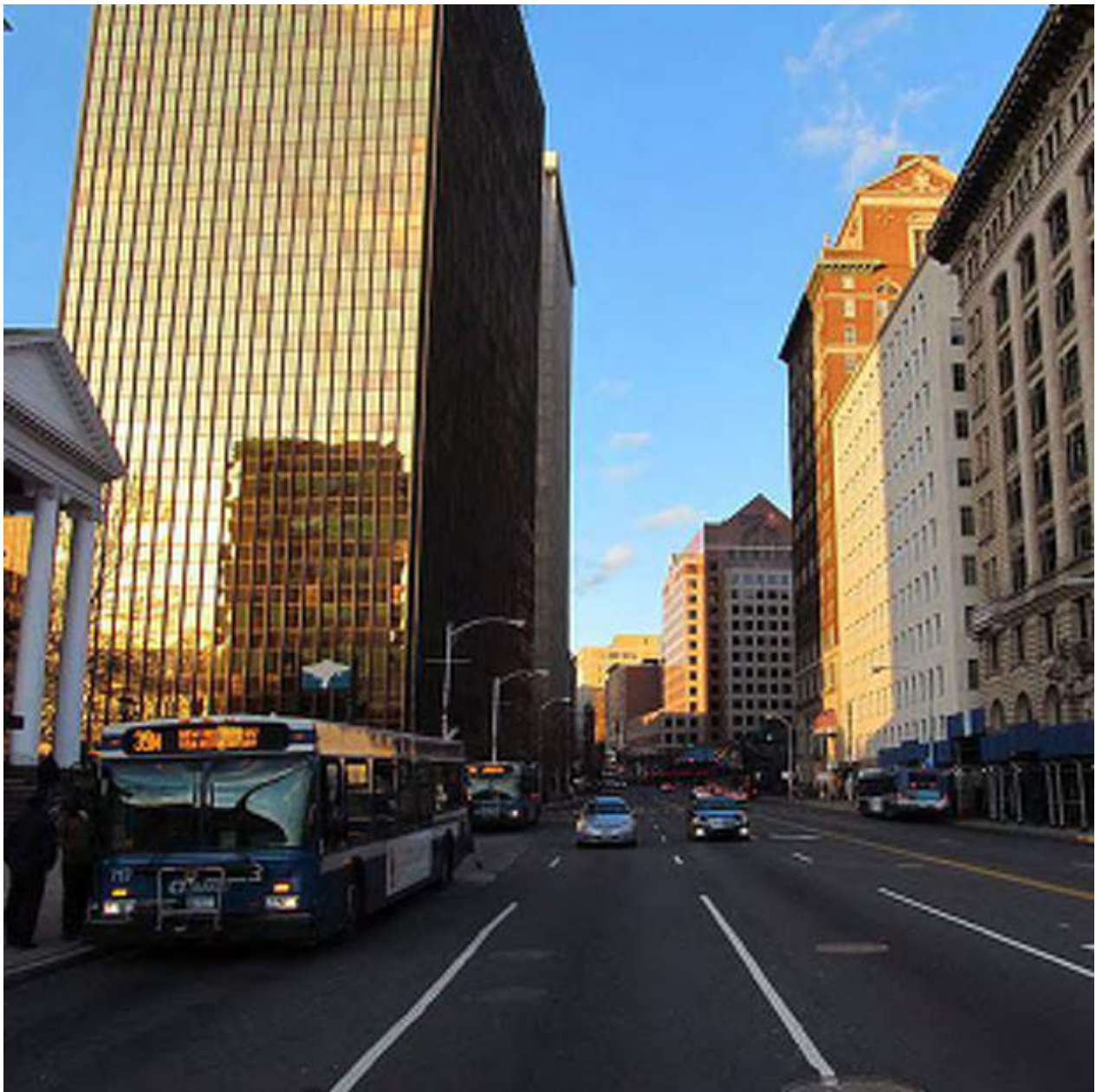
In 2017, Hartford, Connecticut, scrapped parking minimums across the city for commercial and residential developments, regardless of size. (John Phelan/Wikimedia Commons)

Nevertheless, even multifamily housing developers who support creating walkable neighborhoods and prioritizing alternative forms of transit still think they need to follow traditional parking ratios or the units will not rent or sell. What

follows are common concerns we have heard in our architecture practice, as well as the experiences and counterarguments we have come across that make us optimistic about reaching a future in which parking plays a much-diminished role in the urban environment.

1. Will planning commissions embrace attempts to reduce or eliminate parking?

About 20 years ago, a development proposal came before the San Francisco Planning Commission: a new restaurant with two residential units above and no parking spaces for the residents. Even though the project was small, dozens of neighbors showed up at the commission hearing to share their fears about the loss of street parking. The commission chairman responded by saying, "I moved from Manhattan to San Francisco so I could park." The commission voted down the no-parking proposal. Back then, the primary concerns of neighbors of proposed projects were increased traffic and competition for street parking.

In the intervening years, as voter attitudes toward automobiles have changed, the San Francisco Planning Commission has reversed its approach.

In 2005, the commission established caps specifically addressing the amount of parking developers can build for multifamily housing downtown and nearby areas well served by public transit. The commission encourages projects with active uses on ground floors, and not requiring parking makes this easier by freeing space for commercial or residential use and obviating the need for a wide parking garage door on the street. Limiting driving also reduces infrastructural maintenance costs. Last year, San Francisco's Transportation Demand Management Ordinance acknowledged that parking generates auto traffic (rather than the converse—that traffic is mainly caused by cars circling in the hunt for scarce parking, which is often the pro-parking argument).

2. What about irate neighbors?

Although some community groups still push developers to add parking, many neighborhood associations are now recognizing that car ownership is dropping. We recently designed a project in central San Francisco, the Brady Block, which will have about 600 new units of housing, a new office building, and new public realm and streetscape improvements on Market Street. The parking ratio is about 0.5 spaces per apartment. The local neighborhood group, the Hayes Valley Neighborhood Association, would have preferred that the ratio be 0:1, and, in fact, we were concerned members would come to the Planning Commission hearing to demand less than the 0.5 ratio. In the past, we would face local resident groups who would oppose projects for the opposite reason.

Urban advocacy groups have played a key role in changing public opinion. Locally, these include SPUR (San Francisco Bay Area Planning and Urban Research Association), Livable City, the San Francisco Bicycle Coalition, TransForm, and the San Francisco Housing Action Coalition, among others. They have been highly active in encouraging reliance on—and infrastructure support for—walking, bicycling, and transit, and they endorse developments that deemphasize reliance on the automobile.

In place of parking in San Francisco, Curran House's ground floor includes community spaces, a peaceful courtyard, office space for the building developer, and additional affordable family-sized units. (Brian Rose)

3. Even if residents say they drive less, don't they really want to own a car?

We have not found this to be the case.

An example is one of our recently completed projects, Potrero 1010, a 453-unit mixed-use, mixed-income development in San Francisco's Potrero neighborhood. Developed by Chicago-based Equity Residential, Potrero 1010 has 0.65 parking spaces per unit, which was the city's allowed parking maximum, and the parking spaces are not bundled with the units but available for rent separately.

About half of the parking spaces are rented, while the others remain empty, indicating that the development could have succeeded with half the parking. The building promotes walkability and alternative forms of transit: it has extensive bike storage with bike repair stands, and it is organized around a new city-owned one-acre (0.4 ha) park accessible to the public via a midblock passage lined with active uses.

4. Renters may be willing to forgo cars, but what about condominium buyers?

We designed a no-parking condo building, 388 Fulton, in Hayes Valley, San Francisco, for local developer 7×7 Development, with 69 studio and two-bedroom market-rate units. Even with zero parking, the units sold out easily in 2016 and early 2017.

5. Don't residents prefer the security of driving in their own cars?

At 388 Fulton, most of the 35 325-square-foot (30 sq m) micro-unit studios were purchased by single women in their 20s and 30s. This challenges the idea that car ownership is perceived as safer even though parking garages are high-crime areas. With the ubiquity of ride-hailing services, residents can walk out their front door, hop in a vehicle, and get dropped off at their destination rather than risk having to drive themselves, park several blocks from their destination, and walk the remaining distance, or walk through a parking garage getting to and from a car.

The Brady Block, in design in San Francisco, will have 600 new units of housing, a new office building, a new public realm, and streetscape improvements on Market Street—plus a 0.5:1 parking ratio. (David Baker Architects)

6. How can affordable-housing developers and operators help residents travel to jobs and schools without providing parking?

"While our priority is to provide housing, we do not want simply to pass the cost of parking on to our residents," says Jerry Jai, senior project manager at East Bay Asian Local Development Corporation (EBALDC), an Oakland-based nonprofit provider of affordable housing. "If we don't offer parking, does that limit job opportunities? What about costs due to towing, break-ins, and parking tickets?"

Jai notes that car ownership is not just about quality of life; it can also help parents transport their kids to school. "We don't want to be in a patronizing position where we say to residents, 'You should be able to get by without parking.'" However, Jai points to new sources of funding like California's Affordable Housing and Sustainable Communities Program (AHSC) as a promising opportunity. "Sources like AHSC are exciting because they encourage affordable-housing developers to build in transit-rich areas and to increase transportation connections—bus, light rail, etc."

Not paying to build parking can also free up money to provide other supportive resources to residents in need. In San Francisco's Tenderloin neighborhood, Curran House, completed in 2005, has 67 affordable family apartments and no

parking spaces. Most of the low-income residents cannot afford a car, and the central site has excellent public transit connections. Providing parking would have added several million dollars to the construction cost.

By not spending money—or dedicating space—for structured parking, the nonprofit housing developer, Tenderloin Neighborhood Development Corporation (TNDC), was able to provide additional units, a courtyard, space for supportive services, neighborhood-serving retail space, and office space for itself.

Our firm is working on another project with TNDC, 222 Taylor Street, just a block from Curran House on the site of a former parking lot. The design includes 113 affordable family apartments and no parking, reserving the ground level for a much-needed community grocery.

Now that Congress's overhaul of the federal tax code has lowered the tax rate for corporations and federal affordable housing tax credit programs have less value to corporations, developers of affordable housing will be even more strapped for funds, and eliminating parking will become even more essential as a strategy for meeting housing demand.

7. Will lenders be willing to finance low- and no-parking developments?

Developers who plan to build multifamily housing and then sell it have to convince equity investors and loan committees to accept lower parking ratios. The investment community is often reluctant to embrace lower amounts of parking, fearing that renters and especially buyers will be turned off, particularly in places outside highly dense urban areas like San Francisco.

However, this is changing, says Will Goodman, vice president of San Francisco–based Strada Investment Group. "There is an evolution happening with the investment community to accept no parking or low parking," he says. "We are seeing parking utilization rates go down in new buildings and technologies like ride share expanding. So, investors are increasingly buying into the story that most people don't need parking day to day, especially if they are in an area that is near to transit and where traffic is bad. In these locations, people are typically not driving to work. They may want a car for weekend excursions, but it does not need to be on site."

Particularly in super-hot markets like San Francisco, there are many precedents that investors can look at to understand that renters are willing to forgo on-site parking. But even in slightly cooler markets like downtown Oakland, Goodman says he is finding that investors are willing to take the risk.

Strada is about to break ground on a new luxury high-rise rental development in downtown Oakland, where there has not been a luxury high-rise completed since 2009. "All the comps are based on 2009 or pre-2009 parking-to-dwelling-unit ratios, which are 1:1," Goodman says. "There were some members of the investment community who were not comfortable with not providing parking. We were ultimately able to find the right investors who saw the project as representing the future of Oakland development. They understood that this is a project in an extremely transit-rich part of the city. Additionally, there are a number of garages nearby so that our residents could have a secure parking space off site."

The simplest solution is for municipalities to put parking maximums in place for transit-rich areas, as San Francisco has done. These maximums change the culture, providing successful examples of developments with limited parking, which consequently makes it much easier for developers to persuade investors to get behind low- and no-parking developments.

Even in more car-oriented markets, some developers are seeing an opening for reducing parking. In Minneapolis, we are working with local developer Lander Group on a mixed-use residential project on a 1.5-acre (0.6 ha) site in the Lyn Lake neighborhood. It is in the conceptual design phase, and the developer aims to balance density and parking requirements with a desire to create a vibrant streetscape and public realm.

"The larger projects with institutional investors are going to be very cautious about reducing parking ratios," says Michael Lander, founder and president of Lander Group. "But lenders are starting to understand that in some of the denser, more transit-rich markets there is not as much need for parking. And they know the enormous cost of parking. So there is beginning to be a changing of the status quo."

In San Francisco's Tenderloin neighborhood, 222 Taylor (left) is replacing a little-used parking lot with 113 homes for low-income residents and a neighborhood-serving grocery store. (David Baker Architects)

8. Millennials may be forgoing car ownership, but are baby boomers still attached to owning their own cars?

Even many baby boomers are beginning to question the need for cars and parking, Lander says. "The baby boomer generation in the Midwest is often still saying the same thing when it comes to proposed new developments: 'not enough parking, too much traffic.' It is a relearning process for baby boomers," says Lander. "When empty-nesters move downtown, they often bring two cars. But once they try the alternatives, like ride share, many of them reconsider the practicality of owning more than one vehicle."

9. Does this idea have traction beyond San Francisco?

Last year, San Francisco developer Panoramic Interests proposed building 1,031 market-rate apartments near the West Oakland station on the Bay Area Rapid Transit (BART) system and providing no parking for residents. The project is going through the approval process. Also in Oakland, EBALDC is looking for creative ways for projects to make economic sense despite rapid construction-cost escalation. One of these ways is reducing or eliminating parking. "The elimination of parking in one of our recent projects resulted in major savings, which made the difference between a feasible project versus one that was not," says Jai.

Even outside coastal markets, possibilities exist to minimize parking. "Midwestern cities like Minneapolis are different from denser, more transit-rich cities," Lander says. "There is more need for a car. So, I think there will still be a lot of auto mobility in the future, but many more alternatives to private ownership like Uber and car-sharing services. This will significantly reduce the need for parking."

10. Is the preference for not owning a car just a short-term trend?

A future not dominated by privately owned cars may be a long way off, but increasingly the use of a car is becoming detached from the need for parking. In urban areas, driverless taxis are likely to hit the streets much sooner than anticipated. Waymo, Google's self-driving car project, has teamed with Fiat Chrysler Automobiles to announce plans to

start offering driverless ride-hailing service in Phoenix by the end of this year. General Motors plans to launch a fleet of driverless taxis in multiple cities in 2019. At the same time, municipalities that once focused on providing ample street parking are now prioritizing bus stops, loading zones, bicycle lanes, and ride-hailing stops.

The days when multifamily housing developers must provide individual parking spaces are numbered. "Who knows? Perhaps in 20 years, no one will be having this debate because of autonomous vehicles, ride sharing, and improvements in public transportation," says Jai. "We need to remember that we are building housing that is supposed to last 50 years."

David Baker is a principal and **Brad Leibin** is an associate at David Baker Architects in San Francisco.

SHOW COMMENTS

Juergen Fenk Appointed Chairman of ULI Europe

By Trisha Riggs
July 6, 2018

Text Size: A A **A**

Juergen Fenk, member of the Group Executive Board of SIGNA Group, has been named the new chair of ULI Europe. Fenk, who succeeds Jon Zehner, global head of the client capital group for LaSalle Investment Management, will serve on a voluntary basis for a two-year term.

Fenk brings extensive ULI leadership experience to his new role. A member of ULI for over a decade, Fenk has just completed a four-year term as chair of ULI Germany, ULI's second largest national council in Europe. He is also a Global Governing Trustee, a member of ULI Europe's Executive Committee, and serves on ULI's Global Board of Directors.

"On behalf of all of the ULI members in Europe, I would like to thank Jon Zehner for his visionary leadership over the past two years," said Fenk. "During Jon's term as chair, ULI Europe has grown rapidly to nearly 3,500 members, and expanded the opportunities for members to engage by increasing the number of National Council events, creating new Product Councils, and advancing programmes such as UrbanPlan. Undoubtedly one of Jon's greatest achievements as chair is the creation of our new Strategic Plan that will act as ULI Europe's roadmap for the next four years."

Fenk will lead the implementation of the ULI Europe Strategic Plan, which is part of ULI's Global Strategic Plan, recently approved by the Institute's Global Board of Directors. The four-year plan strives to strengthen member engagement and expand its impact around the world. The Europe Strategic Plan will focus on five key areas: growing individual and corporate membership in the region; strengthening ULI's position in Europe as a multi-disciplinary real estate and land use knowledge network, which leads in applying big ideas and emerging trends to business practices; further developing National Councils and Product Councils to increase member engagement; focusing on mission-driven activities, such as UrbanPlan and Advisory Services to distinguish ULI from other organizations; and establishing a financially resilient platform for sustainable growth.

"ULI in Europe is in an exciting phase of its development," said Fenk. "The approval of the new Strategic Plan will provide us with the focus and investment needed to grow our membership, develop our networks, and expand our reach across Europe. Our approach will be to continue building each National Council by developing its local programme and growing its membership, while at the same time increasing the knowledge sharing and collaboration between councils to ensure we build a truly European network."

"ULI's global and genuinely multi-disciplinary membership is something that makes us unique among real estate organisations. ULI's origins in Europe have always made it more historically focused on capital markets and finance, and while we want to maintain our strong presence in this area, we also want to continue our growth in other sectors and disciplines to ensure we are truly reflective of the whole real estate market," continued Fenk. "Advisory Services is one programme that can really help us broaden our engagement with the public sector. During my term as chair for ULI Germany, we undertook an Advisory Services panel in Frankfurt / Offenbach. The panel not only tackled an important real estate challenge for the city, but really helped drive engagement between members and facilitated a much richer dialogue

Appendix E – W Hotel Parking Data

E

January 2016			February 2016			March 2016			April 2016			May 2016			June 2016			July 2016			August 2016			September 2016			October 2016			November 2016			December 2016		
Date	Day of Week	Overnight Count	Date	Day of Week	Overnight Count	Date	Day of Week	Overnight Count	Date	Day of Week	Overnight Count	Date	Day of Week	Overnight Count	Date	Day of Week	Overnight Count	Date	Day of Week	Overnight Count	Date	Day of Week	Overnight Count	Date	Day of Week	Overnight Count	Date	Day of Week	Overnight Count	Date	Day of Week	Overnight Count	Date	Day of Week	Overnight Count
1/1	Fri	39	2/1	Mon	37	3/1	Tue	62	4/1	Fri	47	5/1	Sun	41	6/1	Wed	48	7/1	Fri	23	8/1	Mon	27	9/1	Thu	33	10/1	Sat	39	11/1	Tue	54	12/1	Thu	32
1/2	Sat	30	2/2	Tue	38	3/2	Wed	52	4/2	Sat	64	5/2	Mon	46	6/2	Thu	41	7/2	Sat	59	8/2	Tue	44	9/2	Fri	51	10/2	Sun	29	11/2	Wed	35	12/2	Fri	30
1/3	Sun	15	2/3	Wed	35	3/3	Thu	50	4/3	Sun	49	5/3	Tue	56	6/3	Fri	55	7/3	Sun	53	8/3	Wed	47	9/3	Sat	58	10/3	Mon	30	11/3	Thu	29	12/3	Sat	52
1/4	Mon	17	2/4	Thu	26	3/4	Fri	38	4/4	Mon	64	5/4	Wed	60	6/4	Sat	47	7/4	Mon	34	8/4	Thu	29	9/4	Sun	65	10/4	Tue	45	11/4	Fri	36	12/4	Sun	22
1/5	Tue	28	2/5	Fri	27	3/5	Sat	49	4/5	Tue	63	5/5	Thu	58	6/5	Sun	40	7/5	Tue	39	8/5	Fri	38	9/5	Mon	21	10/5	Wed	29	11/5	Sat	61	12/5	Mon	30
1/6	Wed	40	2/6	Sat	32	3/6	Sun	45	4/6	Wed	50	5/6	Fri	53	6/6	Mon	45	7/6	Wed	25	8/6	Sat	53	9/6	Tue	36	10/6	Thu	35	11/6	Sun	26	12/6	Tue	35
1/7	Thu	30	2/7	Sun	21	3/7	Mon	52	4/7	Thu	31	5/7	Sat	45	6/7	Tue	58	7/7	Thu	31	8/7	Sun	21	9/7	Wed	43	10/7	Fri	33	11/7	Mon	30	12/7	Wed	44
1/8	Fri	35	2/8	Mon	32	3/8	Tue	56	4/8	Fri	38	5/8	Sun	26	6/8	Wed	49	7/8	Fri	33	8/8	Mon	45	9/8	Thu	48	10/8	Sat	38	11/8	Tue	39	12/8	Thu	42
1/9	Sat	37	2/9	Tue	45	3/9	Wed	66	4/9	Sat	30	5/9	Mon	44	6/9	Thu	45	7/9	Sat	49	8/9	Tue	56	9/9	Fri	32	10/9	Sun	32	11/9	Wed	38	12/9	Fri	45
1/10	Sun	38	2/10	Wed	60	3/10	Thu	57	4/10	Sun	39	5/10	Tue	57	6/10	Fri	30	7/10	Sun	32	8/10	Wed	56	9/10	Sat	46	10/10	Mon	35	11/10	Thu	64	12/10	Sat	39
1/11	Mon	47	2/11	Thu	63	3/11	Fri	47	4/11	Mon	56	5/11	Wed	60	6/11	Sat	46	7/11	Mon	32	8/11	Thu	53	9/11	Sun	31	10/11	Tue	26	11/11	Fri	50	12/11	Sun	11
1/12	Tue	43	2/12	Fri	59	3/12	Sat	57	4/12	Tue	76	5/12	Thu	42	6/12	Sun	44	7/12	Tue	53	8/12	Fri	69	9/12	Mon	54	10/12	Wed	34	11/12	Sat	42	12/12	Mon	29
1/13	Wed	38	2/13	Sat	97	3/13	Sun	52	4/13	Wed	64	5/13	Fri	46	6/13	Mon	75	7/13	Wed	53	8/13	Sat	76	9/13	Tue	54	10/13	Thu	36	11/13	Sun	40	12/13	Tue	35
1/14	Thu	25	2/14	Sun	49	3/14	Mon	58	4/14	Thu	41	5/14	Sat	47	6/14	Tue	65	7/14	Thu	36	8/14	Sun	27	9/14	Wed	54	10/14	Fri	37	11/14	Mon	38	12/14	Wed	45
1/15	Fri	45	2/15	Mon	36	3/15	Tue	68	4/15	Fri	31	5/15	Sun	32	6/15	Wed	66	7/15	Fri	41	8/15	Mon	56	9/15	Thu	33	10/15	Sat	49	11/15	Tue	38	12/15	Thu	39
1/16	Sat	40	2/16	Tue	62	3/16	Wed	61	4/16	Sat	40	5/16	Mon	36	6/16	Thu	37	7/16	Sat	45	8/16	Tue	69	9/16	Fri	35	10/16	Sun	25	11/16	Wed	35	12/16	Fri	32
1/17	Sun	44	2/17	Wed	60	3/17	Thu	53	4/17	Sun	50	5/17	Tue	56	6/17	Fri	30	7/17	Sun	29	8/17	Wed	64	9/17	Sat	49	10/17	Mon	18	11/17	Thu	41	12/17	Sat	54
1/18	Mon	33	2/18	Thu	58	3/18	Fri	48	4/18	Mon	62	5/18	Wed	50	6/18	Sat	44	7/18	Mon	59	8/18	Thu	32	9/18	Sun	36	10/18	Tue	21	11/18	Fri	38	12/18	Sun	25
1/19	Tue	40	2/19	Fri	58	3/19	Sat	48	4/19	Tue	58	5/19	Thu	45	6/19	Sun	37	7/19	Tue	60	8/19	Fri	23	9/19	Mon	65	10/19	Wed	39	11/19	Sat	50	12/19	Mon	24
1/20	Wed	40	2/20	Sat	86	3/20	Sun	53	4/20	Wed	48	5/20	Fri	39	6/20	Mon	64	7/20	Wed	67	8/20	Sat	51	9/20	Tue	57	10/20	Thu	33	11/20	Sun	33	12/20	Tue	17
1/21	Thu	23	2/21	Sun	53	3/21	Mon	63	4/21	Thu	41	5/21	Sat	57	6/21	Tue	70	7/21	Thu	44	8/21	Sun	19	9/21	Wed	57	10/21	Fri	43	11/21	Mon	31	12/21	Wed	16
1/22	Fri	30	2/22	Mon	72	3/22	Tue	79	4/22	Fri	44	5/22	Sun	34	6/22	Wed	68	7/22	Fri	39	8/22	Mon	31	9/22	Thu	54	10/22	Sat	43	11/22	Tue	26	12/22	Thu	16
1/23	Sat	45	2/23	Tue	66	3/23	Wed	73	4/23	Sat	72	5/23	Mon	37	6/23	Thu	61	7/23	Sat	54	8/23	Tue	55	9/23	Fri	54	10/23	Sun	32	11/23	Wed	36	12/23	Fri	28
1/24	Sun	23	2/24	Wed	59	3/24	Thu	59	4/24	Sun	32	5/24	Tue	41	6/24	Fri	58	7/24	Sun	20	8/24	Wed	56	9/24	Sat	42	10/24	Mon	48	11/24	Thu	36	12/24	Sat	27
1/25	Mon	36	2/25	Thu	61	3/25	Fri	85	4/25	Mon	31	5/25	Wed	48	6/25	Sat	48	7/25	Mon	22	8/25	Thu	35	9/25	Sun	42	10/25	Tue	59	11/25	Fri	57	12/25	Sun	18
1/26	Tue	42	2/26	Fri	55	3/26	Sat	79	4/26	Tue	36	5/26	Thu	40	6/26	Sun	67	7/26	Tue	37	8/26	Fri	33	9/26	Mon	28	10/26	Wed	36	11/26	Sat	65	12/26	Mon	30
1/27	Wed	52	2/27	Sat	57	3/27	Sun	44	4/27	Wed	32	5/27	Fri	30	6/27	Mon	31	7/27	Wed	31	8/27	Sat	59	9/27	Tue	27	10/27	Thu	33	11/27	Sun	23	12/27	Tue	39
1/28	Thu	48	2/28	Sun	40	3/28	Mon	65	4/28	Thu	32	5/28	Sat	31	6/28	Tue	62	7/28	Thu	38	8/28	Sun	40	9/28	Wed	41	10/28	Fri	38	11/28	Mon	28	12/28	Wed	42
1/29	Fri	71	2/29	Mon	54	3/29	Tue	71	4/29	Fri	43	5/29	Sun	43	6/29	Wed	56	7/29	Fri	34	8/29	Mon	43	9/29	Thu	31	10/29	Sat	73	11/29	Tue	27	12/29	Thu	50
1/30	Sat	69	3/1			3/30	Wed	67	4/30	Sat	60	5/30	Mon	28	6/30	Thu	30	7/30	Sat	61	8/30	Tue	51	9/30	Fri	27	10/30	Sun	23	11/30	Wed	23	12/30	Fri	59
1/31	Sun	35	3/2			3/31	Thu	47		Sun		5/31	Tue	38		Fri		7/31	Sun	31	8/31	Wed	48				10/31	Mon	24	12/1	Thu		12/31	Sat	84
TOTAL		1,178	TOTAL		1,498	TOTAL		1,804	TOTAL		1,424	TOTAL		1,366	TOTAL		1,541	TOTAL		1,264	TOTAL		1,406	TOTAL		1,304	TOTAL		1,116	TOTAL		1,169	TOTAL		1,091

January 2017			February 2017			March 2017			April 2017			May 2017			June 2017			July 2017			August 2017			Sep 2017			October 2017			November 2017			December 2017		
Date	Day of Week	Overnight Totals	Date	Day of Week	Overnight Totals	Date	Day of Week	Overnight Totals	Date	Day of Week	Overnight Totals	Date	Day of Week	Overnight Totals	Date	Day of Week	Overnight Totals	Date	Day of Week	Overnight Totals	Date	Day of Week	Overnight Totals	Date	Day of Week	Overnight Totals	Date	Day of Week	Overnight Totals	Date	Day of Week	Overnight Totals	Date	Day of Week	Overnight Totals
1/1	Sun	39	2/1	Wed	49	3/1	Wed	66	4/1	Sat	45	5/1	Mon	39	6/1	Thu	41	7/1	Sat	39	8/1	Tue	43	9/1	Fri	32	10/1	Sun	33	11/1	Wed	40	12/1	Fri	39
1/2	Mon	21	2/2	Thu	27	3/2	Thu	38	4/2	Sun	61	5/2	Tue	52	6/2	Fri	28	7/2	Sun	32	8/2	Wed	44	9/2	Sat	34	10/2	Mon	19	11/2	Thu	25	12/2	Sat	64
1/3	Tue	28	2/3	Fri	22	3/3	Fri	39	4/3	Mon	44	5/3	Wed	61	6/3	Sat	27	7/3	Mon	28	8/3	Thu	33	9/3	Sun	37	10/3	Tue	17	11/3	Fri	50	12/3	Sun	34
1/4	Wed	37	2/4	Sat	26	3/4	Sat	35	4/4	Tue	37	5/4	Thu	38	6/4	Sun	25	7/4	Tue	32	8/4	Fri	28	9/4	Mon	19	10/4	Wed	39	11/4	Sat	31	12/4	Mon	40
1/5	Thu	27	2/5	Sun	27	3/5	Sun	52	4/5	Wed	59	5/5	Fri	28	6/5	Mon	46	7/5	Wed	7	8/5	Sat	56	9/5	Tue	28	10/5	Thu	33	11/5	Sun	27	12/5	Tue	36
1/6	Fri	25	2/6	Mon	34	3/6	Mon	54	4/6	Thu	44	5/6	Sat	31	6/6	Tue	69	7/6	Thu	20	8/6	Sun	16	9/6	Wed	30	10/6	Fri	28	11/6	Mon	42	12/6	Wed	37
1/7	Sat	60	2/7	Tue	36	3/7	Tue	51	4/7	Fri	55	5/7	Sun	28	6/7	Wed	52	7/7	Fri	29	8/7	Mon	32	9/7	Thu	30	10/7	Sat	37	11/7	Tue	48	12/7	Thu	42
1/8	Sun	20	2/8	Wed	34	3/8	Wed	37	4/8	Sat	66	5/8	Mon	46	6/8	Thu	27	7/8	Sat	28	8/8	Tue	44	9/8	Fri	28	10/8	Sun	26	11/8	Wed	48	12/8	Fri	44
1/9	Mon	32	2/9	Thu	35	3/9	Thu	39	4/9	Sun	43	5/9	Tue	39	6/9	Fri	35	7/9	Sun	17	8/9	Wed	34	9/9	Sat	42	10/9	Mon	34	11/9	Thu	53	12/9	Sat	45
1/10	Tue	42	2/10	Fri	32	3/10	Fri	27	4/10	Mon	30	5/10	Wed	42	6/10	Sat	32	7/10	Mon	29	8/10	Thu	17	9/10	Sun	24	10/10	Tue	41	11/10	Fri	50	12/10	Sun	23
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1/12	Thu	32	2/12	Sun	32	3/12	Sun	32	4/12	Wed	56	5/12	Fri	35	6/12	Mon	42	7/12	Wed	29	8/12	Sat	34	9/12	Tue	42	10/12	Thu	31	11/12	Sun	27	12/12	Tue	30
1/13	Fri	32	2/13	Mon	37	3/13	Mon	57	4/13	Thu	32	5/13	Sat	44	6/13	Tue	33	7/13	Thu	22	8/13	Sun	16	9/13	Wed	47	10/13	Fri	30	11/13	Mon	50	12/13	Wed	38
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1/15	Sun	26	2/15	Wed	49	3/15	Wed	47	4/15	Sat	28	5/15	Mon	37	6/15	Thu	26	7/15	Sat	43	8/15	Tue	51	9/15	Fri	22	10/15	Sun	19	11/15	Wed	69	12/15	Fri	43
1/16	Mon	23	2/16	Thu	46	3/16	Thu	43	4/16	Sun	17	5/16	Tue	36	6/16	Fri	30	7/16	Sun	21	8/16	Wed	49	9/16	Sat	34	10/16	Mon	34	11/16	Thu	44	12/16	Sat	73
1/17	Tue	41	2/17	Fri	67	3/17	Fri	35	4/17	Mon	33	5/17	Wed	45	6/17	Sat	43	7/17	Mon	42	8/17	Thu	26	9/17	Sun	22	10/17	Tue	27	11/17	Fri	54	12/17	Sun	47
1/18	Wed	72	2/18	Sat	70	3/18	Sat	40	4/18	Tue	50	5/18	Thu	42	6/18	Sun	21	7/18	Tue	41	8/18	Fri	38	9/18	Mon	47	10/18	Wed	39	11/18	Sat	69	12/18	Mon	50
1/19	Thu	59	2/19	Sun	66	3/19	Sun	46	4/19	Wed	70	5/19	Fri	23	6/19	Mon	33	7/19	Wed	30	8/19	Sat	52	9/19	Tue	59	10/19	Thu	52	11/19	Sun	29	12/19	Tue	34
1/20	Fri	61	2/20	Mon	51	3/20	Mon	55	4/20	Thu	51	5/20	Sat	40	6/20	Tue	40	7/20	Thu	32	8/20	Sun	39	9/20	Wed	59	10/20	Fri	36	11/20	Mon	29	12/20	Wed	31
1/21	Sat	55	2/21	Tue	65	3/21	Tue	42	4/21	Fri	59	5/21	Sun	33	6/21	Wed	35	7/21	Fri	27	8/21	Mon	34	9/21	Thu	32	10/21	Sat	32	11/21	Tue	15	12/21	Thu	20
1/22	Sun	26	2/22	Wed	62	3/22	Wed	71	4/22	Sat	53	5/22	Mon	51	6/22	Thu	57	7/22	Sat	45	8/22	Tue	45	9/22	Fri	33	10/22	Sun	31	11/22	Wed	37	12/22	Fri	23
1/23	Mon	35	2/23	Thu	50	3/23	Thu	65	4/23	Sun	75	5/23	Tue	54	6/23	Fri	37	7/23	Sun	10	8/23	Wed	41	9/23	Sat	60	10/23	Mon	35	11/23	Thu	18	12/23	Sat	24
1/24	Tue	49	2/24	Fri	41	3/24	Fri	39	4/24	Mon	50	5/24	Wed	78	6/24	Sat	51	7/24	Mon	24	8/24	Thu	26	9/24	Sun	37	10/24	Tue	39	11/24	Fri	51	12/24	Sun	17
1/25	Wed	49	2/25	Sat	49	3/25	Sat	49	4/25	Tue	27	5/25	Thu	27	6/25	Sun	33	7/25	Tue	48	8/25	Fri	29	9/25	Mon	41	10/25	Wed	54	11/25	Sat	67	12/25	Mon	6
1/26	Thu	31	2/26	Sun	31	3/26	Sun	41	4/26	Wed	40	5/26	Fri	29	6/26	Mon	47	7/26	Wed	48	8/26	Sat	29	9/26	Tue	38	10/26	Thu	30	11/26	Sun	29	12/26	Tue	12
1/27	Fri	37	2/27	Mon	51	3/27	Mon	68	4/27	Thu	30	5/27	Sat	28	6/27	Tue	41	7/27	Thu	26	8/27	Sun	32	9/27	Wed	45	10/27	Fri	46	11/27	Mon	31	12/27	Wed	28
1/28	Sat	46	2/28	Tue	59	3/28	Tue	62	4/28	Fri	34	5/28	Sun	49	6/28	Wed	49	7/28	Fri	31	8/28	Mon	34	9/28	Thu	23	10/28	Sat	51	11/28	Tue	39	12/28	Thu	39
1/29	Sun	29				3/29	Wed	70	4/29	Sat	28	5/29	Mon	11	6/29	Thu	36	7/29	Sat	40	8/29	Tue	41	9/29	Fri	36	10/29	Sun	17	11/29	Wed	37	12/29	Fri	43
1/30	Mon	49				3/30	Thu	77	4/30	Sun	36	5/30	Tue	21	6/30	Fri	30	7/30	Sun	25	8/30	Wed	37	9/30	Sat	39	10/30	Mon	14	11/30	Thu	45	12/30	Sat	64
1/31	Tue	49				3/31	Fri	43		Mon		5/31	Wed	42		Sat		7/31	Mon	43	8/31	Thu	23		Sun		10/31	Tue	19		Fri		12/31	Sun	105
TOTAL		1,205	TOTAL		1,234	TOTAL		1,523	TOTAL		1,346	TOTAL		1,200	TOTAL		1,121	TOTAL		939	TOTAL		1,094	TOTAL		1,085	TOTAL		1,017	TOTAL		1,233	TOTAL		1,212

January 2018 Date	Day of Week	Overnight Charges Overnight Count	February 2018 Date	Day of Week	Overnight Charges Overnight Count	March 2018 Date	Day of Week	Overnight Charges Overnight Count	April 2018 Date	Day of Week	Overnight Charges Overnight Count	May 2018 Date	Day of Week	Overnight Charges Overnight Count	June 2018 Date	Day of Week	Overnight Charges Overnight Count	July 2018 Date	Day of Week	Overnight Charges Overnight Count	August 2018 Date	Day of Week	Overnight Charges Overnight Count	September 2018 Date	Day of Week	Overnight Charges Overnight Count	October 2018 Date	Day of Week	Overnight Charges Overnight Count	November 2018 Date	Day of Week	Overnight Charges Overnight Count	December 2018 Date	Day of Week	Overnight Charges Overnight Count
1/1	Mon	22	2/1	Thu	30	3/1	Thu	36	4/1	Sun	33	5/1	Tue	28	6/1	Fri	27	7/1	Sun	22	8/1	Wed	41	9/1	Sat	36	10/1	Mon	16	11/1	Thu	26	12/1	Sat	24
1/2	Tue	7	2/2	Fri	15	3/2	Fri	30	4/2	Mon	34	5/2	Wed	26	6/2	Sat	33	7/2	Mon	15	8/2	Thu	30	9/2	Sun	50	10/2	Tue	16	11/2	Fri	24	12/2	Sun	17
1/3	Wed	15	2/3	Sat	23	3/3	Sat	39	4/3	Tue	53	5/3	Thu	20	6/3	Sun	28	7/3	Tue	16	8/3	Fri	20	9/3	Mon	18	10/3	Wed	24	11/3	Sat	33	12/3	Mon	5
1/4	Thu	20	2/4	Sun	20	3/4	Sun	33	4/4	Wed	47	5/4	Fri	26	6/4	Mon	49	7/4	Wed	28	8/4	Sat	41	9/4	Tue	39	10/4	Thu	17	11/4	Sun	19	12/4	Tue	37
1/5	Fri	20	2/5	Mon	31	3/5	Mon	30	4/5	Thu	47	5/5	Sat	35	6/5	Tue	50	7/5	Thu	20	8/5	Sun	20	9/5	Wed	39	10/5	Fri	22	11/5	Mon	37	12/5	Wed	6
1/6	Sat	36	2/6	Tue	41	3/6	Tue	33	4/6	Fri	44	5/6	Sun	37	6/6	Wed	61	7/6	Fri	27	8/6	Mon	44	9/6	Thu	40	10/6	Sat	21	11/6	Tue	26	12/6	Thu	73
1/7	Sun	23	2/7	Wed	44	3/7	Wed	34	4/7	Sat	42	5/7	Mon	42	6/7	Thu	51	7/7	Sat	26	8/7	Tue	54	9/7	Fri	18	10/7	Sun	17	11/7	Wed	34	12/7	Fri	48
1/8	Mon	13	2/8	Thu	31	3/8	Thu	47	4/8	Sun	33	5/8	Tue	49	6/8	Fri	22	7/8	Sun	25	8/8	Wed	46	9/8	Sat	21	10/8	Mon	31	11/8	Thu	36	12/8	Sat	42
1/9	Tue	18	2/9	Fri	55	3/9	Fri	32	4/9	Mon	25	5/9	Wed	35	6/9	Sat	36	7/9	Mon	25	8/9	Thu	38	9/9	Sun	13	10/9	Tue	33	11/9	Fri	41	12/9	Sun	23
1/10	Wed	24	2/10	Sat	78	3/10	Sat	42	4/10	Tue	21	5/10	Thu	29	6/10	Sun	19	7/10	Tue	26	8/10	Fri	26	9/10	Mon	16	10/10	Wed	28	11/10	Sat	37	12/10	Mon	29
1/11	Thu	17	2/11	Sun	36	3/11	Sun	37	4/11	Wed	24	5/11	Fri	40	6/11	Mon	26	7/11	Wed	30	8/11	Sat	59	9/11	Tue	22	10/11	Thu	35	11/11	Sun	16	12/11	Tue	35
1/12	Fri	21	2/12	Mon	34	3/12	Mon	57	4/12	Thu	26	5/12	Sat	33	6/12	Tue	53	7/12	Thu	29	8/12	Sun	20	9/12	Wed	35	10/12	Fri	36	11/12	Mon	26	12/12	Wed	25
1/13	Sat	31	2/13	Tue	27	3/13	Tue	47	4/13	Fri	32	5/13	Sun	19	6/13	Wed	57	7/13	Fri	28	8/13	Mon	42	9/13	Thu	27	10/13	Sat	27	11/13	Tue	27	12/13	Thu	26
1/14	Sun	12	2/14	Wed	27	3/14	Wed	38	4/14	Sat	46	5/14	Mon	45	6/14	Thu	32	7/14	Sat	29	8/14	Tue	39	9/14	Fri	26	10/14	Sun	6	11/14	Wed	43	12/14	Fri	29
1/15	Mon	26	2/15	Thu	48	3/15	Thu	26	4/15	Sun	18	5/15	Tue	40	6/15	Fri	11	7/15	Sun	22	8/15	Wed	40	9/15	Sat	19	10/15	Mon	59	11/15	Thu	43	12/15	Sat	24
1/16	Tue	43	2/16	Fri	40	3/16	Fri	32	4/16	Mon	32	5/16	Wed	49	6/16	Sat	21	7/16	Mon	43	8/16	Thu	19	9/16	Sun	20	10/16	Tue	45	11/16	Fri	34	12/16	Sun	9
1/17	Wed	59	2/17	Sat	52	3/17	Sat	47	4/17	Tue	35	5/17	Thu	25	6/17	Sun	17	7/17	Tue	50	8/17	Fri	15	9/17	Mon	34	10/17	Wed	41	11/17	Sat	44	12/17	Mon	25
1/18	Thu	51	2/18	Sun	52	3/18	Sun	47	4/18	Wed	50	5/18	Fri	33	6/18	Mon	31	7/18	Wed	20	8/18	Sat	34	9/18	Tue	37	10/18	Thu	35	11/18	Sun	23	12/18	Tue	32
1/19	Fri	50	2/19	Mon	38	3/19	Mon	63	4/19	Thu	45	5/19	Sat	47	6/19	Tue	28	7/19	Thu	23	8/19	Sun	24	9/19	Wed	29	10/19	Fri	36	11/19	Mon	36	12/19	Wed	18
1/20	Sat	42	2/20	Tue	14	3/20	Tue	68	4/20	Fri	28	5/20	Sun	33	6/20	Wed	41	7/20	Fri	28	8/20	Mon	45	9/20	Thu	45	10/20	Sat	50	11/20	Tue	20	12/20	Thu	16
1/21	Sun	29	2/21	Wed	58	3/21	Wed	57	4/21	Sat	56	5/21	Mon	39	6/21	Thu	28	7/21	Sat	44	8/21	Tue	61	9/21	Fri	21	10/21	Sun	26	11/21	Wed	24	12/21	Fri	21
1/22	Mon	33	2/22	Thu	57	3/22	Thu	62	4/22	Sun	28	5/22	Tue	47	6/22	Fri	33	7/22	Sun	15	8/22	Wed	45	9/22	Sat	32	10/22	Mon	40	11/22	Thu	29	12/22	Sat	17
1/23	Tue	32	2/23	Fri	72	3/23	Fri	50	4/23	Mon	18	5/23	Wed	35	6/23	Sat	33	7/23	Mon	31	8/23	Thu	28	9/23	Sun	21	10/23	Tue	39	11/23	Fri	35	12/23	Sun	17
1/24	Wed	33	2/24	Sat	62	3/24	Sat	49	4/24	Tue	35	5/24	Thu	20	6/24	Sun	16	7/24	Tue	30	8/24	Fri	34	9/24	Mon	39	10/24	Wed	32	11/24	Sat	17	12/24	Mon	8
1/25	Thu	18	2/25	Sun	44	3/25	Sun	44	4/25	Wed	28	5/25	Fri	22	6/25	Mon	30	7/25	Wed	39	8/25	Sat	47	9/25	Tue	50	10/25	Thu	30	11/25	Sun	36	12/25	Tue	8
1/26	Fri	24	2/26	Mon	44	3/26	Mon	61	4/26	Thu	23	5/26	Sat	22	6/26	Tue	40	7/26	Thu	18	8/26	Sun	22	9/26	Wed	40	10/26	Fri	31	11/26	Mon	35	12/26	Wed	17
1/27	Sat	31	2/27	Tue	25	3/27	Tue	54	4/27	Fri	21	5/27	Sun	38	6/27	Wed	41	7/27	Fri	21	8/27	Mon	37	9/27	Thu	38	10/27	Sat	53	11/27	Tue	47	12/27	Thu	19
1/28	Sun	41	2/28	Wed	35	3/28	Wed	44	4/28	Sat	28	5/28	Mon	22	6/28	Thu	25	7/28	Sat	19	8/28	Tue	47	9/28	Fri	47	10/28	Sun	22	11/28	Wed	26	12/28	Fri	26
1/29	Mon	29	3/1	Thu		3/29	Thu	48	4/29	Sun	27	5/29	Tue	24	6/29	Fri	18	7/29	Sun	21	8/29	Wed	34	9/29	Sat	34	10/29	Mon	35	11/29	Thu	25	12/29	Sat	30
1/30	Tue	29	3/2	Fri		3/30	Fri	41	4/30	Mon	28	5/30	Wed	33	6/30	Sat	35	7/30	Mon	23	8/30	Thu	16	9/30	Sun	27	10/30	Tue	27	11/30	Fri	30	12/30	Sun	37
1/31	Wed	19	3/3	Sat		3/31	Sat	43	5/1	Tue		5/31	Thu	20	7/1	Sun		7/31	Tue	34	8/31	Fri	28	10/1	Mon		10/31	Wed	19	12/1	Sat		12/31	Mon	81
TOTAL		868	TOTAL		1,133	TOTAL		1,371	TOTAL		1,007	TOTAL		1,013	TOTAL		992	TOTAL		827	TOTAL		1,096	TOTAL		878	TOTAL		946	TOTAL		929	TOTAL		828

January 2019 Date	Day of Week	Overnight Totals	February 2019 Date	Day of Week	Overnight Totals	March 2019 Date	Day of Week	Overnight Totals	April 2019 Date	Day of Week	Overnight Totals	May 2019 Date	Day of Week	Overnight Totals	June 2019 Date	Day of Week	Overnight Totals	July 2019 Date	Day of Week	Overnight Totals	August 2019 Date	Day of Week	Overnight Totals	Sep 2019 Date	Day of Week	Overnight Totals	October 2019 Date	Day of Week	Overnight Totals	November 2019 Date	Day of Week	Overnight Totals	December 2019 Date	Day of Week	Overnight Totals
12/31	Mon		2/1	Fri	23	3/1	Fri	22	4/1	Mon	25	5/1	Wed	35	6/1	Sat	24	7/1	Mon	13	8/1	Thu	19	9/1	Sun	42	10/1	Tue	20	11/1	Fri	47	12/1	Sun	23
1/1	Tue	38	2/2	Sat	26	3/2	Sat	42	4/2	Tue	25	5/2	Thu	26	6/2	Sun	16	7/2	Tue	19	8/2	Fri	14	9/2	Mon	23	10/2	Wed	34	11/2	Sat	53	12/2	Mon	32
1/2	Wed	11	2/3	Sun	32	3/3	Sun	51	4/3	Wed	25	5/3	Fri	0	6/3	Mon	26	7/3	Wed	17	8/3	Sat	30	9/3	Tue	29	10/3	Thu	23	11/3	Sun	30	12/3	Tue	28
1/3	Thu	17	2/4	Mon	38	3/4	Mon	44	4/4	Thu	36	5/4	Sat	35	6/4	Tue	26	7/4	Thu	55	8/4	Sun	24	9/4	Wed	31	10/4	Fri	30	11/4	Mon	49	12/4	Wed	27
1/4	Fri	19	2/5	Tue	47	3/5	Tue	38	4/5	Fri	36	5/5	Sun	28	6/5	Wed	26	7/5	Fri	28	8/5	Mon	30	9/5	Thu	34	10/5	Sat	42	11/5	Tue	51	12/5	Thu	50
1/5	Sat	24	2/6	Wed	54	3/6	Wed	45	4/6	Sat	52	5/6	Mon	31	6/6	Thu	17	7/6	Sat	35	8/6	Tue	31	9/6	Fri	25	10/6	Sun	22	11/6	Wed	39	12/6	Fri	50
1/6	Sun	12	2/7	Thu	56	3/7	Thu	45	4/7	Sun	37	5/7	Tue	35	6/7	Fri	24	7/7	Sun	9	8/7	Wed	21	9/7	Sat	33	10/7	Mon	33	11/7	Thu	35	12/7	Sat	53
1/7	Mon	14	2/8	Fri	35	3/8	Fri	45	4/8	Mon	40	5/8	Wed	49	6/8	Sat	33	7/8	Mon	21	8/8	Thu	19	9/8	Sun	24	10/8	Tue	41	11/8	Fri	39	12/8	Sun	20
1/8	Tue	18	2/9	Sat	40	3/9	Sat	44	4/9	Tue	43	5/9	Thu	41	6/9	Sun	27	7/9	Tue	27	8/9	Fri	26	9/9	Mon	18	10/9	Wed	50	11/9	Sat	42	12/9	Mon	34
1/9	Wed	20	2/10	Sun	49	3/10	Sun	41	4/10	Wed	35	5/10	Fri	27	6/10	Mon	27	7/10	Wed	27	8/10	Sat	26	9/10	Tue	28	10/10	Thu	36	11/10	Sun	43	12/10	Tue	37
1/10	Thu	24	2/11	Mon	30	3/11	Mon	52	4/11	Thu	37	5/11	Sat	47	6/11	Tue	22	7/11	Thu	20	8/11	Sun	18	9/11	Wed	25	10/11	Fri	34	11/11	Mon	33	12/11	Wed	27
1/11	Fri	43	2/12	Tue	39	3/12	Tue	47	4/12	Fri	31	5/12	Sun	24	6/12	Wed	27	7/12	Fri	20	8/12	Mon	18	9/12	Thu	25	10/12	Sat	32	11/12	Tue	40	12/12	Thu	30
1/12	Sat	31	2/13	Wed	39	3/13	Wed	43	4/13	Sat	36	5/13	Mon	44	6/13	Thu	23	7/13	Sat	32	8/13	Tue	29	9/13	Fri	25	10/13	Sun	30	11/13	Wed	37	12/13	Fri	46
1/13	Sun	31	2/14	Thu	43	3/14	Thu	67	4/14	Sun	19	5/14	Tue	49	6/14	Fri	19	7/14	Sun	15	8/14	Wed	21	9/14	Sat	35	10/14	Mon	33	11/14	Thu	36	12/14	Sat	65
1/14	Mon	56	2/15	Fri	46	3/15	Fri	35	4/15	Mon	32	5/15	Wed	41	6/15	Sat	33	7/15	Mon	13	8/15	Thu	23	9/15	Sun	21	10/15	Tue	48	11/15	Fri	37	12/15	Sun	34
1/15	Tue	51	2/16	Sat	55	3/16	Sat	29	4/16	Tue	41	5/16	Thu	37	6/16	Sun	16	7/16	Tue	16	8/16	Fri	25	9/16	Mon	33	10/16	Wed	29	11/16	Sat	53	12/16	Mon	38
1/16	Wed	57	2/17	Sun	42	3/17	Sun	46	4/17	Wed	34	5/17	Fri	29	6/17	Mon	18	7/17	Wed	23	8/17	Sat	51	9/17	Tue	24	10/17	Thu	29	11/17	Sun	20	12/17	Tue	29
1/17	Thu	50	2/18	Mon	42	3/18	Mon	66	4/18	Thu	31	5/18	Sat	65	6/18	Tue	29	7/18	Thu	16	8/18	Sun	27	9/18	Wed	24	10/18	Fri	20	11/18	Mon	37	12/18	Wed	35
1/18	Fri	54	2/19	Tue	37	3/19	Tue	56	4/19	Fri	46	5/19	Sun	42	6/19	Wed	23	7/19	Fri	8	8/19	Mon	35	9/19	Thu	23	10/19	Sat	53	11/19	Tue	30	12/19	Thu	25
1/19	Sat	43	2/20	Wed	49	3/20	Wed	43	4/20	Sat	45	5/20	Mon	30	6/20	Thu	29	7/20	Sat	22	8/20	Tue	33	9/20	Fri	22	10/20	Sun		11/20	Wed	29	12/20	Fri	32
1/20	Sun	37	2/21	Thu	62	3/21	Thu	34	4/21	Sun	17	5/21	Tue	30	6/21	Fri	31	7/21	Sun	11	8/21	Wed	18	9/21	Sat	27	10/21	Mon		11/21	Thu	27	12/21	Sat	28
1/21	Mon	23	2/22	Fri	35	3/22	Fri	35	4/22	Mon	31	5/22	Wed	49	6/22	Sat	41	7/22	Mon	31	8/22	Thu	23	9/22	Sun	11	10/22	Tue		11/22	Fri	32	12/22	Sun	28
1/22	Tue	30	2/23	Sat	44	3/23	Sat	39	4/23	Tue	22	5/23	Thu	36	6/23	Sun	18	7/23	Tue	24	8/23	Fri	25	9/23	Mon	18	10/23	Wed		11/23	Sat	65	12/23	Mon	14
1/23	Wed	31	2/24	Sun	34	3/24	Sun	48	4/24	Wed	26	5/24	Fri	28	6/24	Mon	19	7/24	Wed	31	8/24	Sat	48	9/24	Tue	8	10/24	Thu		11/24	Sun	37	12/24	Tue	15
1/24	Thu	29	2/25	Mon	47	3/25	Mon	60	4/25	Thu	31	5/25	Sat	37	6/25	Tue	27	7/25	Thu	27	8/25	Sun	18	9/25	Wed	20	10/25	Fri		11/25	Mon	35	12/25	Wed	12
1/25	Fri	39	2/26	Tue	40	3/26	Tue	58	4/26	Fri	43	5/26	Sun	49	6/26	Wed	16	7/26	Fri	25	8/26	Mon	31	9/26	Thu	27	10/26	Sat		11/26	Tue	17	12/26	Thu	31
1/26	Sat	36	2/27	Wed	27	3/27	Wed	55	4/27	Sat	64	5/27	Mon	47	6/27	Thu	19	7/27	Sat	29	8/27	Tue	39	9/27	Fri	34	10/27	Sun		11/27	Wed	30	12/27	Fri	52
1/27	Sun	43	2/28	Thu	19	3/28	Thu	39	4/28	Sun	34	5/28	Tue	32	6/28	Fri	15	7/28	Sun	10	8/28	Wed	41	9/28	Sat	31	10/28	Mon		11/28	Thu	33	12/28	Sat	74
1/28	Mon	40	3/1	Fri		3/29	Fri	45	4/29	Mon	49	5/29	Wed	25	6/29	Sat	24	7/29	Mon	23	8/29	Thu	24	9/29	Sun	10	10/29	Tue		11/29	Fri	38	12/29	Sun	41
1/29	Tue	34	3/2	Sat		3/30	Sat	58	4/30	Tue	31	5/30	Thu	29	6/30	Sun	12	7/30	Tue	34	8/30	Fri	19	9/30	Mon	20	10/30	Wed		11/30	Sat	47	12/30	Mon	32
1/30	Wed	32	3/3	Sun		3/31	Sun	24	5/1	Wed		5/31	Fri	19	7/1	Mon		7/31	Wed	33	8/31	Sat	30	10/1	Tue		10/31	Thu		12/1	Sun		12/31	Tue	97
TOTAL		996	**TOTAL**		1,130	**TOTAL**		1,396	**TOTAL**		1,054	**TOTAL**		1,096	**TOTAL**		699	**TOTAL**		714	**TOTAL**		836	**TOTAL**		750	**TOTAL**		639	**TOTAL**		1,141	**TOTAL**		1,139

Appendix F – Hotel Parking Occupancy Data

F

Field Data Services of Arizona, Inc.
520.316.6745

veracitytrafficgroup

Locations: Old Town Scottsdale

HOTEL PARKING STUDY

	Friday, March 23, 2018				Saturday, March 24, 2018			
	Hotel A	Hotel A Handicapped	Hotel B	Hotel B Handicapped	Hotel A	Hotel A Handicapped	Hotel B	Hotel B Handicapped
08:00:00 PM	67	0	87	3	65	1	118	4
08:30:00 PM	65	0	80	3	65	1	113	4
09:00:00 PM	58	0	93	4	64	1	119	5
09:30:00 PM	65	0	96	3	57	1	117	6
10:00:00 PM	66	0	105	4	73	1	123	6
10:30:00 PM	71	0	111	3	72	1	126	7
11:00:00 PM	69	0	108	4	76	1	137	7
11:30:00 PM	71	0	103	5	79	1	128	7
12:00:00 AM	72	0	111	5	79	1	127	7
12:30:00 AM	72	0	112	5	85	1	130	7
01:00:00 AM	71	0	113	5	81	2	126	7
01:30:00 AM	70	0	113	5	82	2	125	7
02:00:00 AM	72	0	112	5	80	2	125	7
02:30:00 AM	71	0	113	5	80	2	126	7
03:00:00 AM	69	0	113	5	79	2	124	7
03:30:00 AM	70	0	113	5	78	2	123	7
04:00:00 AM	68	0	112	5	78	2	123	7
04:30:00 AM	71	0	109	5	79	2	121	7
05:00:00 AM	71	0	111	5	77	2	121	7
05:30:00 AM	70	0	112	5	79	2	119	7
06:00:00 AM	74	0	111	5	76	2	121	6
06:30:00 AM	75	0	108	5	79	2	117	6
07:00:00 AM	77	0	111	5	78	2	114	6
07:30:00 AM	76	0	108	5	73	2	114	6
08:00:00 AM	75	0	112	5	66	2	115	6
TOTALS	**1756**	**0**	**2677**	**114**	**1880**	**40**	**3052**	**160**

	Hotel C	
	Friday, February 21st, 2020	
Time	Hotel C	Occupied Parking Stalls Per Available Room
10:00:00 PM	26	0.48
10:30:00 PM	27	0.50
11:00:00 PM	27	0.50
11:30:00 PM	29	0.54
12:00:00 AM	30	0.56
12:30:00 AM	30	0.56
01:00:00 AM	31	0.57
01:30:00 AM	33	0.61
02:00:00 AM	34	0.63
02:30:00 AM	35	0.65
03:00:00 AM	33	0.61
03:30:00 AM	34	0.63
04:00:00 AM	34	0.63
04:30:00 AM	34	0.63
05:00:00 AM	33	0.61
05:30:00 AM	33	0.61
06:00:00 AM	30	0.56
06:30:00 AM	32	0.59
07:00:00 AM	30	0.56
Max	35	0.65
Average	32	0.580

Appendix G – Experience Scottsdale Survey

Q1 Where are you located?

Answered: 9   Skipped: 0
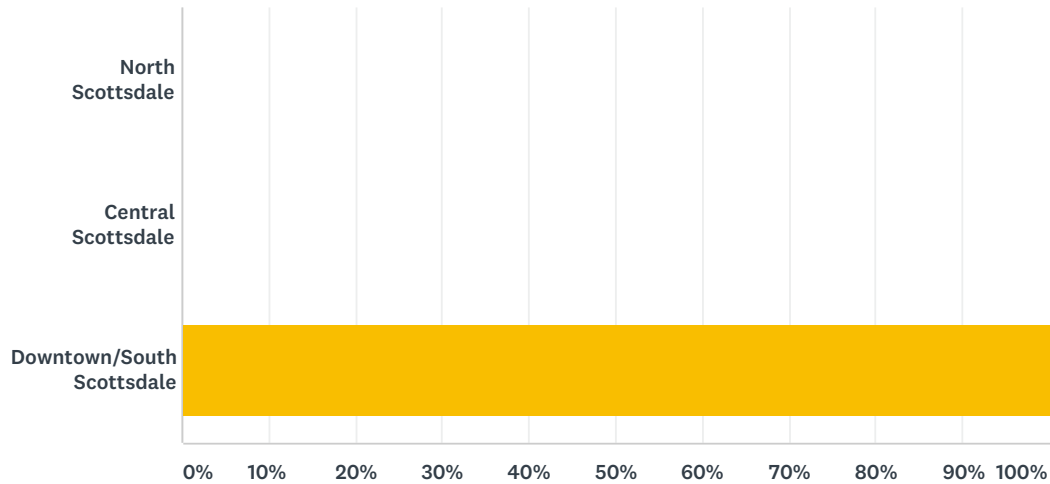
ANSWER CHOICES	RESPONSES	
North Scottsdale	0.00%	0
Central Scottsdale	0.00%	0
Downtown/South Scottsdale	100.00%	9
TOTAL		9

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Q2 Which best describes your property?

Answered: 9   Skipped: 0
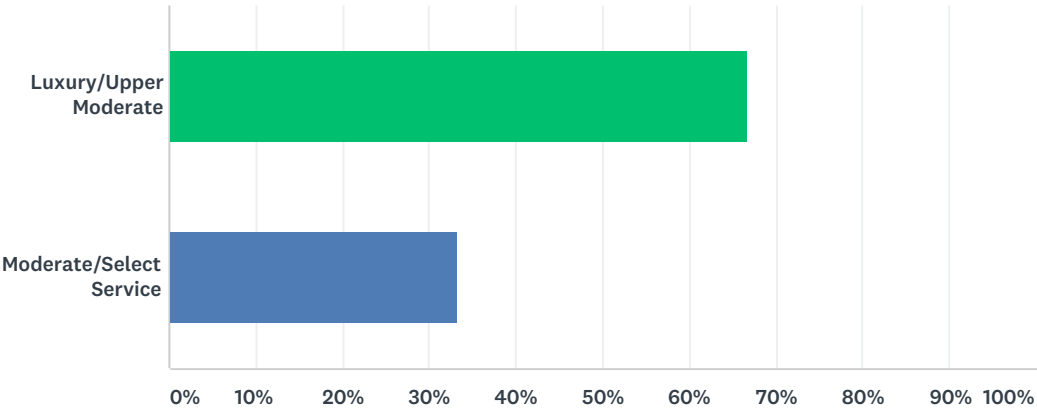
ANSWER CHOICES	RESPONSES	
Luxury/Upper Moderate	66.67%	6
Moderate/Select Service	33.33%	3
TOTAL		9

Q3 How much indoor meeting space do you offer?

Answered: 9   Skipped: 0
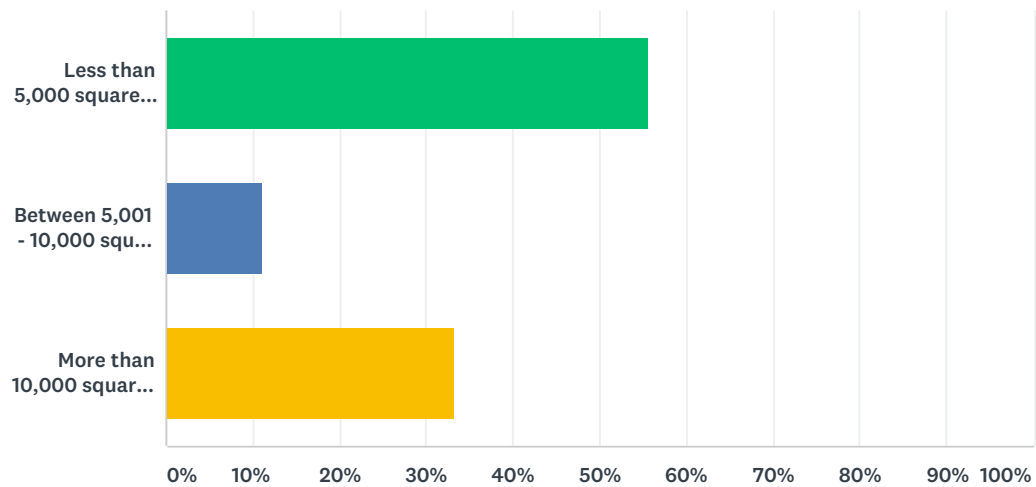
ANSWER CHOICES	RESPONSES	
Less than 5,000 square feet	55.56%	5
Between 5,001 - 10,000 square feet	11.11%	1
More than 10,000 square feet	33.33%	3
TOTAL		9

Q4 Which statement most accurately reflects what you see at your property?

Answered: 9   Skipped: 0
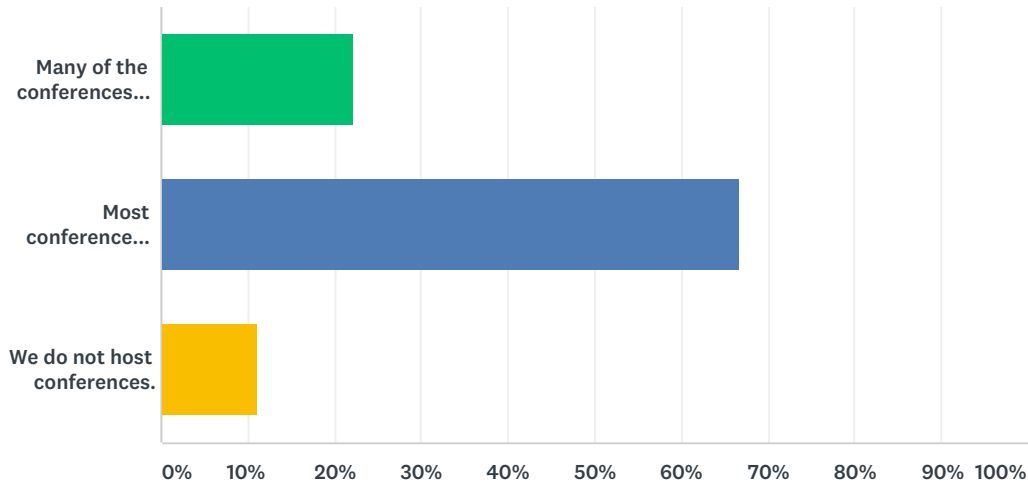
ANSWER CHOICES	RESPONSES	
Many of the conferences held at our property include non-overnight guests, therefore, we need parking for both guests and conference attendees.	22.22%	2
Most conference attendees stay at the property, therefore, we only need parking for guests.	66.67%	6
We do not host conferences.	11.11%	1
TOTAL		9

#	OTHER (PLEASE SPECIFY)	DATE
1	Only 50-60% of our guests have cars. The rest take taxi, uber, shuttle, or do ride share. Also, since we're in Old Town, in which numerous restaurants and shopping are a short walk or golf cart ride away, a vehicle is not a necessity in our area.	2/2/2018 8:45 AM

Q5 Which statement most accurately reflects what you see at your property?

Answered: 9   Skipped: 0
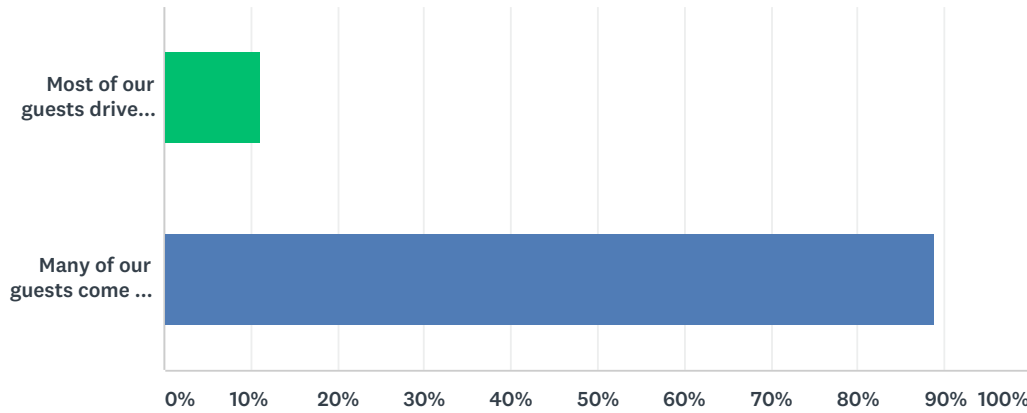
ANSWER CHOICES	RESPONSES	
Most of our guests drive here (either in their own car or a rental car), so every room needs its own parking space.	11.11%	1
Many of our guests come as groups (family, friends, colleagues), so we only need one parking space for every two or three rooms.	88.89%	8
TOTAL		9

#	OTHER (PLEASE SPECIFY)	DATE
1	We can regularly sell all 199 rooms and still have 30 empty parking spaces.	2/2/2018 8:45 AM

Q6 Which statement most accurately reflects what you see at your property?

Answered: 9   Skipped: 0
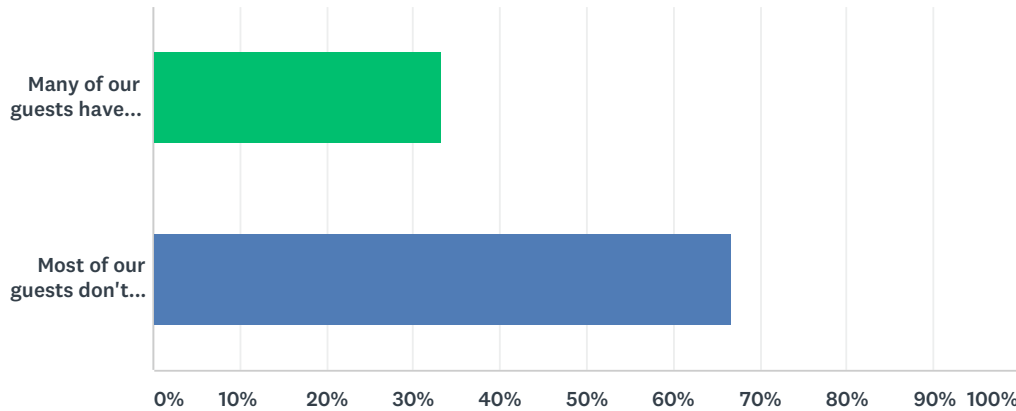
ANSWER CHOICES	RESPONSES	
Many of our guests have family or friends who visit them while on property so we need parking for these visitors.	33.33%	3
Most of our guests don't receive local visitors so we only need parking for our overnight guests.	66.67%	6
TOTAL		9

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q7 Which statement most accurately reflects what you see at your property?

Answered: 8   Skipped: 1
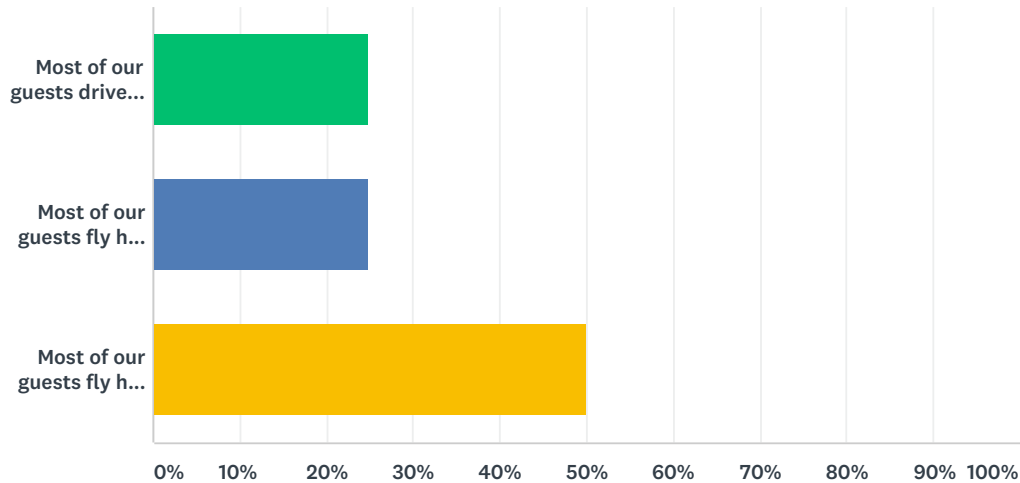
ANSWER CHOICES	RESPONSES	
Most of our guests drive here or fly here and rent a car.	25.00%	2
Most of our guests fly here and only rent a car if going to another part of the state.	25.00%	2
Most of our guests fly here and use ride share/taxis when they need to travel in the Valley.	50.00%	4
TOTAL		8

#	OTHER (PLEASE SPECIFY)	DATE
1	Hotel parking is always full. Shared parking lot with businesses impacts usage as well. Locals from businesses and condos near by try to park in our lots. Not enough parking for everyone. Hotel hires security to ensure no "bar/entertainment" locals parking at hotel.	2/5/2018 10:07 AM
2	We have just recently opened so its hard to say but based on current guests we see about a 50/50 split from guests bringing their own vehicles and guests arriving via Lyft/Uber or Taxi	2/2/2018 12:23 PM

Appendix H – Don & Charlies Parking Master Plan

H

Don and Charlie's Hotel
Parking Master Plan

Prepared for:

Tyler Kent
OpWest Ventures
3920 E Thomas Road, #15330
Phoenix, AZ 85018

Prepared by:

J2 Engineering and Environmental Design
4649 E. Cotton Gin Loop, Suite B2
Phoenix, AZ 84040

Project Number: 17.1064
March 13, 2018

Appendix F – Don and Charlie's Hotel Parking Master Plan (App. F)

Date	Rooms Available #	Occupied #	Occupancy %	3am Cars Valet #	Self #	Total #	Drive in %	Stalls Available #	Occupancy %	# Days Entered	West Coast
											25.4%
0160:0161: - Marriott La Jolla	11532	9528	82.6%	1254	3135	4389	46.1%	14260	30.8%	31	
0176 - Westin Gaslamp Quarter	13950	10586	75.9%	2105	0	2105	19.9%	5580	37.7%	31	
0270:0461: - Wyndham San Diego Bayside	18600	13140	70.6%	454	2776	3230	24.6%	8990	35.9%	31	
0271 - US Grant Hotel Valet	8370	6255	74.7%	1831	0	1831	29.3%	6820	26.8%	31	
0316 - Marriott Vacation Club Pulse	8184	3387	41.4%	835	462	1297	38.3%	1395	93.0%	31	
0328 - Westin San Diego	13516	10221	75.6%	1195	0	1195	11.7%	2015	59.3%	31	
0370:0371: - Marriott Marquis & Marina San Diego	42160	34779	82.5%	2586	3920	6506	18.7%	29946	21.7%	31	
0375 - Town & Country Convention	29388	8878	30.2%	0	3559	3559	40.1%	42625	8.3%	31	
0575:0576: - Marriott Mission Valley	10850	8324	76.7%	299	2498	2797	33.6%	12121	23.1%	31	
0674:0675: - Westin Seattle Hotel	27621	18082	65.5%	1413	1088	2501	13.8%	7161	34.9%	31	
1050 - Omni Hotel San Diego	15841	12540	79.2%	1450	0	1450	11.6%	6820	21.3%	31	
1076 - Marriott Gaslamp Quarter SD	9486	7145	75.3%	1702	0	1702	23.8%	6386	26.7%	31	
1159 - Hard Rock Hotel	13020	8997	69.1%	1352	0	1352	15.0%	5890	23.0%	31	
1167:1303: - Hyatt Regency La Jolla Valet	12927	9635	74.5%	1137	2076	3213	33.3%	9300	34.5%	31	
1180 - Hilton SD Bayfront Hotel	36890	33719	91.4%	1283	5652	6935	20.6%	27714	25.0%	31	
1189:1190: - Hilton La Jolla Torrey Pines	12214	9451	77.4%	1416	2920	4336	45.9%	17360	25.0%	31	
1196 - The Keating Hotel	1085	0	0.0%	243	0	243	#DIV/0!	775	31.4%	31	
1207 - Indigo Hotel	6510	5293	81.3%	1454	0	1454	27.5%	2015	72.2%	31	
1241:1242: - Grand Hyatt San Diego	50468	34928	69.2%	2153	5130	7283	20.9%	36022	20.2%	31	
1244:1245: - Hyatt Regency Mission Bay	13299	10115	76.1%	1107	2682	3789	37.5%	3100	122.2%	31	
1324 - Lane Field North Garage	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	31	
1325 - Lane Field North Hotel	12400	9025	72.8%	639	3475	4114	45.6%	12834	32.1%	31	
1535 - San Diego Bayside Campus	11284	7708	68.3%	2615	936	3551	46.1%	5022	70.7%	31	
1539 - Pendry San Diego	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
1543 - Hotel Republic	7998	6610	82.6%	1291	0	1291	19.5%	1860	69.4%	31	
1548 - Andaz San Diego	4929	2135	43.3%	566	0	566	26.5%	3100	18.3%	31	
2073 - W La West Beverly Hills	9269	7727	83.4%	2706	0	2706	35.0%	4836	56.0%	31	
2085 - Hyatt Regency Huntington Beach Valet	16027	10155	63.4%	4501	0	4501	44.3%	30690	14.7%	31	
2225:2226: - Crowne Plaza Redondo Beach Hotel	10726	9501	88.6%	626	2836	3462	36.4%	7967	43.5%	31	
2229:2230: - Doubletree La Downtown	13516	10715	79.3%	1848	1930	3778	35.3%	12648	29.9%	31	
2240 - Hampton Inn and Suites La/Santa Monica	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
2241 - Courtyard Santa Monica	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
2514 - Hyatt Regency Newport Beach Valet	12493	8797	70.4%	1562	0	1562	17.8%	5890	26.5%	31	
2515 - Hyatt Regency Newport Beach Self	12493	0	0.0%	0	2252	2252	#DIV/0!	10850	20.8%	31	
2539 - Waterfront Beach Resort Valet	8990	4859	54.0%	2704	0	2704	55.6%	10850	24.9%	31	
2613 - Pasea Hotel and Spa	7750	4903	63.3%	2504	0	2504	51.1%	11129	22.5%	31	
3000 - Hilton Oakland	11222	7904	70.4%	0	2911	2911	36.8%	15500	18.8%	31	
3016 - Oakland Marriott	15159	10396	68.6%	1460	0	1460	14.0%	1240	117.7%	31	
3109 - 900 13th Street - Sacramento	15624	10699	68.5%	0	3066	3066	28.7%	26784	11.4%	31	
3110 - Sheraton Grand Sacramento	15593	10884	69.8%	2589	0	2589	23.8%	2790	92.8%	31	
3151 - Westin Portland	6355	4741	74.6%	1406	0	1406	29.7%	2976	47.2%	31	
3155:3157: - Hotel Deluxe Portland	3968	3037	76.5%	664	232	896	29.5%	1550	57.8%	31	
3156 - Sentinel	3100	2458	79.3%	621	0	621	25.3%	1860	33.4%	31	
3170 - Embassy Suites Hilton Portland	8556	6454	75.4%	1434	0	1434	22.2%	31000	4.6%	31	
3171 - Embassy Suites Hilton Portland Garage	8556	6428	75.1%	0	774	774	12.0%	9083	8.5%	31	
3216 - Fairmont Olympic Hotel Seattle	13950	8761	62.8%	1363	101	1464	16.7%	3410	42.9%	31	
3219 - The Arctic Club Seattle	3720	2556	68.7%	413	0	413	16.2%	1240	33.3%	31	
3220 - Hotel Lucia	3937	2965	75.3%	453	0	453	15.3%	1085	41.8%	31	
3252 - Hyatt Regency Bellevue	24397	13431	55.1%	1329	957	2286	17.0%	12214	18.7%	31	
3257 - Westin Bellevue	10509	6569	62.5%	1084	273	1357	20.7%	5239	25.9%	31	
3272 - Seattle Marriott Bellevue	11904	8127	68.3%	2589	0	2589	31.9%	5580	46.4%	31	
3273 - Sheraton Seattle Hotel - Valet	38998	21923	56.2%	1826	0	1826	8.3%	12400	14.7%	31	
3284 - Hilton Garden Inn Seattle	6882	5787	84.1%	882	0	882	15.2%	1550	56.9%	31	
3285 - W Bellevue	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
3452 - Hyatt Regency Phoenix	21483	16944	78.9%	1166	619	1785	10.5%	4650	38.4%	31	
3465:3466: - The Phoenician	20150	15301	75.9%	682	973	1655	10.8%	18600	8.9%	31	
3585:3587: - Omni Dallas Hotel	31031	24688	79.6%	5092	2158	7250	29.4%	21762	33.3%	31	
3595 - The Stoneleigh - Le Meridien Dallas	5270	3978	75.5%	1619	65	1684	42.3%	4650	36.2%	31	
3604 - St Regis Hotel	7192	4686	65.2%	1586	0	1586	33.8%	5425	29.2%	31	
3606:3619: - Woodlands Marriott	10633	7257	68.2%	1274	1631	2905	40.0%	3100	93.7%	31	
3621:3622: - Hilton Houston Post Oak	13888	8157	58.7%	955	2515	3470	42.5%	10106	34.3%	31	
3634 - Embassy Suites Hilton Houston	8122	4371	53.8%	1382	0	1382	31.6%	2170	63.7%	31	
3654 - Hampton Inn and Homewood Suites Houston	9300	5087	54.7%	1802	0	1802	35.4%	4526	39.8%	31	
3658 - Marriott Marquis Houston	31000	1030	3.3%	3086	0	3086	299.6%	3100	99.5%	31	
3718 - Hyatt Regency Dallas	34720	22637	65.2%	3955	0	3955	17.5%	13950	28.4%	31	
3823 - Marriott Courtyard Sa	6820	5385	79.0%	2266	0	2266	42.1%	3875	58.5%	31	
3831:3832: - Grand Hyatt San Antonio	31000	21195	68.4%	1812	2505	4317	20.4%	10323	41.8%	31	
3833 - Marriott Fairfield Inn & Suites	3069	2129	69.4%	758	0	758	35.6%	930	81.5%	31	
3834 - Marriott Spring Hill Suites	3658	2224	60.8%	1091	0	1091	49.1%	1705	64.0%	31	
3850 - Hotel Emma	4526	2546	56.3%	1039	0	1039	40.8%	1550	67.0%	31	
4157 - Omni San Francisco	11222	9609	85.6%	1198	0	1198	12.5%	930	128.8%	31	
4184:4267: - Westin Hotel Sfo	12307	10450	84.9%	432	2466	2898	27.7%	8029	36.1%	31	
4186 - Aloft Sfo	7812	5728	73.3%	0	1659	1659	29.0%	14818	11.2%	31	
4252 - Hotel Adagio	5301	3870	73.0%	491	0	491	12.7%	1209	40.6%	31	
4272 - San Francisco Courtyard	5208	3911	75.1%	562	0	562	14.4%	775	72.5%	31	
4277:4278: - San Jose Double Tree	15655	11488	73.4%	764	6334	7098	61.8%	21855	32.5%	31	
4405 - Roosevelt Hotel New Orleans	15624	11197	71.7%	1822	0	1822	16.3%	5332	34.2%	31	
4409 - Hilton Garden Inn New Orleans Conv Ctr	8866	3528	39.8%	1070	0	1070	30.3%	3100	34.5%	31	
4410 - Old No 77 Hotel	5177	3503	67.7%	496	0	496	14.2%	6200	8.0%	31	
4411 - Hotel Indigo New Orleans	4092	2116	51.7%	798	0	798	37.7%	1643	48.6%	31	
4600 - Sofitel Washington Dc	7347	5416	73.7%	491	0	491	9.1%	434	113.1%	31	
4601 - Renaissance	9300	6798	73.1%	430	1254	1684	24.8%	16647	10.1%	31	
4602 - Residence Inn Arlington	10075	6774	67.2%	57	2119	2176	32.1%	16647	13.1%	31	
4606 - Marriott Bethesda - Self	12270	6272	51.1%	0	10	10	0.2%	15000	0.1%	30	
4608 - Westin City Center - Dc	12710	7691	60.5%	1144	851	1995	25.9%	4650	42.9%	31	
4611 - Omni Shoreham Dc	25854	11026	42.6%	1407	0	1407	12.8%	9300	15.1%	31	
4612 - Hyatt Place Dc - K Street	5084	1065	20.9%	560	0	560	52.6%	930	60.2%	31	
4613 - Hyatt Place Arlington	5208	3107	59.7%	775	0	775	24.9%	2604	29.8%	31	
Total:	**1107190**	**731422**	**66.1%**	**107006**	**80800**	**187806**	**25.7%**	**739997**	**25.4%**		

Daily Drive in & Occupancy
For 02/01/2017
All Locations
Leased/Managed
Report Date 2/8/2018 11:15:42 AM

Date	Rooms Available #	Occupied #	Occupancy %	3am Cars Valet #	Self #	Total #	Drive in %	Stalls Available #	Occupancy %	# Days Entered	west coast
											26.8%
0160:0161: - Marriott La Jolla	10416	9294	89.2%	1148	3133	4281	46.1%	12880	33.2%	28	
0176 - Westin Gaslamp Quarter	12600	10968	87.0%	2050	0	2050	18.7%	5040	40.7%	28	
0270:0461: - Wyndham San Diego Bayside	16800	14219	84.6%	639	3615	4254	29.9%	8120	52.4%	28	
0271 - US Grant Hotel Valet	7560	6535	86.4%	1789	0	1789	27.4%	6160	29.0%	28	
0316 - Marriott Vacation Club Pulse	7392	4141	56.0%	1134	634	1768	42.7%	1260	140.3%	28	
0328 - Westin San Diego	12208	10662	87.3%	1339	0	1339	12.6%	1820	73.6%	28	
0370:0371: - Marriott Marquis & Marina San Diego	38080	30823	80.9%	2857	4043	6900	22.4%	27048	25.5%	28	
0375 - Town & Country Convention	26544	13416	50.5%	0	7095	7095	52.9%	38500	18.4%	28	
0575:0576: - Marriott Mission Valley	9800	7846	80.1%	328	3131	3459	44.1%	10948	31.6%	28	
0674:0675: - Westin Seattle Hotel	24948	20968	84.0%	1723	1184	2907	13.9%	6468	44.9%	28	
1050 - Omni Hotel San Diego	14308	12678	88.6%	1971	0	1971	15.5%	6160	32.0%	28	
1076 - Marriott Gaslamp Quarter SD	8568	7748	90.4%	1892	0	1892	24.4%	5768	32.8%	28	
1159 - Hard Rock Hotel	11760	9854	83.8%	1388	0	1388	14.1%	5320	26.1%	28	
1167:1303: - Hyatt Regency La Jolla Valet	11676	9260	79.3%	1356	2463	3819	41.2%	8400	45.5%	28	
1180 - Hilton SD Bayfront Hotel	33320	30078	90.3%	1268	4710	5978	19.9%	25032	23.9%	28	
1189:1190: - Hilton La Jolla Torrey Pines	11032	8281	75.1%	813	2619	3432	41.4%	15680	21.9%	28	
1196 - The Keating Hotel	980	0	0.0%	251	0	251	#DIV/0!	700	35.9%	28	
1207 - Indigo Hotel	5880	5523	93.9%	1297	0	1297	23.5%	1820	71.3%	28	
1241:1242: - Grand Hyatt San Diego	45584	39197	86.0%	2435	3955	6390	16.3%	32536	19.6%	28	
1244:1245: - Hyatt Regency Mission Bay	12012	9271	77.2%	1373	2661	4034	43.5%	2800	144.1%	28	
1324 - Lane Field North Garage	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
1325 - Lane Field North Hotel	11200	9660	86.3%	593	3653	4246	44.0%	11592	36.6%	28	
1535 - San Diego Bayside Campus	10192	8633	84.7%	3375	648	4023	46.6%	4536	88.7%	28	
1539 - Pendry San Diego	8876	4242	47.8%	1393	0	1393	32.8%	3024	46.1%	28	
1543 - Hotel Republic	7224	6033	83.5%	1300	0	1300	21.5%	1680	77.4%	28	
1548 - Andaz San Diego	4452	1962	44.1%	479	0	479	24.4%	2800	17.1%	28	
2073 - W La West Beverly Hills	8372	7493	89.5%	2725	0	2725	36.4%	4368	62.4%	28	
2085 - Hyatt Regency Huntington Beach Valet	14476	12127	83.8%	5326	0	5326	43.9%	27720	19.2%	28	
2225:2226: - Crowne Plaza Redondo Beach Hotel	9688	8389	86.6%	601	2726	3327	39.7%	7196	46.2%	28	
2229:2230: - Doubletree La Downtown	12208	10746	88.0%	1580	1658	3238	30.1%	11424	28.3%	28	
2240 - Hampton Inn and Suites La/Santa Monica	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
2241 - Courtyard Santa Monica	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
2514 - Hyatt Regency Newport Beach Valet	11284	9130	80.9%	1964	0	1964	21.5%	5320	36.9%	28	
2515 - Hyatt Regency Newport Beach Self	11284	189	1.7%	0	2791	2791	1476.7%	9800	28.5%	28	
2539 - Waterfront Beach Resort Valet	8120	5370	66.1%	3452	0	3452	64.3%	9800	35.2%	28	
2613 - Pasea Hotel and Spa	7000	5034	71.9%	2737	0	2737	54.4%	10052	27.2%	28	
3000 - Hilton Oakland	10136	7987	78.8%	0	3133	3133	39.2%	14000	22.4%	28	
3016 - Oakland Marriott	13692	11718	85.6%	1558	0	1558	13.3%	1120	139.1%	28	
3109 - 900 13th Street - Sacramento	14112	11521	81.6%	0	2280	2280	19.8%	24192	9.4%	28	
3110 - Sheraton Grand Sacramento	14084	11635	82.6%	2222	0	2222	19.1%	2520	88.2%	28	
3151 - Westin Portland	5740	4749	82.7%	1596	0	1596	33.6%	2688	59.4%	28	
3155:3157: - Hotel Deluxe Portland	3584	3078	85.9%	822	261	1083	35.2%	1400	77.4%	28	
3156 - Sentinel	2800	2475	88.4%	742	17	759	30.7%	1680	45.2%	28	
3170 - Embassy Suites Hilton Portland	7728	7048	91.2%	1662	0	1662	23.6%	28000	5.9%	28	
3171 - Embassy Suites Hilton Portland Garage	7728	7048	91.2%	1041	0	1041	14.8%	8204	12.7%	28	
3216 - Fairmont Olympic Hotel Seattle	12600	10789	85.6%	1564	83	1647	15.3%	3080	53.5%	28	
3219 - The Arctic Club Seattle	3360	2545	75.7%	457	0	457	18.0%	1120	40.8%	28	
3220 - Hotel Lucia	3556	3072	86.4%	490	0	490	16.0%	980	50.0%	28	
3252 - Hyatt Regency Bellevue	22036	16490	74.8%	981	1123	2104	12.8%	11032	19.1%	28	
3257 - Westin Bellevue	9492	7453	78.5%	932	454	1386	18.6%	4732	29.3%	28	
3272 - Seattle Marriott Bellevue	10752	7797	72.5%	2178	0	2178	27.9%	5040	43.2%	28	
3273 - Sheraton Seattle Hotel - Valet	35224	24864	70.6%	1714	0	1714	6.9%	11200	15.3%	28	
3284 - Hilton Garden Inn Seattle	6216	5605	90.2%	804	0	804	14.3%	1400	57.4%	28	
3285 - W Bellevue	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
3452 - Hyatt Regency Phoenix	19404	15822	81.5%	1545	791	2336	14.8%	4200	55.6%	28	
3465:3466: - The Phoenician	18200	15417	84.7%	1627	1610	3237	21.0%	16800	19.3%	28	
3585:3587: - Omni Dallas Hotel	28028	23625	84.3%	4701	2616	7317	31.0%	19656	37.2%	28	
3595 - The Stoneleigh - Le Meridien Dallas	4760	4094	86.0%	1612	0	1612	39.4%	4200	38.4%	28	
3604 - St Regis Hotel	6496	5212	80.2%	1680	0	1680	32.2%	4900	34.3%	28	
3606:3619: - Woodlands Marriott	9604	7703	80.2%	1284	1538	2822	36.6%	2800	100.8%	28	
3621:3622: - Hilton Houston Post Oak	12544	9540	76.1%	1178	2541	3719	39.0%	9128	40.7%	28	
3634 - Embassy Suites Hilton Houston	7336	5194	70.8%	1258	0	1258	24.2%	1960	64.2%	28	
3654 - Hampton Inn and Homewood Suites Houston	8400	5667	67.5%	1400	0	1400	24.7%	4088	34.2%	28	
3658 - Marriott Marquis Houston	28000	0	0.0%	0	0	0	#DIV/0!	2800	0.0%	28	
3718 - Hyatt Regency Dallas	31360	24912	79.4%	2988	0	2988	12.0%	12600	23.7%	28	
3823 - Marriott Courtyard Sa	6160	5052	82.0%	2256	0	2256	44.7%	3500	64.5%	28	
3831:3832: - Grand Hyatt San Antonio	28000	20954	74.8%	2491	3906	6397	30.5%	9324	68.6%	28	
3833 - Marriott Fairfield Inn & Suites	2772	2218	80.0%	1223	0	1223	55.1%	840	145.6%	28	
3834 - Marriott Spring Hill Suites	3304	2422	73.3%	1417	0	1417	58.5%	1540	92.0%	28	
3850 - Hotel Emma	4088	3151	77.1%	1208	0	1208	38.3%	1400	86.3%	28	
4157 - Omni San Francisco	10136	9054	89.3%	1085	0	1085	12.0%	840	129.2%	28	
4184:4267: - Westin Hotel Sfo	11116	10646	95.8%	476	2674	3150	29.6%	7252	43.4%	28	
4186 - Aloft Sfo	7056	5652	80.1%	0	1640	1640	29.0%	13384	12.3%	28	
4252 - Hotel Adagio	4788	4284	89.5%	495	0	495	11.6%	1092	45.3%	28	
4272 - San Francisco Courtyard	4704	4043	85.9%	507	0	507	12.5%	700	72.4%	28	
4277:4278: - San Jose Double Tree	14140	11858	83.9%	903	7115	8018	67.6%	19740	40.6%	28	
4405 - Roosevelt Hotel New Orleans	14112	10172	72.1%	2016	0	2016	19.8%	4816	41.9%	28	
4409 - Hilton Garden Inn New Orleans Conv Ctr	8008	5313	66.3%	1639	0	1639	30.8%	2800	58.5%	28	
4410 - Old No 77 Hotel	4676	4187	89.5%	636	0	636	15.2%	5600	11.4%	28	
4411 - Hotel Indigo New Orleans	3696	2567	69.5%	1083	0	1083	42.2%	1484	73.0%	28	
4562 - Hyatt Regency Villa Christina	4956	3675	74.2%	321	0	321	8.7%	1400	22.9%	28	
4600 - Sofitel Washington Dc	6636	5552	83.7%	554	0	554	10.0%	392	141.3%	28	
4601 - Renaissance	8400	6576	78.3%	522	1351	1873	28.5%	15036	12.5%	28	
4602 - Residence Inn Arlington	9100	6620	72.7%	80	2064	2144	32.4%	15036	14.3%	28	
4608 - Westin City Center - Dc	11480	10230	89.1%	1390	1421	2811	27.5%	4200	66.9%	28	
4611 - Omni Shoreham Dc	23352	16296	69.8%	2327	0	2327	14.3%	8400	27.7%	28	
4612 - Hyatt Place Dc - K Street	4592	2251	49.0%	500	0	500	22.2%	840	59.5%	28	
4613 - Hyatt Place Arlington	4704	2426	51.6%	676	0	676	27.9%	2352	28.7%	28	
Total:	1002792	768029	76.6%	113376	88378	201754	26.3%	659260	30.6%		

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Daily Drive in & Occupancy
For 03/01/2017
All Locations
Leased/Managed
Report Date 2/8/2018 11:16:43 AM

Date	Rooms Available #	Occupied #	Occupancy %	3am Cars Valet #	Self #	Total #	Drive in %	Stalls Available #	Occupancy %	# Days Entered	west coast
0160:0161: - Marriott La Jolla	11532	10625	92.1%	962	3351	4313	40.6%	14260	30.2%	31	29.32%
0176 - Westin Gaslamp Quarter	13950	12129	86.9%	2846	0	2846	23.5%	5580	51.0%	31	
0270:0461: - Wyndham San Diego Bayside	18600	15518	83.4%	735	4294	5029	32.4%	8990	55.9%	31	
0271 - US Grant Hotel Valet	8370	7252	86.6%	2141	0	2141	29.5%	6820	31.4%	31	
0316 - Marriott Vacation Club Pulse	8184	4692	57.3%	1370	790	2160	46.0%	1395	154.8%	31	
0328 - Westin San Diego	13516	11946	88.4%	1807	0	1807	15.1%	2015	89.7%	31	
0370:0371: - Marriott Marquis & Marina San Diego	42160	37906	89.9%	4839	5780	10619	28.0%	29946	35.5%	31	
0375 - Town & Country Convention	29388	16106	54.8%	0	6469	6469	40.2%	42625	15.2%	31	
0575:0576: - Marriott Mission Valley	10850	10047	92.6%	360	4530	4890	48.7%	12121	40.3%	31	
0674:0675: - Westin Seattle Hotel	27621	24562	88.9%	1672	1419	3091	12.6%	7161	43.2%	31	
0678 - Sheraton Seattle Hotel - Valet	38998	16536	42.4%	1290	0	1290	7.8%	12400	10.4%	31	
1050 - Omni Hotel San Diego	15841	14328	90.4%	2594	0	2594	18.1%	6820	38.0%	31	
1076 - Marriott Gaslamp Quarter SD	9486	8486	89.5%	2061	0	2061	24.3%	6386	32.3%	31	
1159 - Hard Rock Hotel	13020	10070	77.3%	1912	0	1912	19.0%	5890	32.5%	31	
1167:1303: - Hyatt Regency La Jolla Valet	12927	11079	85.7%	1664	3205	4869	43.9%	9300	52.4%	31	
1180 - Hilton SD Bayfront Hotel	36890	35055	95.0%	1649	6497	8146	23.2%	27714	29.4%	31	
1189:1190: - Hilton La Jolla Torrey Pines	12214	10583	86.6%	828	3444	4272	40.4%	17360	24.6%	31	
1196 - The Keating Hotel	1085	0	0.0%	229	0	229	#DIV/0!	775	29.5%	31	
1207 - Indigo Hotel	6510	6011	92.3%	1594	0	1594	26.5%	2015	79.1%	31	
1241:1242: - Grand Hyatt San Diego	50468	46494	92.1%	3136	6310	9446	20.3%	36022	26.2%	31	
1244:1245: - Hyatt Regency Mission Bay	13299	10162	76.4%	1332	2697	4029	39.6%	3100	130.0%	31	
1324 - Lane Field North Garage	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	31	
1325 - Lane Field North Hotel	12400	10678	86.1%	831	4452	5283	49.5%	12834	41.2%	31	
1535 - San Diego Bayside Campus	11284	10170	90.1%	4141	0	4141	40.7%	5022	82.5%	31	
1539 - Pendry San Diego	9827	4104	41.8%	1692	0	1692	41.2%	3348	50.5%	31	
1543 - Hotel Republic	7998	6885	86.1%	1744	0	1744	25.3%	1860	93.8%	31	
1548 - Andaz San Diego	4929	4348	88.2%	903	0	903	20.8%	3100	29.1%	31	
2073 - W La West Beverly Hills	9269	8301	89.6%	2938	0	2938	35.4%	4836	60.8%	31	
2085 - Hyatt Regency Huntington Beach Valet	16027	14315	89.3%	7489	0	7489	52.3%	30690	24.4%	31	
2225:2226: - Crowne Plaza Redondo Beach Hotel	10726	9331	87.0%	860	3450	4310	46.2%	7967	54.1%	31	
2229:2230: - Doubletree La Downtown	6976	4564	65.4%	619	603	1222	26.8%	6528	18.7%	16	
2240 - Hampton Inn and Suites La/Santa Monica	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
2241 - Courtyard Santa Monica	4216	1397	33.1%	664	(15)	649	46.5%	2573	25.2%	31	
2514 - Hyatt Regency Newport Beach Valet	12493	11415	91.4%	2175	0	2175	19.1%	5890	36.9%	31	
2515 - Hyatt Regency Newport Beach Self	12493	0	0.0%	0	4060	4060	#DIV/0!	10850	37.4%	31	
2539 - Waterfront Beach Resort Valet	8990	6743	75.0%	4877	0	4877	72.3%	10850	44.9%	31	
2613 - Pasea Hotel and Spa	7750	6792	87.6%	3748	0	3748	55.2%	11129	33.7%	31	
3000 - Hilton Oakland	11222	9192	81.9%	0	3975	3975	43.2%	15500	25.6%	31	
3016 - Oakland Marriott	15159	13096	86.4%	2105	0	2105	16.1%	1240	169.8%	31	
3109 - 900 13th Street - Sacramento	15624	14327	91.7%	0	2707	2707	18.9%	26784	10.1%	31	
3110 - Sheraton Grand Sacramento	15593	14270	91.5%	2049	0	2049	14.4%	2790	73.4%	31	
3151 - Westin Portland	6355	5596	88.1%	1688	0	1688	30.2%	2976	56.7%	31	
3155:3157: - Hotel Deluxe Portland	3968	3676	92.6%	905	276	1181	32.1%	1550	76.2%	31	
3156 - Sentinel	3100	2837	91.5%	666	0	666	23.5%	1860	35.8%	31	
3170 - Embassy Suites Hilton Portland	8556	7791	91.1%	2071	0	2071	26.6%	31000	6.7%	31	
3171 - Embassy Suites Hilton Portland Garage	8556	7789	91.0%	0	1213	1213	15.6%	9083	13.4%	31	
3216 - Fairmont Olympic Hotel Seattle	13950	11230	80.5%	1920	164	2084	18.6%	3410	61.1%	31	
3219 - The Arctic Club Seattle	3720	3302	88.8%	580	0	580	17.6%	1240	46.8%	31	
3220 - Hotel Lucia	3937	3589	91.2%	567	0	567	15.8%	1085	52.3%	31	
3252 - Hyatt Regency Bellevue	24397	16308	66.8%	1093	1457	2550	15.6%	12214	20.9%	31	
3257 - Westin Bellevue	10509	7672	73.0%	1212	549	1761	23.0%	5239	33.6%	31	
3272 - Seattle Marriott Bellevue	5376	3376	62.8%	1122	0	1122	33.2%	2520	44.5%	14	
3273 - Sheraton Seattle Hotel - Valet	38998	12342	31.6%	1531	0	1531	12.4%	12400	12.3%	31	
3284 - Hilton Garden Inn Seattle	6882	6331	92.0%	1080	0	1080	17.1%	1550	69.7%	31	
3285 - W Bellevue	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
3290 - W Seattle	13144	10741	81.7%	1710	0	1710	15.9%	2604	65.7%	31	
3452 - Hyatt Regency Phoenix	21483	18205	84.7%	1731	1371	3102	17.0%	4650	66.7%	31	
3465:3466: - The Phoenician	20150	17794	88.3%	1709	3145	4854	27.3%	18600	26.1%	31	
3585:3587: - Omni Dallas Hotel	31031	26920	86.8%	5804	3343	9147	34.0%	21762	42.0%	31	
3595 - The Stoneleigh - Le Meridien Dallas	5425	4520	83.3%	1600	0	1600	35.4%	4650	34.4%	31	
3604 - St Regis Hotel	7192	4815	66.9%	1686	0	1686	35.0%	5425	31.1%	31	
3606:3619: - Woodlands Marriott	10633	8370	78.7%	1090	1762	2852	34.1%	3100	92.0%	31	
3621:3622: - Hilton Houston Post Oak	13888	9990	71.9%	1359	3140	4499	45.0%	10106	44.5%	31	
3634 - Embassy Suites Hilton Houston	8122	6066	74.7%	2034	0	2034	33.5%	2170	93.7%	31	
3654 - Hampton Inn and Homewood Suites Houston	9300	6802	73.1%	2843	0	2843	41.8%	4526	62.8%	31	
3658 - Marriott Marquis Houston	31000	1118	3.6%	687	76	763	68.2%	3100	24.6%	31	
3718 - Hyatt Regency Dallas	34720	25764	74.2%	6313	0	6313	24.5%	13950	45.3%	31	
3823 - Marriott Courtyard Sa	6820	6261	91.8%	2935	0	2935	46.9%	3875	75.7%	31	
3831:3832: - Grand Hyatt San Antonio	31000	26718	86.2%	3732	3499	7231	27.1%	10323	70.0%	31	
3833 - Marriott Fairfield Inn & Suites	3069	2793	91.0%	1403	0	1403	50.2%	930	150.9%	31	
3834 - Marriott Spring Hill Suites	3658	3387	92.6%	1442	0	1442	42.6%	1705	84.6%	31	
3850 - Hotel Emma	4526	3324	73.4%	1219	0	1219	36.7%	1550	78.6%	31	
4157 - Omni San Francisco	11222	10090	89.9%	1351	0	1351	13.4%	930	145.3%	31	
4184:4267: - Westin Hotel Sfo	12307	11588	94.2%	514	3197	3711	32.0%	8029	46.2%	31	
4186 - Aloft Sfo	7812	6457	82.7%	0	1815	1815	28.1%	14818	12.2%	31	
4252 - Hotel Adagio	5301	5063	95.5%	715	0	715	14.1%	1209	59.1%	31	
4272 - San Francisco Courtyard	5208	4204	80.7%	644	0	644	15.3%	775	83.1%	31	
4277:4278: - San Jose Double Tree	15655	13015	83.1%	689	6710	7399	56.8%	21855	33.9%	31	
4405 - Roosevelt Hotel New Orleans	15624	13175	84.3%	2295	0	2295	17.4%	5332	43.0%	31	
4409 - Hilton Garden Inn New Orleans Conv Ctr	8866	6285	70.9%	1699	0	1699	27.0%	3100	54.8%	31	
4410 - Old No 77 Hotel	5177	4774	92.2%	844	0	844	17.7%	6200	13.6%	31	
4411 - Hotel Indigo New Orleans	4092	1864	45.6%	12	0	12	0.6%	1643	0.7%	31	
4562 - Hyatt Regency Villa Christina	5487	4362	79.5%	483	0	483	11.1%	1550	31.2%	31	
4600 - Sofitel Washington Dc	7347	6448	87.8%	574	0	574	8.9%	434	132.3%	31	
4601 - Renaissance	9300	8257	88.8%	479	1311	1790	21.7%	16647	10.8%	31	
4602 - Residence Inn Arlington	10075	8774	87.1%	77	2106	2183	24.9%	16647	13.1%	31	
4608 - Westin City Center - Dc	12710	11671	91.8%	1307	1017	2324	19.9%	4650	50.0%	31	
4611 - Omni Shoreham Dc	25854	21697	83.9%	2883	0	2883	13.3%	9300	31.0%	31	
4612 - Hyatt Place Dc - K Street	5084	0	0.0%	539	0	539	#DIV/0!	930	58.0%	31	
4613 - Hyatt Place Arlington	5208	4232	81.3%	1023	0	1023	24.2%	2604	39.3%	31	
Total:	1153679	886898	76.9%	141716	104169	245885	27.7%	738292	33.3%		

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Daily Drive in & Occupancy
For 04/01/2017
All Locations
Leased/Managed
Report Date 2/8/2018 11:19:32 AM

Date	Rooms Available #	Occupied #	Occupancy %	3am Cars Valet #	Self #	Total #	Stalls Drive in %	Available #	Occupancy %	# Days Entered	west coast
0160:0161: - Marriott La Jolla	11160	10660	95.5%	983	3816	4799	45.0%	13800	34.8%	30	29.07%
0176 - Westin Gaslamp Quarter	13500	10828	80.2%	2799	0	2799	25.8%	5400	51.8%	30	
0270:0461: - Wyndham San Diego Bayside	18000	14612	81.2%	662	4427	5089	34.8%	8700	58.5%	30	
0271 - US Grant Hotel Valet	8100	6855	84.6%	2221	0	2221	32.4%	6600	33.7%	30	
0316 - Marriott Vacation Club Pulse	7920	4673	59.0%	1392	810	2202	47.1%	1350	163.1%	30	
0328 - Westin San Diego	13080	10816	82.7%	1460	0	1460	13.5%	1950	74.9%	30	
0370:0371: - Marriott Marquis & Marina San Diego	40800	36016	88.3%	3963	5267	9230	25.6%	28980	31.8%	30	
0375 - Town & Country Convention	28440	14122	49.7%	0	6689	6689	47.4%	41250	16.2%	30	
0575:0576: - Marriott Mission Valley	10500	8668	82.6%	297	4272	4569	52.7%	11730	39.0%	30	
0674:0675: - Westin Seattle Hotel	26730	23460	87.8%	1664	1457	3121	13.3%	6930	45.0%	30	
0678 - Sheraton Seattle Hotel - Valet	37740	26051	69.0%	2823	0	2823	10.8%	12000	23.5%	30	
1050 - Omni Hotel San Diego	15330	12931	84.4%	2301	0	2301	17.8%	6600	34.9%	30	
1076 - Marriott Gaslamp Quarter SD	9180	8142	88.7%	2237	0	2237	27.5%	6180	36.2%	30	
1159 - Hard Rock Hotel	12600	10676	84.7%	2145	0	2145	20.1%	5700	37.6%	30	
1167:1303: - Hyatt Regency La Jolla Valet	12510	10250	81.9%	1570	3296	4866	47.5%	9000	54.1%	30	
1180 - Hilton SD Bayfront Hotel	35700	34648	97.1%	1854	7940	9794	28.3%	26820	36.5%	30	
1189:1190: - Hilton La Jolla Torrey Pines	11820	9627	81.4%	863	4376	5239	54.4%	16800	31.2%	30	
1196 - The Keating Hotel	1050	0	0.0%	253	0	253	#DIV/0!	750	33.7%	30	
1207 - Indigo Hotel	6300	5712	90.7%	1677	0	1677	29.4%	1950	86.0%	30	
1241:1242: - Grand Hyatt San Diego	48840	40912	83.8%	3270	7298	10568	25.8%	34860	30.3%	30	
1244:1245: - Hyatt Regency Mission Bay	12870	10668	82.9%	1730	3302	5032	47.2%	3000	167.7%	30	
1324 - Lane Field North Garage	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	30	
1325 - Lane Field North Hotel	12000	10539	87.8%	831	4374	5205	49.4%	12420	41.9%	30	
1535 - San Diego Bayside Campus	10920	9486	86.9%	4497	0	4497	47.4%	4860	92.5%	30	
1539 - Pendry San Diego	9510	4396	46.2%	1558	0	1558	35.4%	3240	48.1%	30	
1543 - Hotel Republic	7740	5327	68.8%	1275	0	1275	23.9%	1800	70.8%	30	
1548 - Andaz San Diego	4770	4262	89.4%	1005	0	1005	23.6%	3000	33.5%	30	
2073 - W La West Beverly Hills	8970	8205	91.5%	3011	0	3011	36.7%	4680	64.3%	30	
2085 - Hyatt Regency Huntington Beach Valet	15510	14091	90.9%	7191	0	7191	51.0%	29700	24.2%	30	
2225:2226: - Crowne Plaza Redondo Beach Hotel	10380	9115	87.8%	835	3097	3932	43.1%	7710	51.0%	30	
2240 - Hampton Inn and Suites La/Santa Monica	4260	1560	36.6%	668	0	668	42.8%	3300	20.2%	30	
2241 - Courtyard Santa Monica	4080	2510	61.5%	1212	0	1212	48.3%	2490	48.7%	30	
2514 - Hyatt Regency Newport Beach Valet	12090	10736	88.8%	2123	0	2123	19.8%	5700	37.2%	30	
2515 - Hyatt Regency Newport Beach Self	12090	0	0.0%	0	3632	3632	#DIV/0!	10500	34.6%	30	
2539 - Waterfront Beach Resort Valet	8700	6743	77.5%	5136	0	5136	76.2%	10500	48.9%	30	
2613 - Pasea Hotel and Spa	7500	5465	72.9%	4036	0	4036	73.9%	10770	37.5%	30	
3000 - Hilton Oakland	10860	8897	81.9%	0	4098	4098	46.1%	15000	27.3%	30	
3016 - Oakland Marriott	14670	12709	86.6%	1686	0	1686	13.3%	1200	140.5%	30	
3109 - 900 13th Street - Sacramento	15120	12488	82.6%	0	2973	2973	23.8%	25920	11.5%	30	
3110 - Sheraton Grand Sacramento	15090	12598	83.5%	2398	0	2398	19.0%	2700	88.8%	30	
3151 - Westin Portland	6150	5010	81.5%	1670	0	1670	33.3%	2880	58.0%	30	
3155:3157: - Hotel Deluxe Portland	3840	3472	90.4%	925	276	1201	34.6%	1500	80.1%	30	
3156 - Sentinel	3000	2661	88.7%	757	0	757	28.4%	1800	42.1%	30	
3170 - Embassy Suites Hilton Portland	8280	7709	93.1%	1950	0	1950	25.3%	30000	6.5%	30	
3171 - Embassy Suites Hilton Portland Garage	8280	7696	92.9%	42	1017	1059	13.8%	8790	12.0%	30	
3216 - Fairmont Olympic Hotel Seattle	13500	11274	83.5%	1939	140	2079	18.4%	3300	63.0%	30	
3219 - The Arctic Club Seattle	3600	2982	82.8%	569	0	569	19.1%	1200	47.4%	30	
3220 - Hotel Lucia	3810	3395	89.1%	495	0	495	14.6%	1050	47.1%	30	
3252 - Hyatt Regency Bellevue	23610	16300	69.0%	1290	1465	2755	16.9%	11820	23.3%	30	
3257 - Westin Bellevue	10170	6966	68.5%	1106	445	1551	22.3%	5070	30.6%	30	
3273 - Sheraton Seattle Hotel - Valet	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	6	
3284 - Hilton Garden Inn Seattle	6660	5927	89.0%	1206	0	1206	20.3%	1500	80.4%	30	
3285 - W Bellevue	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
3290 - W Seattle	12720	10557	83.0%	1338	0	1338	12.7%	2520	53.1%	30	
3452 - Hyatt Regency Phoenix	20790	15971	76.8%	1424	894	2318	14.5%	4500	51.5%	30	
3465:3466: - The Phoenician	19500	15328	78.6%	1419	2490	3909	25.5%	18000	21.7%	30	
3585:3587: - Omni Dallas Hotel	30030	24962	83.1%	5714	3420	9134	36.6%	21060	43.4%	30	
3595 - The Stoneleigh - Le Meridien Dallas	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	13	
3598 - The Stoneleigh	5250	4299	81.9%	1877	0	1877	43.7%	4500	41.7%	30	
3604 - St Regis Hotel	6960	4641	66.7%	1863	60	1923	41.4%	5250	36.6%	30	
3606:3619: - Woodlands Marriott	10290	8094	78.7%	1328	2304	3632	44.9%	3000	121.1%	30	
3621:3622: - Hilton Houston Post Oak	13440	9438	70.2%	1218	2825	4043	42.8%	9780	41.3%	30	
3634 - Embassy Suites Hilton Houston	7860	5254	66.8%	1900	0	1900	36.2%	2100	90.5%	30	
3654 - Hampton Inn and Homewood Suites Houston	9000	6415	71.3%	2507	0	2507	39.1%	4380	57.2%	30	
3658 - Marriott Marquis Houston	30000	12928	43.1%	4278	0	4278	33.1%	3000	142.6%	30	
3718 - Hyatt Regency Dallas	33600	24551	73.1%	6333	0	6333	25.8%	13500	46.9%	30	
3823 - Marriott Courtyard Sa	6600	5590	84.7%	2370	0	2370	42.4%	3750	63.2%	30	
3831:3832: - Grand Hyatt San Antonio	30000	23446	78.2%	2455	3376	5831	24.9%	9990	58.4%	30	
3833 - Marriott Fairfield Inn & Suites	2970	2640	88.9%	1132	0	1132	42.9%	900	125.8%	30	
3834 - Marriott Spring Hill Suites	3540	2924	82.6%	1268	0	1268	43.4%	1650	76.8%	30	
3850 - Hotel Emma	4380	2843	64.9%	1263	0	1263	44.4%	1500	84.2%	30	
4157 - Omni San Francisco	10860	9925	91.4%	1469	0	1469	14.8%	900	163.2%	30	
4184:4267: - Westin Hotel Sfo	11910	11078	93.0%	545	2871	3416	30.8%	7770	44.0%	30	
4186 - Aloft Sfo	7560	6651	88.0%	0	2543	2543	38.2%	14340	17.7%	30	
4252 - Hotel Adagio	5130	4916	95.8%	769	11	780	15.9%	1170	66.7%	30	
4272 - San Francisco Courtyard	5040	4322	85.8%	721	0	721	16.7%	750	96.1%	30	
4277:4278: - San Jose Double Tree	15150	13036	86.0%	729	6607	7336	53.3%	21150	34.7%	30	
4405 - Roosevelt Hotel New Orleans	15120	11304	74.8%	2178	0	2178	19.3%	5160	42.2%	30	
4409 - Hilton Garden Inn New Orleans Conv Ctr	8580	5058	59.0%	1412	0	1412	27.9%	3000	47.1%	30	
4410 - Old No 77 Hotel	5010	4459	89.0%	691	0	691	15.5%	6000	11.5%	30	
4411 - Hotel Indigo New Orleans	3960	2879	72.7%	1031	48	1079	37.5%	1590	67.9%	30	
4562 - Hyatt Regency Villa Christina	5310	4070	76.6%	402	0	402	9.9%	1500	26.8%	30	
4600 - Sofitel Washington Dc	7110	6670	93.8%	728	0	728	10.9%	420	173.3%	30	
4601 - Renaissance	9000	8158	90.6%	747	1409	2156	26.4%	16110	13.4%	30	
4602 - Residence Inn Arlington	9750	8873	91.0%	139	2851	2990	33.7%	16110	18.6%	30	
4608 - Westin City Center - Dc	12300	10973	89.2%	1667	0	1667	15.2%	4500	37.0%	30	
4611 - Omni Shoreham Dc	25020	23140	92.5%	4838	0	4838	20.9%	9000	53.8%	30	
4613 - Hyatt Place Arlington	5040	4160	82.5%	1168	0	1168	28.1%	2520	46.3%	30	
Total:	1066110	842399	79.0%	144496	106176	250672	29.8%	696120	36.0%		

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Date	Rooms Available #	Occupied #	Occupancy %	3am Cars Valet #	Self #	Total #	Drive in %	Stalls Available #	Occupancy %	# Days Entered	west coast
0160:0161: - Marriott La Jolla	11532	9329	80.9%	963	3694	4657	49.9%	14260	32.7%	31	30.94%
0176 - Westin Gaslamp Quarter	13950	11787	84.5%	3090	0	3090	26.2%	5580	55.4%	31	
0270:0461: - Wyndham San Diego Bayside	18600	13539	72.8%	624	4208	4832	35.7%	8990	53.7%	31	
0271 - US Grant Hotel Valet	8370	6924	82.7%	2020	0	2020	29.2%	6820	29.6%	31	
0316 - Marriott Vacation Club Pulse	8184	4679	57.2%	1306	783	2089	44.6%	1395	149.7%	31	
0328 - Westin San Diego	13516	11370	84.1%	1419	0	1419	12.5%	2015	70.4%	31	
0370:0371: - Marriott Marquis & Marina San Diego	42160	34743	82.4%	3517	5547	9064	26.1%	29946	30.3%	31	
0375 - Town & Country Convention	29388	7470	25.4%	0	6100	6100	81.7%	42625	14.3%	31	
0575:0576: - Marriott Mission Valley	10850	7882	72.6%	382	3984	4366	55.4%	12121	36.0%	31	
0674:0675: - Westin Seattle Hotel	27621	25013	90.6%	1680	1395	3075	12.3%	7161	42.9%	31	
0678 - Sheraton Seattle Hotel - Valet	38998	31260	80.2%	2185	0	2185	7.0%	12400	17.6%	31	
1050 - Omni Hotel San Diego	15841	14202	89.7%	2089	0	2089	14.7%	6820	30.6%	31	
1076 - Marriott Gaslamp Quarter SD	9486	8364	88.2%	2183	0	2183	26.1%	6386	34.2%	31	
1159 - Hard Rock Hotel	13020	10304	79.1%	1939	0	1939	18.8%	5890	32.9%	31	
1167:1303: - Hyatt Regency La Jolla Valet	12927	10952	84.7%	1701	4166	5867	53.6%	9300	63.1%	31	
1180 - Hilton SD Bayfront Hotel	36890	35331	95.8%	1034	5606	6640	18.8%	27714	24.0%	31	
1189:1190: - Hilton La Jolla Torrey Pines	12214	9583	78.5%	920	4390	5310	55.4%	17360	30.6%	31	
1196 - The Keating Hotel	1085	0	0.0%	199	0	199	#DIV/0!	775	25.7%	31	
1207 - Indigo Hotel	6510	5875	90.2%	1688	0	1688	28.7%	2015	83.8%	31	
1241:1242: - Grand Hyatt San Diego	50468	44511	88.2%	2715	7815	10530	23.7%	36022	29.2%	31	
1244:1245: - Hyatt Regency Mission Bay	13299	10940	82.3%	1695	2692	4387	40.1%	3100	141.5%	31	
1324 - Lane Field North Garage	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	31	
1325 - Lane Field North Hotel	12400	9347	75.4%	838	4197	5035	53.9%	12834	39.2%	31	
1535 - San Diego Bayside Campus	11284	9135	81.0%	3999	0	3999	43.8%	5022	79.6%	31	
1539 - Pendry San Diego	9827	3861	39.3%	1400	0	1400	36.3%	3348	41.8%	31	
1543 - Hotel Republic	2322	1190	51.2%	283	0	283	23.8%	540	52.4%	9	
1543 - Hotel Republic	7998	4219	52.8%	1043	0	1043	24.7%	1860	56.1%	31	
1548 - Andaz San Diego	4929	4257	86.4%	996	0	996	23.4%	3100	32.1%	31	
2073 - W La West Beverly Hills	9269	8031	86.6%	2774	0	2774	34.5%	4836	57.4%	31	
2085 - Hyatt Regency Huntington Beach Valet	16027	13508	84.3%	8380	0	8380	62.0%	30690	27.3%	31	
2225:2226: - Crowne Plaza Redondo Beach Hotel	10726	9452	88.1%	864	3496	4360	46.1%	7967	54.7%	31	
2240 - Hampton Inn and Suites La/Santa Monica	4402	3020	68.6%	1112	58	1170	38.7%	3410	34.3%	31	
2241 - Courtyard Santa Monica	4216	3204	76.0%	1388	56	1444	45.1%	2573	56.1%	31	
2514 - Hyatt Regency Newport Beach Valet	12493	10204	81.7%	2153	0	2153	21.1%	5890	36.6%	31	
2515 - Hyatt Regency Newport Beach Self	12493	0	0.0%	0	2880	2880	#DIV/0!	10850	26.5%	31	
2539 - Waterfront Beach Resort Valet	8990	6567	73.0%	4551	0	4551	69.3%	10850	41.9%	31	
2613 - Pasea Hotel and Spa	7750	5132	66.2%	3419	0	3419	66.6%	11129	30.7%	31	
3000 - Hilton Oakland	11222	10064	89.7%	0	4475	4475	44.5%	15500	28.9%	31	
3016 - Oakland Marriott	15159	12835	84.7%	1884	0	1884	14.7%	1240	151.9%	31	
3109 - 900 13th Street - Sacramento	15624	13801	88.3%	386	2879	3265	23.7%	26784	12.2%	31	
3110 - Sheraton Grand Sacramento	15593	12973	83.2%	2285	0	2285	17.6%	2790	81.9%	31	
3151 - Westin Portland	6355	4811	75.7%	1317	0	1317	27.4%	2976	44.3%	31	
3155:3157: - Hotel Deluxe Portland	3968	3657	92.2%	832	195	1027	28.1%	1550	66.3%	31	
3156 - Sentinel	3100	2741	88.4%	637	0	637	23.2%	1860	34.2%	31	
3170 - Embassy Suites Hilton Portland	8556	7575	88.5%	1732	0	1732	22.9%	31000	5.6%	31	
3171 - Embassy Suites Hilton Portland Garage	8556	7575	88.5%	0	939	939	12.4%	9083	10.3%	31	
3216 - Fairmont Olympic Hotel Seattle	13950	11882	85.2%	1513	132	1645	13.8%	3410	48.2%	31	
3219 - The Arctic Club Seattle	3720	3361	90.3%	434	0	434	12.9%	1240	35.0%	31	
3220 - Hotel Lucia	3937	3474	88.2%	546	0	546	15.7%	1085	50.3%	31	
3252 - Hyatt Regency Bellevue	24397	19885	81.5%	1154	1121	2275	11.4%	12214	18.6%	31	
3257 - Westin Bellevue	10509	8765	83.4%	984	477	1461	16.7%	5239	27.9%	31	
3284 - Hilton Garden Inn Seattle	6882	6244	90.7%	1092	0	1092	17.5%	1550	70.5%	31	
3285 - W Bellevue	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
3290 - W Seattle	13144	11350	86.4%	1384	0	1384	12.2%	2604	53.1%	31	
3452 - Hyatt Regency Phoenix	21483	14762	68.7%	1509	1531	3040	20.6%	4650	65.4%	31	
3465:3466: - The Phoenician	20150	6707	33.3%	775	116	891	13.3%	18600	4.8%	31	
3585:3587: - Omni Dallas Hotel	31031	25550	82.3%	4666	4088	8754	34.3%	21762	40.2%	31	
3598 - The Stoneleigh	5425	4531	83.5%	1867	0	1867	41.2%	4650	40.2%	31	
3604 - St Regis Hotel	7192	4848	67.4%	1686	0	1686	34.8%	5425	31.1%	31	
3606:3619: - Woodlands Marriott	10633	7258	68.3%	1470	2440	3910	53.9%	3100	126.1%	31	
3621:3622: - Hilton Houston Post Oak	13888	9759	70.3%	1133	3061	4194	43.0%	10106	41.5%	31	
3634 - Embassy Suites Hilton Houston	8122	4732	58.3%	1755	0	1755	37.1%	2170	80.9%	31	
3654 - Hampton Inn and Homewood Suites Houston	9300	6556	70.5%	2847	0	2847	43.4%	4526	62.9%	31	
3658 - Marriott Marquis Houston	7000	1116	15.9%	555	0	555	49.7%	700	79.3%	7	
3718 - Hyatt Regency Dallas	34720	25065	72.2%	4333	0	4333	17.3%	13950	31.1%	31	
3823 - Marriott Courtyard Sa	6820	5539	81.2%	2632	0	2632	47.5%	3875	67.9%	31	
3831:3832: - Grand Hyatt San Antonio	31000	17049	55.0%	3139	3182	6321	37.1%	10323	61.2%	31	
3833 - Marriott Fairfield Inn & Suites	3069	2496	81.3%	1427	0	1427	57.2%	930	153.4%	31	
3834 - Marriott Spring Hill Suites	3658	2822	77.1%	1516	0	1516	53.7%	1705	88.9%	31	
3850 - Hotel Emma	4526	2753	60.8%	1187	0	1187	43.1%	1550	76.6%	31	
4157 - Omni San Francisco	11222	10204	90.9%	1220	0	1220	12.0%	930	131.2%	31	
4184:4267: - Westin Hotel Sfo	12307	11043	89.7%	638	3022	3660	33.1%	8029	45.6%	31	
4186 - Aloft Sfo	7812	6653	85.2%	0	2394	2394	36.0%	14818	16.2%	31	
4252 - Hotel Adagio	5301	4814	90.8%	747	0	747	15.5%	1209	61.8%	31	
4272 - San Francisco Courtyard	5208	4396	84.4%	728	0	728	16.6%	775	93.9%	31	
4277:4278: - San Jose Double Tree	15655	13305	85.0%	774	5398	6172	46.4%	21855	28.2%	31	
4405 - Roosevelt Hotel New Orleans	15624	8179	52.3%	2749	0	2749	33.6%	5332	51.6%	31	
4409 - Hilton Garden Inn New Orleans Conv Ctr	8866	5034	56.8%	1123	0	1123	22.3%	3100	36.2%	31	
4410 - Old No 77 Hotel	5177	4543	87.8%	762	0	762	16.8%	6200	12.3%	31	
4411 - Hotel Indigo New Orleans	4092	2765	67.6%	1132	0	1132	40.9%	1643	68.9%	31	
4562 - Hyatt Regency Villa Christina	5487	3953	72.0%	287	0	287	7.3%	1550	18.5%	31	
4600 - Sofitel Washington Dc	7347	6829	92.9%	560	0	560	8.2%	434	129.0%	31	
4601 - Renaissance	9300	8584	92.3%	504	1158	1662	19.4%	16647	10.0%	31	
4602 - Residence Inn Arlington	10075	8943	88.8%	66	1804	1870	20.9%	16647	11.2%	31	
4608 - Westin City Center - Dc	12710	10489	82.5%	1303	0	1303	12.4%	4650	28.0%	31	
4611 - Omni Shoreham Dc	25854	21983	85.0%	3673	0	3673	16.7%	9300	39.5%	31	
4613 - Hyatt Place Arlington	5208	4335	83.2%	1274	0	1274	29.4%	2604	48.9%	31	
Total:	1079969	823773	76.3%	132766	99479	232245	28.2%	717464	32.4%		

Daily Drive in & Occupancy
For 06/01/2017
All Locations
Leased/Managed
Report Date 2/8/2018 11:22:40 AM

Date	Rooms Available #	Occupied #	Occupancy %	3am Cars Valet #	Self #	Total #	Drive in %	Stalls Available #	Occupancy %	# Days Entered	west coast
0160:0161: - Marriott La Jolla	11160	10495	94.0%	1078	3287	4365	41.6%	13800	31.6%	30	29.84%
0176 - Westin Gaslamp Quarter	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	21	
0270:0461: - Wyndham San Diego Bayside	18000	15883	88.2%	697	3994	4691	29.5%	8700	53.9%	30	
0271 - US Grant Hotel Valet	8100	6822	84.2%	2368	0	2368	34.7%	6600	35.9%	30	
0316 - Marriott Vacation Club Pulse	7920	7136	90.1%	2164	1388	3552	49.8%	1350	263.1%	30	
0328 - Westin San Diego	13080	11665	89.2%	1494	0	1494	12.8%	1950	76.6%	30	
0370:0371: - Marriott Marquis & Marina San Diego	40800	37901	92.9%	3485	5340	8825	23.3%	28980	30.5%	30	
0375 - Town & Country Convention	28440	14503	51.0%	0	9693	9693	66.8%	41250	23.5%	30	
0575:0576: - Marriott Mission Valley	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	26	
0674:0675: - Westin Seattle Hotel	26730	24794	92.8%	1636	1325	2961	11.9%	6930	42.7%	30	
0678 - Sheraton Seattle Hotel - Valet	37740	34313	90.9%	2457	0	2457	7.2%	12000	20.5%	30	
1050 - Omni Hotel San Diego	15330	13955	91.0%	2642	0	2642	18.9%	6600	40.0%	30	
1076 - Marriott Gaslamp Quarter SD	9180	8408	91.6%	2592	0	2592	30.8%	6180	41.9%	30	
1159 - Hard Rock Hotel	12600	10725	85.1%	2133	0	2133	19.9%	5700	37.4%	30	
1167:1303 - Hyatt Regency La Jolla Valet	12510	11753	93.9%	1707	3233	4940	42.0%	9000	54.9%	30	
1180 - Hilton SD Bayfront Hotel	35700	35334	99.0%	1652	8324	9976	28.2%	26820	37.2%	30	
1189:1190: - Hilton La Jolla Torrey Pines	11820	11072	93.7%	996	5058	6054	54.7%	16800	36.0%	30	
1196 - The Keating Hotel	1050	0	0.0%	189	0	189	#DIV/0!	750	25.2%	30	
1207 - Indigo Hotel	6300	5979	94.9%	1674	0	1674	28.0%	1950	85.8%	30	
1241:1242: - Grand Hyatt San Diego	48840	43487	89.0%	3648	9416	13064	30.0%	34860	37.5%	30	
1244:1245: - Hyatt Regency Mission Bay	12870	12269	95.3%	1963	3858	5821	47.4%	3000	194.0%	30	
1324 - Lane Field North Garage	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	30	
1325 - Lane Field North Hotel	12000	10243	85.4%	921	4134	5055	49.4%	12420	40.7%	30	
1535 - San Diego Bayside Campus	10920	10100	92.5%	4063	0	4063	40.2%	4860	83.6%	30	
1539 - Pendry San Diego	9510	5434	57.1%	1651	0	1651	30.4%	3240	51.0%	30	
1543 - Hotel Republic	7740	5756	74.4%	1349	0	1349	23.4%	1800	74.9%	30	
1548 - Andaz San Diego	4770	3987	83.6%	917	0	917	23.0%	3000	30.6%	30	
2073 - W La West Beverly Hills	8970	8075	90.0%	2808	0	2808	34.8%	4680	60.0%	30	
2085 - Hyatt Regency Huntington Beach Valet	15510	14059	90.6%	8101	0	8101	57.6%	29700	27.3%	30	
2225:2226: - Crowne Plaza Redondo Beach Hotel	10380	9262	89.2%	811	3103	3914	42.3%	7710	50.8%	30	
2240 - Hampton Inn and Suites La/Santa Monica	4260	3857	90.5%	1457	35	1492	38.7%	3300	45.2%	30	
2241 - Courtyard Santa Monica	4080	3402	83.4%	1407	179	1586	46.6%	2490	63.7%	30	
2514 - Hyatt Regency Newport Beach Valet	12090	11121	92.0%	2747	0	2747	24.7%	5700	48.2%	30	
2515 - Hyatt Regency Newport Beach Self	12090	0	0.0%	0	4158	4158	#DIV/0!	10500	39.6%	30	
2539 - Waterfront Beach Resort Valet	8700	6905	79.4%	4682	0	4682	67.8%	10500	44.6%	30	
2613 - Pasea Hotel and Spa	7500	6040	80.5%	4023	0	4023	66.6%	10770	37.4%	30	
3000 - Hilton Oakland	10860	10030	92.4%	0	4264	4264	42.5%	15000	28.4%	30	
3016 - Oakland Marriott	14670	13380	91.2%	1942	0	1942	14.5%	1200	161.8%	30	
3109 - 900 13th Street - Sacramento	15120	12125	80.2%	0	2543	2543	21.0%	25920	9.8%	30	
3110 - Sheraton Grand Sacramento	15090	13190	87.4%	2113	0	2113	16.0%	2700	78.3%	30	
3151 - Westin Portland	6150	4771	77.6%	1324	0	1324	27.8%	2880	46.0%	30	
3155:3157: - Hotel Deluxe Portland	3840	3719	96.8%	887	200	1087	29.2%	1500	72.5%	30	
3156 - Sentinel	3000	2806	93.5%	809	0	809	28.8%	1800	44.9%	30	
3170 - Embassy Suites Hilton Portland	8280	7609	91.9%	1864	0	1864	24.5%	30000	6.2%	30	
3171 - Embassy Suites Hilton Portland Garage	8280	7334	88.6%	0	841	841	11.5%	8790	9.6%	30	
3216 - Fairmont Olympic Hotel Seattle	13500	12402	91.9%	1647	245	1892	15.3%	3300	57.3%	30	
3219 - The Arctic Club Seattle	3600	3291	91.4%	554	0	554	16.8%	1200	46.2%	30	
3220 - Hotel Lucia	3810	3593	94.3%	669	0	669	18.6%	1050	63.7%	30	
3252 - Hyatt Regency Bellevue	23610	19242	81.5%	1592	1879	3471	18.0%	11820	29.4%	30	
3257 - Westin Bellevue	10170	8181	80.4%	1021	529	1550	18.9%	5070	30.6%	30	
3284 - Hilton Garden Inn Seattle	6660	6247	93.8%	962	0	962	15.4%	1500	64.1%	30	
3285 - W Bellevue	7350	894	12.2%	175	22	197	22.0%	3000	6.6%	30	
3290 - W Seattle	12720	12053	94.8%	1407	0	1407	11.7%	2520	55.8%	30	
3452 - Hyatt Regency Phoenix	20790	12941	62.2%	1000	1092	2092	16.2%	4500	46.5%	30	
3465:3466: - The Phoenician	19500	4125	21.2%	415	0	415	10.1%	18000	2.3%	30	
3585:3587: - Omni Dallas Hotel	30030	22351	74.4%	4940	5191	10131	45.3%	21060	48.1%	30	
3598 - The Stoneleigh	5250	4337	82.6%	1878	0	1878	43.3%	4500	41.7%	30	
3604 - St Regis Hotel	6960	3926	56.4%	1531	0	1531	39.0%	5250	29.2%	30	
3606:3619: - Woodlands Marriott	10290	7875	76.5%	1246	1981	3227	41.0%	3000	107.6%	30	
3621:3622: - Hilton Houston Post Oak	13440	8932	66.5%	1006	2500	3506	39.3%	9780	35.8%	30	
3634 - Embassy Suites Hilton Houston	6550	3333	50.9%	1582	0	1582	47.5%	1750	90.4%	25	
3654 - Hampton Inn and Homewood Suites Houston	9000	5560	61.8%	2776	0	2776	49.9%	4380	63.4%	30	
3718 - Hyatt Regency Dallas	33600	23411	69.7%	5034	0	5034	21.5%	13500	37.3%	30	
3823 - Marriott Courtyard Sa	6600	5348	81.0%	2362	0	2362	44.2%	3750	63.0%	30	
3831:3832: - Grand Hyatt San Antonio	30000	19531	65.1%	2555	3264	5819	29.8%	9990	58.2%	30	
3833 - Marriott Fairfield Inn & Suites	2970	2732	92.0%	1506	0	1506	55.1%	900	167.3%	30	
3834 - Marriott Spring Hill Suites	3540	3240	91.5%	1969	0	1969	60.8%	1650	119.3%	30	
3850 - Hotel Emma	4380	2660	60.7%	1167	0	1167	43.9%	1500	77.8%	30	
4157 - Omni San Francisco	10860	9896	91.1%	1364	0	1364	13.8%	900	151.6%	30	
4184:4267: - Westin Hotel Sfo	11910	11176	93.8%	529	3184	3713	33.2%	7770	47.8%	30	
4186 - Aloft Sfo	7560	6936	91.7%	0	2527	2527	36.4%	14340	17.6%	30	
4252 - Hotel Adagio	5130	5009	97.6%	750	0	750	15.0%	1170	64.1%	30	
4272 - San Francisco Courtyard	5040	4369	86.7%	778	0	778	17.8%	750	103.7%	30	
4277:4278: - San Jose Double Tree	15150	13905	91.8%	749	3380	4129	29.7%	21150	19.5%	30	
4405 - Roosevelt Hotel New Orleans	15120	9618	63.6%	2539	0	2539	26.4%	5160	49.2%	30	
4409 - Hilton Garden Inn New Orleans Conv Ctr	8580	4420	51.5%	1276	0	1276	28.9%	3000	42.5%	30	
4410 - Old No 77 Hotel	5010	4242	84.7%	861	0	861	20.3%	6000	14.4%	30	
4411 - Hotel Indigo New Orleans	3960	2244	56.7%	939	0	939	41.8%	1590	59.1%	30	
4562 - Hyatt Regency Villa Christina	5310	4413	83.1%	375	0	375	8.5%	1500	25.0%	30	
4600 - Sofitel Washington Dc	7110	6164	86.7%	698	0	698	11.3%	420	166.2%	30	
4601 - Renaissance	9000	7628	84.8%	398	1125	1523	20.0%	16110	9.5%	30	
4602 - Residence Inn Arlington	9750	7892	80.9%	79	2048	2127	27.0%	16110	13.2%	30	
4608 - Westin City Center - Dc	12300	11949	97.1%	1483	0	1483	12.4%	4500	33.0%	30	
4611 - Omni Shoreham Dc	25020	21493	85.9%	2908	0	2908	13.5%	9000	32.3%	30	
4613 - Hyatt Place Arlington	5040	4353	86.4%	1135	0	1135	26.1%	2520	45.0%	30	
Total:	1018150	821614	80.7%	134306	103340	237646	28.9%	678640	35.0%		

	Rooms			3am Cars				Stalls		# Days	
Date	Available #	Occupied #	Occupancy %	Valet #	Self #	Total #	Drive in %	Available #	Occupancy %	Entered	west coast
0160:0161: - Marriott La Jolla	11532	10812	93.8%	1460	4454	5914	54.7%	14260	41.5%	31	31.54%
0270:0461: - Wyndham San Diego Bayside	18600	17049	91.7%	1046	6369	7415	43.5%	8990	82.5%	31	
0271 - US Grant Hotel Valet	8370	7865	94.0%	2669	0	2669	33.9%	6820	39.1%	31	
0316 - Marriott Vacation Club Pulse	8184	7849	95.9%	2649	1523	4172	53.2%	1395	299.1%	31	
0328 - Westin San Diego	13516	12196	90.2%	2078	0	2078	17.0%	2015	103.1%	31	
0370:0371: - Marriott Marquis & Marina San Diego	42160	37913	89.9%	5996	8379	14375	37.9%	29946	48.0%	31	
0375 - Town & Country Convention	29388	19303	65.7%	0	14076	14076	72.9%	42625	33.0%	31	
0575:0576: - Marriott Mission Valley	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	3	
0674:0675: - Westin Seattle Hotel	27621	25603	92.7%	2366	2152	4518	17.6%	7161	63.1%	31	
0678 - Sheraton Seattle Hotel - Valet	38998	35119	90.1%	3498	0	3498	10.0%	12400	28.2%	31	
1050 - Omni Hotel San Diego	15841	14134	89.2%	3747	0	3747	26.5%	6820	54.9%	31	
1076 - Marriott Gaslamp Quarter SD	9486	8437	88.9%	3052	0	3052	36.2%	6386	47.8%	31	
1159 - Hard Rock Hotel	13020	10654	81.8%	3347	0	3347	31.4%	5890	56.8%	31	
1167:1303: - Hyatt Regency La Jolla Valet	12927	11476	88.8%	1941	3741	5682	49.5%	9300	61.1%	31	
1180 - Hilton SD Bayfront Hotel	36890	35585	96.5%	2813	12930	15743	44.2%	27714	56.8%	31	
1189:1190: - Hilton La Jolla Torrey Pines	12214	11305	92.6%	1280	5734	7014	62.0%	17360	40.4%	31	
1196 - The Keating Hotel	1085	0	0.0%	207	0	207	#DIV/0!	775	26.7%	31	
1207 - Indigo Hotel	6510	6234	95.8%	2162	0	2162	34.7%	2015	107.3%	31	
1241:1242: - Grand Hyatt San Diego	50468	47109	93.3%	5344	12846	18190	38.6%	36022	50.5%	31	
1244:1245: - Hyatt Regency Mission Bay	13299	12816	96.4%	3002	5432	8434	65.8%	3100	272.1%	31	
1324 - Lane Field North Garage	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	31	
1325 - Lane Field North Hotel	12400	11386	91.8%	1110	5444	6554	57.6%	12834	51.1%	31	
1535 - San Diego Bayside Campus	11284	10500	93.1%	4374	0	4374	41.7%	5022	87.1%	31	
1539 - Pendry San Diego	9827	7375	75.0%	2430	3	2433	33.0%	3348	72.7%	31	
1543 - Hotel Republic	7998	6946	86.8%	1828	0	1828	26.3%	1860	98.3%	31	
1548 - Andaz San Diego	4929	4396	89.2%	1267	0	1267	28.8%	3100	40.9%	31	
2073 - W La West Beverly Hills	9269	8284	89.4%	3359	0	3359	40.5%	4836	69.5%	31	
2085 - Hyatt Regency Huntington Beach Valet	16027	15011	93.7%	10870	0	10870	72.4%	30690	35.4%	31	
2225:2226: - Crowne Plaza Redondo Beach Hotel	10726	9519	88.7%	985	3793	4778	50.2%	7967	60.0%	31	
2240 - Hampton Inn and Suites La/Santa Monica	4402	3900	88.6%	1804	0	1804	46.3%	3410	52.9%	31	
2241 - Courtyard Santa Monica	4216	3771	89.4%	1702	0	1702	45.1%	2573	66.1%	31	
2514 - Hyatt Regency Newport Beach Valet	12493	11559	92.5%	3016	0	3016	26.1%	5890	51.2%	31	
2515 - Hyatt Regency Newport Beach Self	12493	0	0.0%	0	4472	4472	#DIV/0!	10850	41.2%	31	
2539 - Waterfront Beach Resort Valet	8990	7888	87.7%	5848	0	5848	74.1%	10850	53.9%	31	
2613 - Pasea Hotel and Spa	7750	6333	81.7%	4267	0	4267	67.4%	11129	38.3%	31	
3000 - Hilton Oakland	11222	10491	93.5%	0	4349	4349	41.5%	15500	28.1%	31	
3016 - Oakland Marriott	15159	12860	84.8%	2036	0	2036	15.8%	1240	164.2%	31	
3109 - 900 13th Street - Sacramento	15624	11103	71.1%	0	2653	2653	23.9%	26784	9.9%	31	
3110 - Sheraton Grand Sacramento	15593	10947	70.2%	1822	0	1822	16.6%	2790	65.3%	31	
3170 - Embassy Suites Hilton Portland	8556	8088	94.5%	2221	0	2221	27.5%	31000	7.2%	31	
3171 - Embassy Suites Hilton Portland Garage	8556	7748	90.6%	0	841	841	10.9%	9083	9.3%	31	
3183:3184: - Hotel Deluxe Portland	3968	3749	94.5%	1009	251	1260	33.6%	1550	81.3%	31	
3185 - Sentinel Hotel	3100	2840	91.6%	780	0	780	27.5%	1860	41.9%	31	
3186 - Hotel Lucia	3937	3642	92.5%	615	0	615	16.9%	1085	56.7%	31	
3187 - Hotel Dossier	6355	6013	94.6%	1702	0	1702	28.3%	2976	57.2%	31	
3216 - Fairmont Olympic Hotel Seattle	13950	12108	86.8%	2085	92	2177	18.0%	3410	63.8%	31	
3219 - The Arctic Club Seattle	3720	3199	86.0%	557	0	557	17.4%	1240	44.9%	31	
3252 - Hyatt Regency Bellevue	24397	18745	76.8%	1575	1580	3155	16.8%	12214	25.8%	31	
3257 - Westin Bellevue	10509	7400	70.4%	1093	486	1579	21.3%	5239	30.1%	31	
3284 - Hilton Garden Inn Seattle	6882	6063	88.1%	1360	0	1360	22.4%	1550	87.7%	31	
3285 - W Bellevue	7595	2895	38.1%	485	231	716	24.7%	3100	23.1%	31	
3290 - W Seattle	13144	12260	93.3%	1506	0	1506	12.3%	2604	57.8%	31	
3452 - Hyatt Regency Phoenix	21483	11164	52.0%	1123	1123	2246	20.1%	4650	48.3%	31	
3465:3466: - The Phoenician	20150	3879	19.3%	309	1	310	8.0%	18600	1.7%	31	
3585:3587: - Omni Dallas Hotel	15015	8222	54.8%	2219	2256	4475	54.4%	10530	42.5%	15	
3598 - The Stoneleigh	5425	4212	77.6%	1834	0	1834	43.5%	4650	39.4%	31	
3604 - St Regis Hotel	7192	3601	50.1%	1416	44	1460	40.5%	5425	26.9%	31	
3606:3619: - Woodlands Marriott	10633	6396	60.2%	1163	1939	3102	48.5%	3100	100.1%	31	
3621:3622: - Hilton Houston Post Oak	13888	8604	62.0%	1017	2887	3904	45.4%	10106	38.6%	31	
3634 - Embassy Suites Hilton Houston	8122	4381	53.9%	2097	0	2097	47.9%	2170	96.6%	31	
3654 - Hampton Inn and Homewood Suites Houston	9300	4778	51.4%	2561	32	2593	54.3%	4526	57.3%	31	
3718 - Hyatt Regency Dallas	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	31	
3823 - Marriott Courtyard Sa	6820	5670	83.1%	3144	0	3144	55.4%	3875	81.1%	31	
3831:3832: - Grand Hyatt San Antonio	31000	23258	75.0%	3848	7134	10982	47.2%	10323	106.4%	31	
3833 - Marriott Fairfield Inn & Suites	3069	2737	89.2%	1893	0	1893	69.2%	930	203.5%	31	
3834 - Marriott Spring Hill Suites	3658	3402	93.0%	2197	0	2197	64.6%	1705	128.9%	31	
3850 - Hotel Emma	4526	2211	48.9%	1148	0	1148	51.9%	1550	74.1%	31	
4157 - Omni San Francisco	11222	10511	93.7%	1508	0	1508	14.3%	930	162.2%	31	
4184:4267: - Westin Hotel Sfo	12307	11213	91.1%	644	3462	4106	36.6%	8029	51.1%	31	
4186 - Aloft Sfo	7812	7187	92.0%	0	2803	2803	39.0%	14818	18.9%	31	
4252 - Hotel Adagio	5301	5088	96.0%	774	26	800	15.7%	1209	66.2%	31	
4272 - San Francisco Courtyard	5208	4025	77.3%	740	0	740	18.4%	775	95.5%	31	
4277:4278: - San Jose Double Tree	15655	12823	81.9%	708	4147	4855	37.9%	21855	22.2%	31	
4405 - Roosevelt Hotel New Orleans	15624	9115	58.3%	3040	0	3040	33.4%	5332	57.0%	31	
4409 - Hilton Garden Inn New Orleans Conv Ctr	8866	4614	52.0%	1474	0	1474	31.9%	3100	47.5%	31	
4410 - Old No 77 Hotel	5177	3483	67.3%	918	0	918	26.4%	6200	14.8%	31	
4411 - Hotel Indigo New Orleans	4092	2674	65.3%	1224	0	1224	45.8%	1643	74.5%	31	
4562 - Hyatt Regency Villa Christina	5487	4551	82.9%	337	0	337	7.4%	1550	21.7%	31	
4600 - Sofitel Washington Dc	7347	6390	87.0%	799	0	799	12.5%	434	184.1%	31	
4601 - Renaissance	9300	8322	89.5%	505	1376	1881	22.6%	16647	11.3%	31	
4602 - Residence Inn Arlington	10075	9007	89.4%	86	2262	2348	26.1%	16647	14.1%	31	
4608 - Westin City Center - Dc	12710	11397	89.7%	1663	0	1663	14.6%	4650	35.8%	31	
4611 - Omni Shoreham Dc	25854	22354	86.5%	4461	0	4461	20.0%	9300	48.0%	31	
4613 - Hyatt Place Arlington	5208	4061	78.0%	1318	0	1318	32.5%	2604	50.6%	31	
Total:	1002706	807808	80.6%	156531	131323	287854	35.6%	676441	42.6%		

Date	Rooms Available #	Occupied #	Occupancy %	3am Cars Valet #	Self #	Total #	Drive in %	Stalls Available #	Occupancy %	# Days Entered	west coast
0160:0161: - Marriott La Jolla	11532	10477	90.9%	1179	4532	5711	54.5%	14260	40.0%	31	33.68%
0270:0461: - Wyndham San Diego Bayside	18600	17078	91.8%	611	5159	5770	33.8%	8990	64.2%	31	
0271 - US Grant Hotel Valet	8370	7581	90.6%	2627	0	2627	34.7%	6820	38.5%	31	
0316 - Marriott Vacation Club Pulse	8184	7388	90.3%	2438	1376	3814	51.6%	1395	273.4%	31	
0328 - Westin San Diego	13516	12810	94.8%	1868	0	1868	14.6%	2015	92.7%	31	
0370:0371: - Marriott Marquis & Marina San Diego	42160	35974	85.3%	4080	6457	10537	29.3%	29946	35.2%	31	
0375 - Town & Country Convention	29388	15176	51.6%	0	10185	10185	67.1%	42625	23.9%	31	
0674:0675: - Westin Seattle Hotel	27621	26558	96.2%	2131	1744	3875	14.6%	7161	54.1%	31	
0678 - Sheraton Seattle Hotel - Valet	38998	36073	92.5%	3646	0	3646	10.1%	12400	29.4%	31	
1050 - Omni Hotel San Diego	15841	14108	89.1%	2808	0	2808	19.9%	6820	41.2%	31	
1076 - Marriott Gaslamp Quarter SD	9486	8469	89.3%	2591	0	2591	30.6%	6386	40.6%	31	
1159 - Hard Rock Hotel	13020	9878	75.9%	2242	0	2242	22.7%	5890	38.1%	31	
1167:1303: - Hyatt Regency La Jolla Valet	12927	11381	88.0%	2137	3891	6028	53.0%	9300	64.8%	31	
1180 - Hilton SD Bayfront Hotel	36890	35992	97.6%	1815	10025	11840	32.9%	27714	42.7%	31	
1189:1190: - Hilton La Jolla Torrey Pines	12214	11057	90.5%	1130	5300	6430	58.2%	17360	37.0%	31	
1196 - The Keating Hotel	1085	0	0.0%	237	0	237	#DIV/0!	775	30.6%	31	
1207 - Indigo Hotel	6510	6042	92.8%	1903	0	1903	31.5%	2015	94.4%	31	
1241:1242: - Grand Hyatt San Diego	50468	44781	88.7%	2991	8228	11219	25.1%	36022	31.1%	31	
1244:1245: - Hyatt Regency Mission Bay	13299	12729	95.7%	3404	5228	8632	67.8%	3100	278.5%	31	
1324 - Lane Field North Garage	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	31	
1325 - Lane Field North Hotel	12400	11328	91.4%	1147	4958	6105	53.9%	12834	47.6%	31	
1535 - San Diego Bayside Campus	11284	10233	90.7%	4353	150	4503	44.0%	5022	89.7%	31	
1539 - Pendry San Diego	9827	6930	70.5%	1968	0	1968	28.4%	3348	58.8%	31	
1543 - Hotel Republic	7998	6925	86.6%	1798	0	1798	26.0%	1860	96.7%	31	
1548 - Andaz San Diego	4929	4320	87.6%	1126	0	1126	26.1%	3100	36.3%	31	
2073 - W La West Beverly Hills	9269	8480	91.5%	3139	0	3139	37.0%	4836	64.9%	31	
2085 - Hyatt Regency Huntington Beach Valet	16027	14708	91.8%	9924	0	9924	67.5%	30690	32.3%	31	
2225:2226: - Crowne Plaza Redondo Beach Hotel	10726	9919	92.5%	847	3635	4482	45.2%	7967	56.3%	31	
2240 - Hampton Inn and Suites La/Santa Monica	4402	4304	97.8%	1463	45	1508	35.0%	3410	44.2%	31	
2241 - Courtyard Santa Monica	4216	4082	96.8%	1521	0	1521	37.3%	2573	59.1%	31	
2514 - Hyatt Regency Newport Beach Valet	12493	11563	92.6%	2776	0	2776	24.0%	5890	47.1%	31	
2515 - Hyatt Regency Newport Beach Self	12493	0	0.0%	0	4226	4226	#DIV/0!	10850	38.9%	31	
2539 - Waterfront Beach Resort Valet	8990	6698	74.5%	4527	0	4527	67.6%	10850	41.7%	31	
2613 - Pasea Hotel and Spa	7750	5963	76.9%	4020	0	4020	67.4%	11129	36.1%	31	
3000 - Hilton Oakland	11222	10180	90.7%	0	4476	4476	44.0%	15500	28.9%	31	
3016 - Oakland Marriott	15159	13790	91.0%	2089	0	2089	15.1%	1240	168.5%	31	
3109 - 900 13th Street - Sacramento	15624	12036	77.0%	0	3122	3122	25.9%	26784	11.7%	31	
3110 - Sheraton Grand Sacramento	15593	12605	80.8%	2179	0	2179	17.3%	2790	78.1%	31	
3170 - Embassy Suites Hilton Portland	8556	8388	98.0%	2008	0	2008	23.9%	31000	6.5%	31	
3171 - Embassy Suites Hilton Portland Garage	8556	8388	98.0%	0	1023	1023	12.2%	9083	11.3%	31	
3183:3184: - Hotel Deluxe Portland	3968	3855	97.2%	1036	333	1369	35.5%	1550	88.3%	31	
3185 - Sentinel Hotel	3100	2852	92.0%	852	0	852	29.9%	1860	45.8%	31	
3186 - Hotel Lucia	3937	3694	93.8%	745	0	745	20.2%	1085	68.7%	31	
3187 - Hotel Dossier	6355	4913	77.3%	1430	0	1430	29.1%	2976	48.1%	31	
3216 - Fairmont Olympic Hotel Seattle	13950	13256	95.0%	2128	100	2228	16.8%	3410	65.3%	31	
3219 - The Arctic Club Seattle	3720	3538	95.1%	645	0	645	18.2%	1240	52.0%	31	
3252 - Hyatt Regency Bellevue	24397	20064	82.2%	1670	1963	3633	18.1%	12214	29.7%	31	
3257 - Westin Bellevue	10509	7429	70.7%	1225	574	1799	24.2%	5239	34.3%	31	
3284 - Hilton Garden Inn Seattle	6882	6451	93.7%	1233	0	1233	19.1%	1550	79.5%	31	
3285 - W Bellevue	7595	3390	44.6%	521	266	787	23.2%	3100	25.4%	31	
3290 - W Seattle	13144	12239	93.1%	1248	0	1248	10.2%	2604	47.9%	31	
3452 - Hyatt Regency Phoenix	21483	11586	53.9%	1274	1482	2756	23.8%	4650	59.3%	31	
3465:3466: - The Phoenician	20150	5225	25.9%	244	0	244	4.7%	18600	1.3%	31	
3598 - The Stoneleigh	5425	4170	76.9%	1797	0	1797	43.1%	4650	38.6%	31	
3604 - St Regis Hotel	7192	3522	49.0%	1277	0	1277	36.3%	5425	23.5%	31	
3606:3619: - Woodlands Marriott	10633	6414	60.3%	1142	1907	3049	47.5%	3100	98.4%	31	
3621:3622: - Hilton Houston Post Oak	13888	9556	68.8%	851	2630	3481	36.4%	10106	34.4%	31	
3634 - Embassy Suites Hilton Houston	8122	3809	46.9%	1730	730	2460	64.6%	2170	113.4%	31	
3654 - Hampton Inn and Homewood Suites Houston	9300	4628	49.8%	2342	0	2342	50.6%	4526	51.7%	31	
3823 - Marriott Courtyard Sa	6820	4592	67.3%	2292	0	2292	49.9%	3875	59.1%	31	
3831:3832: - Grand Hyatt San Antonio	31000	18082	58.3%	2299	4508	6807	37.6%	10323	65.9%	31	
3833 - Marriott Fairfield Inn & Suites	3069	2226	72.5%	1517	0	1517	68.1%	930	163.1%	31	
3834 - Marriott Spring Hill Suites	3658	2597	71.0%	1649	0	1649	63.5%	1705	96.7%	31	
3850 - Hotel Emma	4526	2613	57.7%	924	0	924	35.4%	1550	59.6%	31	
4157 - Omni San Francisco	11222	10042	89.5%	1266	0	1266	12.6%	930	136.1%	31	
4184:4267: - Westin Hotel Sfo	12307	11760	95.6%	473	3651	4124	35.1%	8029	51.4%	31	
4186 - Aloft Sfo	7812	7597	97.2%	0	2930	2930	38.6%	14818	19.8%	31	
4252 - Hotel Adagio	5301	5184	97.8%	887	111	998	19.3%	1209	82.5%	31	
4272 - San Francisco Courtyard	5208	4872	93.5%	953	46	999	20.5%	775	128.9%	31	
4277:4278: - San Jose Double Tree	15655	13987	89.3%	644	2745	3389	24.2%	21855	15.5%	31	
4405 - Roosevelt Hotel New Orleans	15624	9665	61.9%	2893	0	2893	29.9%	5332	54.3%	31	
4409 - Hilton Garden Inn New Orleans Conv Ctr	8866	3339	37.7%	833	0	833	24.9%	3100	26.9%	31	
4410 - Old No 77 Hotel	5177	2664	51.5%	696	0	696	26.1%	6200	11.2%	31	
4411 - Hotel Indigo New Orleans	4092	2259	55.2%	1161	0	1161	51.4%	1643	70.7%	31	
4562 - Hyatt Regency Villa Christina	5487	3915	71.4%	219	0	219	5.6%	1550	14.1%	31	
4600 - Sofitel Washington Dc	7347	6066	82.6%	712	0	712	11.7%	434	164.1%	31	
4601 - Renaissance	9300	7683	82.6%	421	1283	1704	22.2%	16647	10.2%	31	
4602 - Residence Inn Arlington	10075	8049	79.9%	62	2503	2565	31.9%	16647	15.4%	31	
4608 - Westin City Center - Dc	12710	10204	80.3%	1618	0	1618	15.9%	4650	34.8%	31	
4611 - Omni Shoreham Dc	25854	19827	76.7%	5749	0	5749	29.0%	9300	61.8%	31	
4613 - Hyatt Place Arlington	5208	4063	78.0%	1301	0	1301	32.0%	2604	50.0%	31	
Total:	987691	786269	79.6%	136682	111522	248204	31.6%	665911	37.3%		

Daily Drive in & Occupancy
For 09/01/2017
All Locations
Leased/Managed
Report Date 2/8/2018 11:29:10 AM

Date	Rooms Available #	Occupied #	Occupancy %	3am Cars Valet #	Self #	Total #	Drive in %	Stalls Available #	Occupancy %	# Days Entered	west coast
0160:0161: - Marriott La Jolla	11160	9138	81.9%	991	3814	4805	52.6%	13800	34.8%	30	31.74%
0270:0461: - Wyndham San Diego Bayside	18000	15501	86.1%	736	4416	5152	33.2%	8700	59.2%	30	
0271 - US Grant Hotel Valet	8100	7111	87.8%	2216	0	2216	31.2%	6600	33.6%	30	
0316 - Marriott Vacation Club Pulse	7920	6532	82.5%	2051	1026	3077	47.1%	1350	227.9%	30	
0328 - Westin San Diego	13080	11466	87.7%	1411	0	1411	12.3%	1950	72.4%	30	
0370:0371: - Marriott Marquis & Marina San Diego	40800	35194	86.3%	3799	5431	9230	26.2%	28980	31.8%	30	
0375 - Town & Country Convention	28440	10997	38.7%	0	7877	7877	71.6%	41250	19.1%	30	
0674:0675: - Westin Seattle Hotel	26730	24245	90.7%	1879	1371	3250	13.4%	6930	46.9%	30	
0678 - Sheraton Seattle Hotel - Valet	37740	34935	92.6%	3184	0	3184	9.1%	12000	26.5%	30	
1050 - Omni Hotel San Diego	15330	13285	86.7%	2417	0	2417	18.2%	6600	36.6%	30	
1076 - Marriott Gaslamp Quarter SD	9180	7956	86.7%	2263	0	2263	28.4%	6180	36.6%	30	
1159 - Hard Rock Hotel	12600	9892	78.5%	1980	0	1980	20.0%	5700	34.7%	30	
1167:1303: - Hyatt Regency La Jolla Valet	12510	11491	91.9%	1498	3406	4904	42.7%	9000	54.5%	30	
1180 - Hilton SD Bayfront Hotel	35700	33651	94.3%	1529	7204	8733	26.0%	26820	32.6%	30	
1189:1190: - Hilton La Jolla Torrey Pines	11820	10528	89.1%	896	4194	5090	48.3%	16800	30.3%	30	
1196 - The Keating Hotel	1050	0	0.0%	197	0	197	#DIV/0!	750	26.3%	30	
1207 - Indigo Hotel	6300	5738	91.1%	1636	0	1636	28.5%	1950	83.9%	30	
1241:1242: - Grand Hyatt San Diego	48840	37293	76.4%	3643	8359	12002	32.2%	34860	34.4%	30	
1244:1245: - Hyatt Regency Mission Bay	12870	11267	87.5%	2128	4272	6400	56.8%	3000	213.3%	30	
1324 - Lane Field North Garage	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	30	
1325 - Lane Field North Hotel	12000	10483	87.4%	1010	4462	5472	52.2%	12420	44.1%	30	
1535 - San Diego Bayside Campus	10920	9778	89.5%	3587	125	3712	38.0%	4860	76.4%	30	
1539 - Pendry San Diego	9510	5982	62.9%	1769	0	1769	29.6%	3240	54.6%	30	
1543 - Hotel Republic	7740	6121	79.1%	1667	0	1667	27.2%	1800	92.6%	30	
1548 - Andaz San Diego	4770	4228	88.6%	1097	0	1097	25.9%	3000	36.6%	30	
2073 - W La West Beverly Hills	8970	7767	86.6%	2590	0	2590	33.3%	4680	55.3%	30	
2085 - Hyatt Regency Huntington Beach Valet	15510	13520	87.2%	7130	0	7130	52.7%	29700	24.0%	30	
2225:2226: - Crowne Plaza Redondo Beach Hotel	10380	9059	87.3%	739	3103	3842	42.4%	7710	49.8%	30	
2240 - Hampton Inn and Suites La/Santa Monica	4260	4016	94.3%	1187	0	1187	29.6%	3300	36.0%	30	
2241 - Courtyard Santa Monica	4080	3724	91.3%	1291	0	1291	34.7%	2490	51.8%	30	
2514 - Hyatt Regency Newport Beach Valet	12090	10815	89.5%	2414	0	2414	22.3%	5700	42.4%	30	
2515 - Hyatt Regency Newport Beach Self	12090	0	0.0%	0	4001	4001	#DIV/0!	10500	38.1%	30	
2539 - Waterfront Beach Resort Valet	8700	6644	76.4%	4409	0	4409	66.4%	10500	42.0%	30	
2613 - Pasea Hotel and Spa	7500	6005	80.1%	3490	0	3490	58.1%	10770	32.4%	30	
3000 - Hilton Oakland	10860	9450	87.0%	0	4383	4383	46.4%	15000	29.2%	30	
3016 - Oakland Marriott	14670	12735	86.8%	1806	0	1806	14.2%	1200	150.5%	30	
3109 - 900 13th Street - Sacramento	15120	9389	62.1%	0	3293	3293	35.1%	25920	12.7%	30	
3110 - Sheraton Grand Sacramento	15090	13216	87.6%	2330	0	2330	17.6%	2700	86.3%	30	
3170 - Embassy Suites Hilton Portland	8280	7746	93.6%	1834	0	1834	23.7%	30000	6.1%	30	
3171 - Embassy Suites Hilton Portland Garage	8280	7746	93.6%	0	937	937	12.1%	8790	10.7%	30	
3183:3184: - Hotel Deluxe Portland	3840	3579	93.2%	841	344	1185	33.1%	1500	79.0%	30	
3185 - Sentinel Hotel	3000	2720	90.7%	649	0	649	23.9%	1800	36.1%	30	
3186 - Hotel Lucia	3810	3348	87.9%	704	0	704	21.0%	1050	67.0%	30	
3187 - Hotel Dossier	6150	3989	64.9%	1017	0	1017	25.5%	2880	35.3%	30	
3216 - Fairmont Olympic Hotel Seattle	13500	12182	90.2%	1893	46	1939	15.9%	3300	58.8%	30	
3219 - The Arctic Club Seattle	3600	3122	86.7%	621	0	621	19.9%	1200	51.8%	30	
3252 - Hyatt Regency Bellevue	23610	19290	81.7%	1668	1310	2978	15.4%	11820	25.2%	30	
3257 - Westin Bellevue	10170	8268	81.3%	948	484	1432	17.3%	5070	28.2%	30	
3284 - Hilton Garden Inn Seattle	6660	6033	90.6%	1196	0	1196	19.8%	1500	79.7%	30	
3285 - W Bellevue	7350	3431	46.7%	569	180	749	21.8%	3000	25.0%	30	
3290 - W Seattle	12720	11598	91.2%	1456	0	1456	12.6%	2520	57.8%	30	
3452 - Hyatt Regency Phoenix	20790	10823	52.1%	869	599	1468	13.6%	4500	32.6%	30	
3465:3466: - The Phoenician	19500	5379	27.6%	327	16	343	6.4%	18000	1.9%	30	
3598 - The Stoneleigh	5250	4258	81.1%	1416	334	1750	41.1%	4500	38.9%	30	
3604 - St Regis Hotel	6960	3852	55.3%	1927	0	1927	50.0%	5250	36.7%	30	
3606:3619: - Woodlands Marriott	10290	7975	77.5%	1412	1749	3161	39.6%	3000	105.4%	30	
3621:3622: - Hilton Houston Post Oak	13440	10124	75.3%	1306	3770	5076	50.1%	9780	51.9%	30	
3634 - Embassy Suites Hilton Houston	7860	5162	65.7%	2000	2000	4000	77.5%	2100	190.5%	30	
3654 - Hampton Inn and Homewood Suites Houston	9000	7664	85.2%	3620	0	3620	47.2%	4380	82.6%	30	
3823 - Marriott Courtyard Sa	6600	3960	60.0%	1603	0	1603	40.5%	3750	42.7%	30	
3831:3832: - Grand Hyatt San Antonio	24690	17702	71.7%	2023	3248	5271	29.8%	9990	52.8%	30	
3833 - Marriott Fairfield Inn & Suites	2970	2044	68.8%	965	0	965	47.2%	900	107.2%	30	
3834 - Marriott Spring Hill Suites	3540	2373	67.0%	1322	0	1322	55.7%	1650	80.1%	30	
3850 - Hotel Emma	4380	2354	53.7%	1100	0	1100	46.7%	1500	73.3%	30	
4157 - Omni San Francisco	10860	9563	88.1%	1159	0	1159	12.1%	900	128.8%	30	
4184:4267: - Westin Hotel Sfo	11910	11580	97.2%	502	3361	3863	33.4%	7770	49.7%	30	
4186 - Aloft Sfo	7560	7399	97.9%	0	2574	2574	34.8%	14340	17.9%	30	
4252 - Hotel Adagio	5130	4909	95.7%	743	0	743	15.1%	1170	63.5%	30	
4272 - San Francisco Courtyard	3528	3097	87.8%	407	162	569	18.4%	525	108.4%	21	
4277:4278: - San Jose Double Tree	15150	12316	81.3%	898	3213	4111	33.4%	21150	19.4%	30	
4405 - Roosevelt Hotel New Orleans	15120	10851	71.8%	2693	0	2693	24.8%	5160	52.2%	30	
4409 - Hilton Garden Inn New Orleans Conv Ctr	8580	3327	38.8%	917	0	917	27.6%	3000	30.6%	30	
4410 - Old No 77 Hotel	5010	3824	76.3%	793	0	793	20.7%	6000	13.2%	30	
4411 - Hotel Indigo New Orleans	3960	2457	62.0%	1028	0	1028	41.8%	1590	64.7%	30	
4412 - Doubletree New Orleans	11010	5064	46.0%	1530	0	1530	30.2%	3000	51.0%	30	
4562 - Hyatt Regency Villa Christina	5310	4245	79.9%	462	0	462	10.9%	1500	30.8%	30	
4600 - Sofitel Washington Dc	7110	5531	77.8%	559	0	559	10.1%	420	133.1%	30	
4601 - Renaissance	9000	7001	77.8%	595	1495	2090	29.9%	16110	13.0%	30	
4602 - Residence Inn Arlington	9750	7871	80.7%	82	2132	2214	28.1%	16110	13.7%	30	
4608 - Westin City Center - Dc	12300	7804	77.7%	1348	0	1348	17.3%	4500	30.0%	30	
4611 - Omni Shoreham Dc	25020	19377	77.4%	2452	0	2452	12.7%	9000	27.2%	30	
4613 - Hyatt Place Arlington	5040	3894	77.3%	897	0	897	23.0%	2520	35.6%	30	
Total:	960018	745984	77.7%	121321	98691	220012	29.5%	647205	34.0%		

Daily Drive in & Occupancy
For 10/01/2017
All Locations
Leased/Managed
Report Date 2/8/2018 11:30:09 AM

Date	Rooms			3am Cars				Stalls		# Days	
	Available #	Occupied #	Occupancy %	Valet #	Self #	Total #	Drive in %	Available #	Occupancy %	Entered	west coast
0160:0161: - Marriott La Jolla	11532	9641	83.6%	1050	3391	4441	46.1%	14260	31.1%	31	28.37%
0270:0461: - Wyndham San Diego Bayside	18600	15333	82.4%	627	3880	4507	29.4%	8990	50.1%	31	
0271 - US Grant Hotel Valet	8370	6992	83.5%	2028	0	2028	29.0%	6820	29.7%	31	
0316 - Marriott Vacation Club Pulse	8184	6801	83.1%	1852	988	2840	41.8%	1395	203.6%	31	
0328 - Westin San Diego	13516	11749	86.9%	1339	0	1339	11.4%	2015	66.5%	31	
0370:0371: - Marriott Marquis & Marina San Diego	42160	39274	93.2%	3745	5268	9013	22.9%	29946	30.1%	31	
0375 - Town & Country Convention	29388	12935	44.0%	0	5109	5109	39.5%	42625	12.0%	31	
0674:0675: - Westin Seattle Hotel	27621	23822	86.2%	1875	1302	3177	13.3%	7161	44.4%	31	
0678 - Sheraton Seattle Hotel - Valet	38998	33452	85.8%	2726	0	2726	8.1%	12400	22.0%	31	
1050 - Omni Hotel San Diego	15841	12826	81.0%	1657	0	1657	12.9%	6820	24.3%	31	
1076 - Marriott Gaslamp Quarter SD	9486	8109	85.5%	1755	0	1755	21.6%	6386	27.5%	31	
1159 - Hard Rock Hotel	13020	10574	81.2%	1619	0	1619	15.3%	5890	27.5%	31	
1167:1303: - Hyatt Regency La Jolla Valet	12927	11194	86.6%	1496	3195	4691	41.9%	9300	50.4%	31	
1180 - Hilton SD Bayfront Hotel	36890	34622	93.9%	1243	5428	6671	19.3%	27714	24.1%	31	
1189:1190: - Hilton La Jolla Torrey Pines	12214	10282	84.2%	702	3641	4343	42.2%	17360	25.0%	31	
1196 - The Keating Hotel	1085	0	0.0%	260	0	260	#DIV/0!	775	33.5%	31	
1207 - Indigo Hotel	6510	5815	89.3%	1281	0	1281	22.0%	2015	63.6%	31	
1241:1242: - Grand Hyatt San Diego	50468	42336	83.9%	2771	6155	8926	21.1%	36022	24.8%	31	
1244:1245: - Hyatt Regency Mission Bay	13299	10083	75.8%	1818	4233	6051	60.0%	3100	195.2%	31	
1324 - Lane Field North Garage	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	31	
1325 - Lane Field North Hotel	12400	10570	85.2%	1042	3846	4888	46.2%	12834	38.1%	31	
1535 - San Diego Bayside Campus	11284	9373	83.1%	3667	124	3791	40.4%	5022	75.5%	31	
1539 - Pendry San Diego	9827	7083	72.1%	1720	0	1720	24.3%	3348	51.4%	31	
1543 - Hotel Republic	7998	6253	78.2%	1380	0	1380	22.1%	1860	74.2%	31	
1548 - Andaz San Diego	4929	4348	88.2%	1013	0	1013	23.3%	3100	32.7%	31	
2073 - W La West Beverly Hills	9269	7920	85.4%	2657	0	2657	33.5%	4836	54.9%	31	
2085 - Hyatt Regency Huntington Beach Valet	16027	14173	88.4%	6667	0	6667	47.0%	30690	21.7%	31	
2225:2226: - Crowne Plaza Redondo Beach Hotel	10726	9497	88.5%	868	3232	4100	43.2%	7967	51.5%	31	
2240 - Hampton Inn and Suites La/Santa Monica	4402	4033	91.6%	1296	0	1296	32.1%	3410	38.0%	31	
2241 - Courtyard Santa Monica	4216	3916	92.9%	1234	0	1234	31.5%	2573	48.0%	31	
2514 - Hyatt Regency Newport Beach Valet	12493	10037	80.3%	2244	0	2244	22.4%	5890	38.1%	31	
2515 - Hyatt Regency Newport Beach Self	12493	0	0.0%	0	3282	3282	#DIV/0!	10850	30.2%	31	
2539 - Waterfront Beach Resort Valet	8990	6715	74.7%	4198	0	4198	62.5%	10850	38.7%	31	
2613 - Pasea Hotel and Spa	7750	6295	81.2%	3728	0	3728	59.2%	11129	33.5%	31	
3000 - Hilton Oakland	11222	9903	88.2%	0	3789	3789	38.3%	15500	24.4%	31	
3016 - Oakland Marriott	15159	13594	89.7%	1552	0	1552	11.4%	1240	125.2%	31	
3109 - 900 13th Street - Sacramento	15624	12315	78.8%	0	3197	3197	26.0%	26784	11.9%	31	
3110 - Sheraton Grand Sacramento	15593	13264	85.1%	2390	0	2390	18.0%	2790	85.7%	31	
3170 - Embassy Suites Hilton Portland	8556	7847	91.7%	1750	0	1750	22.3%	31000	5.6%	31	
3171 - Embassy Suites Hilton Portland Garage	8556	7325	85.6%	0	757	757	10.3%	9083	8.3%	31	
3183:3184: - Hotel Deluxe Portland	3968	3620	91.2%	810	261	1071	29.6%	1550	69.1%	31	
3185 - Sentinel Hotel	3100	2707	87.3%	686	0	686	25.3%	1860	36.9%	31	
3186 - Hotel Lucia	3937	3324	84.4%	535	0	535	16.1%	1085	49.3%	31	
3187 - Hotel Dossier	6355	4135	65.1%	1022	0	1022	24.7%	2976	34.3%	31	
3216 - Fairmont Olympic Hotel Seattle	13950	12847	92.1%	2062	71	2133	16.6%	3410	62.6%	31	
3219 - The Arctic Club Seattle	3720	2173	58.4%	477	0	477	22.0%	1240	38.5%	31	
3252 - Hyatt Regency Bellevue	24397	15697	64.3%	1183	1212	2395	15.3%	12214	19.6%	31	
3257 - Westin Bellevue	10509	8428	80.2%	960	706	1666	19.8%	5239	31.8%	31	
3284 - Hilton Garden Inn Seattle	6882	5992	87.1%	1063	28	1091	18.2%	1550	70.4%	31	
3285 - W Bellevue	7595	4203	55.3%	618	362	980	23.3%	3100	31.6%	31	
3290 - W Seattle	13144	11064	84.2%	1275	0	1275	11.5%	2604	49.0%	31	
3452 - Hyatt Regency Phoenix	21483	15717	73.2%	1022	558	1580	10.1%	4650	34.0%	31	
3465:3466: - The Phoenician	20150	11445	56.8%	765	850	1615	14.1%	18600	8.7%	31	
3598 - The Stoneleigh	5425	4790	88.3%	1689	0	1689	35.3%	4650	36.3%	31	
3604 - St Regis Hotel	7192	5552	77.2%	2033	0	2033	36.6%	5425	37.5%	31	
3606:3619: - Woodlands Marriott	10633	7104	66.8%	892	1562	2454	34.5%	3100	79.2%	31	
3621:3622: - Hilton Houston Post Oak	13888	10888	78.4%	1575	3109	4684	43.0%	10106	46.3%	31	
3634 - Embassy Suites Hilton Houston	8122	4566	56.2%	1960	1960	3920	85.9%	2170	180.6%	31	
3654 - Hampton Inn and Homewood Suites Houston	9300	7167	77.1%	2163	0	2163	30.2%	4526	47.8%	31	
3823 - Marriott Courtyard Sa	6820	3937	57.7%	1579	0	1579	40.1%	3875	40.7%	31	
3831:3832: - Grand Hyatt San Antonio	25513	20453	80.2%	2048	2551	4599	22.5%	10323	44.6%	31	
3833 - Marriott Fairfield Inn & Suites	3069	2338	76.2%	1169	0	1169	50.0%	930	125.7%	31	
3834 - Marriott Spring Hill Suites	3658	2728	74.6%	1250	0	1250	45.8%	1705	73.3%	31	
3850 - Hotel Emma	4526	3015	66.6%	995	0	995	33.0%	1550	64.2%	31	
4157 - Omni San Francisco	11222	9949	88.7%	1099	0	1099	11.0%	930	118.2%	31	
4184:4267: - Westin Hotel Sfo	12307	11707	95.1%	361	3110	3471	29.6%	8029	43.2%	31	
4186 - Aloft Sfo	7812	7509	96.1%	0	2242	2242	29.9%	14818	15.1%	31	
4252 - Hotel Adagio	5301	5049	95.2%	603	12	615	12.2%	1209	50.9%	31	
4277:4278: - San Jose Double Tree	15655	13397	85.6%	670	3139	3809	28.4%	21855	17.4%	31	
4405 - Roosevelt Hotel New Orleans	15624	12784	81.8%	2329	0	2329	18.2%	5332	43.7%	31	
4409 - Hilton Garden Inn New Orleans Conv Ctr	8866	3932	44.3%	1158	0	1158	29.5%	3100	37.4%	31	
4410 - Old No 77 Hotel	5177	4187	80.9%	560	0	560	13.4%	6200	9.0%	31	
4411 - Hotel Indigo New Orleans	4092	3082	75.3%	838	0	838	27.2%	1643	51.0%	31	
4412 - Doubletree New Orleans	11377	9257	81.4%	2188	0	2188	23.6%	3100	70.6%	31	
4562 - Hyatt Regency Villa Christina	5487	4103	74.8%	245	0	245	6.0%	1550	15.8%	31	
4600 - Sofitel Washington Dc	7347	6696	91.1%	528	0	528	7.9%	434	121.7%	31	
4601 - Renaissance	9300	8334	89.6%	545	1252	1797	21.6%	16647	10.8%	31	
4602 - Residence Inn Arlington	10075	9179	91.1%	43	1820	1863	20.3%	16647	11.2%	31	
4611 - Omni Shoreham Dc	25854	22533	87.2%	3326	0	3326	14.8%	9300	35.8%	31	
4613 - Hyatt Place Arlington	5208	4292	82.4%	1052	0	1052	24.5%	2604	40.4%		
Total:	975663	780181	80.0%	112626	85622	198248	25.4%	663586	29.9%		

Daily Drive in & Occupancy
For 11/01/2017
All Locations
Leased/Managed
Report Date 2/8/2018 11:30:50 AM

Date	Rooms			3am Cars				Stalls		# Days	
	Available #	Occupied #	Occupancy %	Valet #	Self #	Total #	Drive in %	Available #	Occupancy %	Entered	west coast
0160:0161: - Marriott La Jolla	11160	9358	83.9%	1030	3745	4775	51.0%	13800	34.6%	30	30.00%
0270:0461: - Wyndham San Diego Bayside	18000	15081	83.8%	449	3060	3509	23.3%	8700	40.3%	30	
0271 - US Grant Hotel Valet	8100	6175	76.2%	2127	0	2127	34.4%	6600	32.2%	30	
0316 - Marriott Vacation Club Pulse	7920	6445	81.4%	1932	838	2770	43.0%	1350	205.2%	30	
0328 - Westin San Diego	13080	10660	81.5%	1150	0	1150	10.8%	1950	59.0%	30	
0370:0371: - Marriott Marquis & Marina San Diego	40800	29427	72.1%	3777	5653	9430	32.0%	28980	32.5%	30	
0375 - Town & Country Convention	28440	7334	25.8%	0	4487	4487	61.2%	41250	10.9%	30	
0674:0675: - Westin Seattle Hotel	26730	20445	76.5%	1692	1012	2704	13.2%	6930	39.0%	30	
0678 - Sheraton Seattle Hotel - Valet	37740	24434	64.7%	2106	0	2106	8.6%	12000	17.6%	30	
1050 - Omni Hotel San Diego	15330	10283	67.1%	1077	0	1077	10.5%	6600	16.3%	30	
1076 - Marriott Gaslamp Quarter SD	9180	7103	77.4%	1867	0	1867	26.3%	6180	30.2%	30	
1159 - Hard Rock Hotel	12600	8145	64.6%	1395	0	1395	17.1%	5700	24.5%	30	
1167:1303: - Hyatt Regency La Jolla Valet	12510	9804	78.4%	1635	3136	4771	48.7%	9000	53.0%	30	
1180 - Hilton SD Bayfront Hotel	35700	31641	88.6%	932	7418	8350	26.4%	26820	31.1%	30	
1189:1190: - Hilton La Jolla Torrey Pines	11820	9381	79.4%	821	4021	4842	51.6%	16800	28.8%	30	
1196 - The Keating Hotel	1050	0	0.0%	173	0	173	#DIV/0!	750	23.1%	30	
1207 - Indigo Hotel	6300	5130	81.4%	1026	0	1026	20.0%	1950	52.6%	30	
1241:1242: - Grand Hyatt San Diego	48840	40762	83.5%	2610	7114	9724	23.9%	34860	27.9%	30	
1244:1245: - Hyatt Regency Mission Bay	12870	9853	76.6%	1211	3452	4663	47.3%	3000	155.4%	30	
1324 - Lane Field North Garage	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	30	
1325 - Lane Field North Hotel	12000	9510	79.3%	713	3813	4526	47.6%	12420	36.4%	30	
1535 - San Diego Bayside Campus	10920	8946	81.9%	3146	0	3146	35.2%	4860	64.7%	30	
1539 - Pendry San Diego	9510	5924	62.3%	1382	0	1382	23.3%	3240	42.7%	30	
1543 - Hotel Republic	7740	5371	69.4%	1103	0	1103	20.5%	1800	61.3%	30	
1548 - Andaz San Diego	4770	3370	70.6%	717	0	717	21.3%	3000	23.9%	30	
2073 - W La West Beverly Hills	8970	6896	76.9%	2228	0	2228	32.3%	4680	47.6%	30	
2085 - Hyatt Regency Huntington Beach Valet	15510	13011	83.9%	5711	1660	7371	56.7%	29700	24.8%	30	
2225:2226: - Crowne Plaza Redondo Beach Hotel	10380	8720	84.0%	581	2524	3105	35.6%	7710	40.3%	30	
2240 - Hampton Inn and Suites La/Santa Monica	4260	3531	82.9%	1107	0	1107	31.4%	3300	33.5%	30	
2241 - Courtyard Santa Monica	4080	3499	85.8%	1109	0	1109	31.7%	2490	44.5%	30	
2514 - Hyatt Regency Newport Beach Valet	12090	9038	74.8%	2129	0	2129	23.6%	5700	37.4%	30	
2515 - Hyatt Regency Newport Beach Self	12090	0	0.0%	0	3567	3567	#DIV/0!	10500	34.0%	30	
2539 - Waterfront Beach Resort Valet	8700	4646	53.4%	3700	0	3700	79.6%	10500	35.2%	30	
2613 - Pasea Hotel and Spa	7500	5137	68.5%	3164	0	3164	61.6%	10770	29.4%	30	
3000 - Hilton Oakland	10860	8813	81.2%	0	3048	3048	34.6%	15000	20.3%	30	
3016 - Oakland Marriott	14670	12669	86.4%	1379	0	1379	10.9%	1200	114.9%	30	
3109 - 900 13th Street - Sacramento	15120	9977	66.0%	0	2486	2486	24.9%	25920	9.6%	30	
3110 - Sheraton Grand Sacramento	15090	11856	78.6%	1956	0	1956	16.5%	2700	72.4%	30	
3170 - Embassy Suites Hilton Portland	8280	7111	85.9%	1528	0	1528	21.5%	30000	5.1%	30	
3171 - Embassy Suites Hilton Portland Garage	8280	6499	78.5%	0	798	798	12.3%	8790	9.1%	30	
3183:3184: - Hotel Deluxe Portland	3840	3043	79.2%	691	196	887	29.1%	1500	59.1%	30	
3185 - Sentinel Hotel	3000	2479	82.6%	721	0	721	29.1%	1800	40.1%	30	
3186 - Hotel Lucia	3810	3006	78.9%	582	0	582	19.4%	1050	55.4%	30	
3187 - Hotel Dossier	6150	3196	52.0%	816	0	816	25.5%	2880	28.3%	30	
3216 - Fairmont Olympic Hotel Seattle	13500	11308	83.8%	2356	125	2481	21.9%	3300	75.2%	30	
3219 - The Arctic Club Seattle	3600	2519	70.0%	448	0	448	17.8%	1200	37.3%	30	
3252 - Hyatt Regency Bellevue	23610	13954	59.1%	1542	1266	2808	20.1%	11820	23.8%	30	
3257 - Westin Bellevue	10170	7555	74.3%	992	583	1575	20.8%	5070	31.1%	30	
3284 - Hilton Garden Inn Seattle	6660	5863	88.0%	1203	0	1203	20.5%	1500	80.2%	30	
3285 - W Bellevue	7350	4105	55.9%	643	344	987	24.0%	3000	32.9%	30	
3290 - W Seattle	12720	9426	74.1%	1117	94	1211	12.8%	2520	48.1%	30	
3452 - Hyatt Regency Phoenix	20790	12479	60.0%	1003	495	1498	12.0%	4500	33.3%	30	
3465:3466: - The Phoenician	19500	13539	69.4%	914	1113	2027	15.0%	18000	11.3%	30	
3598 - The Stoneleigh	5250	4199	80.0%	1449	0	1449	34.5%	4500	32.2%	30	
3604 - St Regis Hotel	6960	5103	73.3%	1929	0	1929	37.8%	5250	36.7%	30	
3606:3619: - Woodlands Marriott	10290	7169	69.7%	796	1627	2423	33.8%	3000	80.8%	30	
3621:3622: - Hilton Houston Post Oak	13440	9110	67.8%	1489	2659	4148	45.5%	9780	42.4%	30	
3634 - Embassy Suites Hilton Houston	7860	3840	48.9%	1783	1831	3614	94.1%	2100	172.1%	30	
3654 - Hampton Inn and Homewood Suites Houston	9000	5508	61.2%	1677	0	1677	30.4%	4380	38.3%	30	
3823 - Marriott Courtyard Sa	6600	4016	60.8%	1705	0	1705	42.5%	3750	45.5%	30	
3831:3832: - Grand Hyatt San Antonio	24690	17089	69.2%	1825	2309	4134	24.2%	9990	41.4%	30	
3833 - Marriott Fairfield Inn & Suites	2970	1916	64.5%	968	0	968	50.5%	900	107.6%	30	
3834 - Marriott Spring Hill Suites	3540	2491	70.4%	1333	0	1333	53.5%	1650	80.8%	30	
3850 - Hotel Emma	4380	3208	73.2%	1115	0	1115	34.8%	1500	74.3%	30	
4157 - Omni San Francisco	10860	8733	80.4%	1185	0	1185	13.6%	900	131.7%	30	
4184:4267: - Westin Hotel Sfo	11910	10557	88.6%	487	2497	2984	28.3%	7770	38.4%	30	
4186 - Aloft Sfo	7560	6524	86.3%	0	1912	1912	29.3%	14340	13.3%	30	
4252 - Hotel Adagio	5130	4636	90.4%	597	41	638	13.8%	1170	54.5%	30	
4277:4278: - San Jose Double Tree	15150	11703	77.2%	720	3098	3818	32.6%	21150	18.1%	30	
4405 - Roosevelt Hotel New Orleans	15120	11594	76.7%	2494	0	2494	21.5%	5160	48.3%	30	
4409 - Hilton Garden Inn New Orleans Conv Ctr	8580	4423	51.6%	933	0	933	21.1%	3000	31.1%	30	
4410 - Old No 77 Hotel	5010	3651	72.9%	572	0	572	15.7%	6000	9.5%	30	
4411 - Hotel Indigo New Orleans	3960	2876	72.6%	885	0	885	30.8%	1590	55.7%	30	
4412 - Doubletree New Orleans	11010	8840	80.3%	2275	0	2275	25.7%	3000	75.8%	30	
4562 - Hyatt Regency Villa Christina	5310	3501	65.9%	257	0	257	7.3%	1500	17.1%	30	
4600 - Sofitel Washington Dc	7110	5642	79.4%	628	0	628	11.1%	420	149.5%	30	
4601 - Renaissance	9000	6979	77.5%	528	1160	1688	24.2%	16110	10.5%	30	
4602 - Residence Inn Arlington	9750	7817	80.2%	71	1555	1626	20.8%	16110	10.1%	30	
4611 - Omni Shoreham Dc	25020	17022	68.0%	2099	0	2099	12.3%	9000	23.3%	30	
4613 - Hyatt Place Arlington	5040	3481	69.1%	741	0	741	21.3%	2520	29.4%	30	
Total:	944190	680085	72.0%	102232	84737	186969	27.5%	642180	29.1%		

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Daily Drive in & Occupancy
For 12/01/2017
All Locations
Leased/Managed
Report Date 2/8/2018 11:31:30 AM

Date	Rooms Available #	Occupied #	Occupancy %	3am Cars Valet #	Self #	Total #	Drive in %	Stalls Available #	Occupancy %	# Days Entered	west coast
0160:0161: - Marriott La Jolla	11532	9365	81.2%	1034	3975	5009	53.5%	14260	35.1%	31	35.55%
0270:0461: - Wyndham San Diego Bayside	18600	12403	66.7%	556	3715	4271	34.4%	8990	47.5%	31	
0271 - US Grant Hotel Valet	8370	6515	77.8%	2752	0	2752	42.2%	6820	40.4%	31	
0316 - Marriott Vacation Club Pulse	8184	6643	81.2%	2054	936	2990	45.0%	1395	214.3%	31	
0328 - Westin San Diego	13516	9364	69.3%	1246	0	1246	13.3%	2015	61.8%	31	
0370:0371: - Marriott Marquis & Marina San Diego	42160	24806	58.8%	3929	5463	9392	37.9%	29946	31.4%	31	
0375 - Town & Country Convention	29388	6800	23.1%	0	4281	4281	63.0%	42625	10.0%	31	
0674:0675: - Westin Seattle Hotel	27621	16290	59.0%	2334	1224	3558	21.8%	7161	49.7%	31	
0678 - Sheraton Seattle Hotel - Valet	38998	17787	45.6%	3520	0	3520	19.8%	12400	28.4%	31	
1050 - Omni Hotel San Diego	15841	9045	57.1%	1768	0	1768	19.5%	6820	25.9%	31	
1076 - Marriott Gaslamp Quarter SD	9486	6565	69.2%	2242	0	2242	34.2%	6386	35.1%	31	
1159 - Hard Rock Hotel	13020	4899	37.6%	1486	0	1486	30.3%	5890	25.2%	31	
1167:1303: - Hyatt Regency La Jolla Valet	12927	10070	77.9%	1535	3203	4738	47.1%	9300	50.9%	31	
1180 - Hilton SD Bayfront Hotel	36890	32013	86.8%	1770	12311	14081	44.0%	27714	50.8%	31	
1189:1190: - Hilton La Jolla Torrey Pines	12214	8860	72.5%	776	4175	4951	55.9%	17360	28.5%	31	
1196 - The Keating Hotel	1085	0	0.0%	168	0	168	#DIV/0!	775	21.7%	31	
1207 - Indigo Hotel	6510	4733	72.7%	1266	0	1266	26.7%	2015	62.8%	31	
1241:1242: - Grand Hyatt San Diego	50468	34862	69.1%	3590	9584	13174	37.8%	36022	36.6%	31	
1244:1245: - Hyatt Regency Mission Bay	13299	9056	68.1%	1621	3674	5295	58.5%	3100	170.8%	31	
1324 - Lane Field North Garage	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	31	
1325 - Lane Field North Hotel	12400	9008	72.6%	801	4238	5039	55.9%	12834	39.3%	31	
1535 - San Diego Bayside Campus	11284	8530	75.6%	3297	0	3297	38.7%	5022	65.7%	31	
1539 - Pendry San Diego	9827	4850	49.4%	1688	0	1688	34.8%	3348	50.4%	31	
1543 - Hotel Republic	7998	4404	55.1%	1183	0	1183	26.9%	1860	63.6%	31	
1548 - Andaz San Diego	4929	3411	69.2%	868	0	868	25.4%	3100	28.0%	31	
1904 - Hotel Paseo	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
2073 - W La West Beverly Hills	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	1	
2085 - Hyatt Regency Huntington Beach Valet	16027	11495	71.7%	5610	1025	6635	57.7%	30690	21.6%	31	
2225:2226: - Crowne Plaza Redondo Beach Hotel	10726	8312	77.5%	654	2706	3360	40.4%	7967	42.2%	31	
2240 - Hampton Inn and Suites La/Santa Monica	4402	3577	81.3%	1165	0	1165	32.6%	3410	34.2%	31	
2241 - Courtyard Santa Monica	4216	3597	85.3%	1182	0	1182	32.9%	2573	45.9%	31	
2514 - Hyatt Regency Newport Beach Valet	12493	9237	73.9%	2201	0	2201	23.8%	5890	37.4%	31	
2515 - Hyatt Regency Newport Beach Self	12493	0	0.0%	1	3080	3081	#DIV/0!	10850	28.4%	31	
2539 - Waterfront Beach Resort Valet	8990	4937	54.9%	3738	0	3738	75.7%	10850	34.5%	31	
2613 - Pasea Hotel and Spa	7750	4403	56.8%	2957	0	2957	67.2%	11129	26.6%	31	
3000 - Hilton Oakland	11222	7710	68.7%	0	3268	3268	42.4%	15500	21.1%	31	
3016 - Oakland Marriott	15159	9217	60.8%	1617	0	1617	17.5%	1240	130.4%	31	
3110 - Sheraton Grand Sacramento	15593	9952	63.8%	2215	0	2215	22.3%	2790	79.4%	31	
3170 - Embassy Suites Hilton Portland	8556	6320	73.9%	1839	0	1839	29.1%	31000	5.9%	31	
3171 - Embassy Suites Hilton Portland Garage	8556	6327	73.9%	0	721	721	11.4%	9083	7.9%	31	
3183:3184: - Hotel Deluxe Portland	3968	2666	67.2%	714	237	951	35.7%	1550	61.4%	31	
3185 - Sentinel Hotel	3100	2277	73.5%	689	0	689	30.3%	1860	37.0%	31	
3186 - Hotel Lucia	3937	2545	64.6%	509	0	509	20.0%	1085	46.9%	31	
3187 - Hotel Dossier	6355	2789	43.9%	903	0	903	32.4%	2976	30.3%	31	
3216 - Fairmont Olympic Hotel Seattle	13950	10768	77.2%	3277	155	3432	31.9%	3410	100.6%	31	
3219 - The Arctic Club Seattle	3720	2524	67.8%	617	0	617	24.4%	1240	49.8%	31	
3252 - Hyatt Regency Bellevue	24397	11416	46.8%	1389	724	2113	18.5%	12214	17.3%	31	
3257 - Westin Bellevue	10509	6885	65.5%	1426	610	2036	29.6%	5239	38.9%	31	
3284 - Hilton Garden Inn Seattle	6882	4918	71.5%	1132	0	1132	23.0%	1550	73.0%	31	
3285 - W Bellevue	7595	3559	46.9%	735	212	947	26.6%	3100	30.5%	31	
3290 - W Seattle	13144	9311	70.8%	1691	0	1691	18.2%	2604	64.9%	31	
3296 - Residence Inn Seattle Downtown	9362	1740	18.6%	644	0	644	37.0%	3689	17.5%	31	
3452 - Hyatt Regency Phoenix	21483	13103	61.0%	1112	1637	2749	21.0%	4650	59.1%	31	
3465:3466: - The Phoenician	20150	10598	52.6%	1452	2233	3685	34.8%	18600	19.8%	31	
3598 - The Stoneleigh	5425	3187	58.7%	1447	0	1447	45.4%	4650	31.1%	31	
3604 - St Regis Hotel	7192	4581	63.7%	1990	0	1990	43.4%	5425	36.7%	31	
3606:3619: - Woodlands Marriott	10633	5582	52.5%	1143	1726	2869	51.4%	3100	92.5%	31	
3621:3622: - Hilton Houston Post Oak	13888	7133	51.4%	1415	2500	3915	54.9%	10106	38.7%	31	
3634 - Embassy Suites Hilton Houston	8122	2652	32.7%	2041	2043	4084	154.0%	2170	188.2%	31	
3654 - Hampton Inn and Homewood Suites Houston	9300	4991	53.7%	1645	0	1645	33.0%	4526	36.3%	31	
3823 - Marriott Courtyard Sa	6820	5145	75.4%	2421	0	2421	47.1%	3875	62.5%	31	
3831:3832: - Grand Hyatt San Antonio	25513	14243	55.8%	2556	2298	4854	34.1%	10323	47.0%	31	
3833 - Marriott Fairfield Inn & Suites	3069	1791	58.4%	919	0	919	51.3%	930	98.8%	31	
3834 - Marriott Spring Hill Suites	3658	2769	75.7%	1595	0	1595	57.6%	1705	93.5%	31	
3850 - Hotel Emma	4526	2943	65.0%	1322	0	1322	44.9%	1550	85.3%	31	
4157 - Omni San Francisco	11222	8929	79.6%	1723	0	1723	19.3%	930	185.3%	31	
4184:4267: - Westin Hotel Sfo	12307	10438	84.8%	442	2860	3302	31.6%	8029	41.1%	31	
4186 - Aloft Sfo	7812	6063	77.6%	0	1994	1994	32.9%	14818	13.5%	31	
4252 - Hotel Adagio	5301	4618	87.1%	805	27	832	18.0%	1209	68.8%	31	
4277:4278: - San Jose Double Tree	15655	10441	66.7%	609	2689	3298	31.6%	21855	15.1%	31	
4291 - Hotel Nia	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
4405 - Roosevelt Hotel New Orleans	15624	13205	84.5%	4784	0	4784	36.2%	5332	89.7%	31	
4409 - Hilton Garden Inn New Orleans Conv Ctr	8866	5986	67.5%	1251	0	1251	20.9%	3100	40.4%	31	
4410 - Old No 77 Hotel	5177	3875	74.9%	756	0	756	19.5%	6200	12.2%	31	
4411 - Hotel Indigo New Orleans	4092	2514	61.4%	760	0	760	30.2%	1643	46.3%	31	
4412 - Doubletree New Orleans	11377	8130	71.5%	3246	0	3246	39.9%	3100	104.7%	31	
4562 - Hyatt Regency Villa Christina	5487	3425	62.4%	253	0	253	7.4%	1550	16.3%	31	
4600 - Sofitel Washington Dc	7347	4715	64.2%	672	0	672	14.3%	434	154.8%	31	
4601 - Renaissance	9300	5170	55.6%	497	1016	1513	29.3%	16647	9.1%	31	
4602 - Residence Inn Arlington	10075	5904	58.6%	59	1335	1394	23.6%	16647	8.4%	31	
4611 - Omni Shoreham Dc	25854	10419	40.3%	2473	0	2473	23.7%	9300	26.6%	31	
4613 - Hyatt Place Arlington	5208	3033	58.2%	693	0	693	22.8%	2604	26.6%	31	
4616 - Westin Alexandria	0	0	#DIV/0!	0	0	0	#DIV/0!	0	#DIV/0!	0	
Total:	960132	592344	61.7%	118470	91875	210345	35.5%	635655	33.1%		

Appendix I – Hotel Parking Trends

FORTUNE

Yes, Uber Really Is Killing the Parking Business

By **DAVID Z. MORRIS** February 24, 2018

An email from the CEO of a national parking operator has added some detail to the impact ride-hailing services like Uber and Lyft are having on demand for parking. The picture, at least for those trying to rent you a parking spot, is bleak.

In the email, unearthed from a company report by the San Diego Union-Tribune, Ace Parking CEO John Baumgardner says that demand for parking at hotels in San Diego has dropped by 5 to 10%, while restaurant valet demand is down 25%. The biggest drop, unsurprisingly, has been at nightclubs, where demand for valet parking has dropped a whopping 50%.

The numbers appear to be estimates, and Baumgardner doesn't describe a timeframe for the declines. The assessment, written in September of last year, is also limited to San Diego, though an Ace Parking executive told the Union-Tribune that it has seen "similar" declines at its 750 parking operations around the United States. The company is focused on using technology, including better parking scheduling and booking options, to remain healthy.

Get Data Sheet, Fortune's technology newsletter.

But much more is at stake than the revenues of the parking business – cities stand to benefit immensely as demand for parking drops. Parking spaces and lots generate relatively little tax revenue or economic activity relative to commercial operations, and by increasing sprawl may actually harm the economy of cities like Los Angeles.

Even back in 2015, cities were already relaxing zoning requirements that set minimum parking allotments, and there are now even more signs that city planners are thinking differently about parking. Perhaps most dramatically, a new Major

League Soccer stadium being planned for David Beckham's Miami expansion team may include no new parking at all – but will have designated pickup zones for Uber and Lyft.

The decline of parking will only be accelerated if and when autonomous vehicles become widespread. That sea-change which will make it easier to locate parking at a distance from urban destinations, and could further reduce car ownership. That will be bad news for the Ace Parkings of the world – but everyone else should welcome the decline of the urban parking lot.

AMERICAN CITY&COUNTY®

Calculating your parking needs

American City and County
John Revell and Richard Rich
Tue, 2001-05-01 12:00

In the early 1990s, Spokane wanted to revitalize its downtown to attract more visitors and businesses. Planners hired consultants to evaluate the city's parking situation and to study the feasibility of expanding downtown parking.

Based on the consultants' recommendations, the city decided to expand a downtown parking structure by 75 percent. The non-profit Spokane Downtown Foundation sold $31 million in bonds to pay for the renovation, and the city guaranteed the bonds.

Spokane expected the parking structure to generate hundreds of thousands of dollars above cost each year, and it planned to deposit the money directly into city coffers. Instead, the garage failed to recoup the cost of the debt service.

When the Spokane Downtown Foundation asked the city for help, the city balked. The result was a huge legal, financial and political mess that led to the firing of the city manager and, eventually, to Moody's Investors Service downgrading the city's bond rating, a move that could end up costing the city millions of dollars on future bond issues.

What went wrong? There are several possible answers, but it appears that planners relied too heavily on national planning data in drawing usage conclusions and largely ignored factors such as local usage patterns and area parking prices. As a result, when the renovations were completed, the garage offered more parking spaces than were warranted and at too high a cost. Parkers stayed away from the garage, and the city is paying the price now.

Consult many sources

Parking planning can play a direct role in the success of a city's traffic management, the health of its businesses and the level of satisfaction experienced by residents and visitors. Poor parking planning can have disastrous results: Traffic can become gridlocked, urban businesses may have trouble competing with suburban companies, in-town residents can get fed up with searching for parking spaces every time they return home, and, in the worst cases, municipal credit ratings can suffer. Conversely, cities that can provide sufficient parking spaces will create satisfied residents and businesses.

Calculating where to locate parking spaces, how many spaces are needed, and how much to charge parkers is a complex process involving multiple variables. To determine the values of those variables, planners can draw on a number of resources.

Some national data is available that can provide a general idea of parking needs across the country. The Washington, D.C.-based Institute of Transportation Engineers (ITE) produces data that can prove invaluable as a starting point for parking planning. However, the ITE resources clearly state that the guidelines are based on limited samples, and they should not be considered the final word.

The most definitive research parking planners can conduct is on the local level. The first step in gaining a better understanding of parking needs is to break the city into zones. In many cases, those zones already exist as separate

entities, such as neighborhoods or business districts.

Once separate zones have been established, planners can collect information, including both empirical and scientific data. To gain the necessary information, planners can:

- *Survey business owners.* Business owners have a better understanding than anyone else of who their customers are and what their customers' parking needs are.

- *Evaluate local mass transit and determine how it affects parking needs.* It is not enough to know how many business customers or employees come into a particular section of the city each day; planners also must understand how they are getting there. Mass transit is intended to reduce the number of drivers, and planners must be able to quantify its impact on parking requirements.

- *Understand how climate affects parking needs.* Does the city have predominantly warm weather that permits shoppers and employees to walk to certain parts of town? Or does the city's frequent inclement weather force them to drive?

- *Evaluate the types of drivers.* Shoppers are more likely to be short-term parkers, while employees of local businesses are more likely to need long-term parking.

- *Evaluate usage times.* In areas where various businesses and organizations are located, parking can be shared. For instance, churches experience their greatest parking needs on weekends, while businesses need parking on weekdays. A partnership between the two could offer an opportunity to share parking facilities. As a result, fewer parking spaces are needed, and the city can save money.

- *Determine how much parkers are willing to pay.* There is no single formula for calculating how much patrons will be willing to pay for parking; circumstances and driver behavior differ from city to city. As a rule, planners should consider the elasticity of demand when pricing parking. Additionally, they must consider the difference between projecting prices for stand-alone structures and parking facilities that are part of a larger system.

Cities should not set prices with an eye towards filling municipal coffers. The goal should be for the parking structure or system to be self-sufficient. Any surpluses from parking operations should first be earmarked for a repair and replacement fund, even if such a fund is not mandated. Remaining surpluses should then be placed in a parking improvement fund.

Success in Charlottesville

Land Use	(1) Charlottesville Model	(2) Charlottesville Zoning	(3) Institute of Transportation Engineers
Office	3.20	3.33	2.79
Retail	2.61	10.00	3.97
Service	3.51	5.00	4.17
Restaurant	7.72	13.33	12.49
Residential (per unit)	1.70	1.00-10.00 (varies)	1.21
Mixed	3.77	2.00	3.25
Government	4.20	3.33	3.84

Land Use	(1) **Charlottesville Model**	(2) **Charlottesville Zoning**	(3) **Institute of Transportation Engineers**
Hotel (per room)	0.88	1.00	0.52
Light Industrial	0.63	N/A	0.36
Special 1 — Community Use	0.45	13.33	0.43
Personal/Medical Service	4.00	5.00	4.11

Planners studying Charlottesville's parking needs have relied on locally gathered data (1) to determine how many parking spaces are needed for different types of buildings. The data varies significantly from the data provided by the Charlottesville Zoning Ordinance (2) and the Institute of Transportation Engineers Parking Manual (3). Calculations are based on 1,000 square feet of gross floor area. For example, a 10,000-square-foot office building with a ratio of 3.2 needs 32 parking spaces.

In stark contrast to Spokane, Charlottesville, Va., relied heavily on locally gathered data to design a new parking structure downtown. In 1993, the city hired a parking planning firm to conduct a parking study specific to one site. The study examined the parking requirements of the downtown area to determine how much parking was needed and what type of parking structure would be most successful.

The Charlottesville study hinged on two key factors: past parking demand within the city and local economic analysis. The study included analysis of existing data in conjunction with interviews of area business owners and civic leaders.

Based on the findings of the study, the planners developed demand and revenue projections that greatly enhanced the prospect of success for the new structure. The results of the study led planners to develop a 624-car, mixed-use parking structure featuring retail and office space.

The development and subsequent operation of the mixed-use parking structure has been so successful that Charlottesville has undertaken a comprehensive parking demand analysis for the entire city. The study, which is currently under way, includes the analysis of approximately 100 blocks of the downtown area, and it is examining the likely impact of new parking areas in sustaining economic growth and the vitality of downtown Charlottesville. When the study is completed, planners will be able to recommend sites for future parking facilities and provide guidelines for the development of new garages.

As Charlottesville shows, municipal planners can avoid parking problems by carefully studying all aspects of the city's parking needs. Relying on cookie-cutter solutions can create repercussions as extreme as lowering a municipal bond rating or causing a city to default on debt. Parking plans must reflect a municipality's distinct characteristics and requirements.

John Revell is a parking planner for Southfield, Mich.-based Rich & Associates, and Richard Rich is the firm's director of parking planning.

Source URL: http://americancityandcounty.com/mag/government_calculating_parking_needs

Ontario town's experiment using Uber as public transportation is working, officials say

Innisfil – located just south of Barrie and home to about 36,000 people — has paid $26,462.41, or an average of $5.43 per trip, for 4,868 Uber rides taken in the two months since launching the unique-to-Canada project on May 15

ALICJA SIEKIERSKA

August 8, 2017
5:18 PM EDT

Filed under
Transportation

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The town of Innisfil, Ont. is hailing its two-mo
subsidize Uber as the lone form of public tran
nearly 5,000 trips taken since the pilot projec

Innisfil — located just south of Barrie and hor
people — has paid $26,462.41, or an averag
4,868 Uber rides taken in the two months sin
unique-to-Canada project on May 15.

"We are really pleased we did go this route,"
a senior policy advisor with the town.

"This partnership with Uber had definitely pro
cost effective for us, being able to provide thi
residents. You don't need to be within walkin
or a bus route, so it's something that works fc

Last summer, Innisfil's city council was at a c

additional transportation options across the s

declared a key priority in the community's str

found that a fixed-route bus service would be

tag of $270,000 per year for one bus, and $6

Instead, the town decided to partner with glol

Uber to launch a partnership to provide on-de

Innisfil residents that is partially subsidized b

Passengers pay between $3 and $5 for set r

such as to Town Hall and the GO train statior

for all other rides within town.

Pentikainen and Tim Cane, Innisfil's manage

will provide city council with a two-month upd

on Wednesday.

So far, demand is keeping pace with the budg

Innisfil's council committed $100,000 for the f

and an additional $125,000 next year.

There are certain times where meeting dema

but according to Uber people have been able

time," Pentikainen said.

"As a 24/7 service, we're quite pleased," Pen

that using Uber as an on-demand public tran

the best option for the town for the foreseeab

"With our large geography, the distance betw

bus routes to provide the same level of servi

expensive," he said. "Maybe decades into the

much higher population we may look at other

right now this is working for us."

Pentikainen added that, in the short term, the

to tweak the service to make it more efficient

users, as well as surveying residents about tl

Uber spokesperson Susie Heath said the ride

pleased with the results of the report that was

will be presented on Wednesday.

"Since we launched this exciting public transi

has been great to see Innisfil residents acces

demand rides to get around their community

transit hubs," Heath said in an emailed stater

"We look forward to continued dialogue with

transit authorities across Canada to explore s

The past several months have proven to be a

ride sharing company. In June, chief executiv

resigned after a lengthy investigation that wa

former engineer publicly accused the compar

and discrimination. The report, conducted by

General Eric Holder, had many recommenda

Kalanick's authority should be reduced.

EMPTY SPACES: REAL PARKING NEEDS AT FIVE TODS

The land near transit stations is a valuable commodity. Hundreds or thousands of people travel to and through these places each day, and decisions about what to do with this land have implications for local economies, transit ridership, residents' access to opportunity, and overall quality of life for everyone in a community.

Many communities choose to dedicate at least some of that land for parking. The question is, how much? Too little parking could discourage people from coming to the station, but too much parking is unnecessarily expensive and gets in the way of other uses like homes, shops, or offices. How much parking should transportation engineers build?

To answer that question, many engineers and planners consult the Institute of Transportation Engineers' (ITE) Trip Generation and Parking Generation guides. These publications represent data collected from mostly isolated suburban land uses—not walkable, urban places served by transit. There are few alternative guidelines for engineers building this other type of development, however, so despite these shortcomings many planners continue to use ITE's publications.

The goal of this study was to determine how much less parking is required at transit-oriented developments (TODs) and how many fewer vehicle trips are generated than standard industry estimates. It is clear that TODs require less parking than development without transit, or transit without development. This study sought to gather information about how much parking is used at TOD to help developers and engineers make more-informed decisions in the future.

To do that, Professor Reid Ewing and his research team at the University of Utah College of Architecture + Planning selected five TODs across the country, each with a slightly different approach to development and parking: Englewood, CO in the Denver region; Wilshire/Vermont station in Los Angeles, CA; Fruitvale Transit Village in Oakland, CA; the Redmond, WA station in the Seattle region; and Rhode Island Row in Washington, DC. The research team together with two transportation consulting firms, Fehr & Peers Associates and Nelson\Nygaard Consulting Associates, counted all persons entering and exiting the TOD buildings, and conducted brief intercept surveys of a sample of them. Researchers also conducted parking inventory and occupancy counts.

Consistent with other research, this study found that the five TODs generated fewer vehicle trips than ITE publications estimate, and used less parking than many regulations require for similar land uses. And in one case, actual vehicle trips were just one third of what ITE guidelines estimate.

The TODs included in this study also built less parking than recommended by ITE. Yet even this reduced amount of parking was not used to capacity: the ratio of demand to actual supply was between 58 and 84 percent. Fewer vehicle trips is one likely reason why parking occupancy rates were lower than expected. Another possible reason is that ITE's data do not fully account for other travel modes that are available and actively encouraged at TODs. In each of the five TODs studied, at least 33 percent of trips were taken by modes other than driving. Additional reasons for low parking rates is that parking is shared between commercial and residential uses at two TODs, is shared between transit and park-and-ride uses at one TOD, is unbundled with apartment rents at two TODs, and is priced at market rates for commercial users at three TODs.

These findings underscore the obvious need for developers, regulators, and practitioners to rethink how they use parking guidelines intended for suburban development not served by transit. Current engineering standards are not designed to accommodate this type of development but in time we hope studies like this can help change that. Better aligning industry standards with current needs can reduce the cost of development near transit, and make it easier to build more homes, shops, and offices in these high-demand locations.

Home Page / News / Scottsdale offers ride-share discounts to visitors

Scottsdale offers ride-share discounts to visitors

By Jennifer Banks, Public Information Officer, 480-312-7517

January 24, 2018

Just in time for the busy tourism season, Scottsdale has created an innovative, low-cost solution that will help travelers journey throughout the city with ease.

Scottsdale has partnered with ride-share companies Uber, Lyft and SuperShuttle/ExecuCar to offer discounted rates to visiting travelers during a trial program. Starting this month, these ride-share companies will promote a Scottsdale-specific discount code to their customers. When visitors pay for their ride-share vehicles, they will use the provided code to reduce their fares on eligible trips between a Scottsdale hotel and Phoenix Sky Harbor International Airport, and trips within Scottsdale's borders.

Transportation is one of the most important factors meeting planners evaluate when considering sites for destination events, conventions and conferences. According to consumer research, travelers believe Scottsdale provides fewer tourist transportation options than competitive destinations including Palm Springs, Austin, San Diego, Las Vegas, Miami, Santa Fe, San Antonio and Phoenix.

Scottsdale launched the trial program in response to perceptions concerning Scottsdale's lack of transportation options, as well as to gain data regarding visitor needs and to consider long-term solutions.

"Visitors want to move easily throughout our community. With this new program, Scottsdale is rolling out the red carpet for them," said Experience Scottsdale President & CEO Rachel Sacco. "Our hope is that when visitors return home, they look back fondly on their Scottsdale visit – including how easy it was to get to Scottsdale and explore the community."

Scottsdale Transportation Director Paul Basha believes that a targeted ride share program offers a better use of tax dollars than other transportation options.

"The city investigated several options, such as scheduled trolley service and rental car shuttles, for providing direct connection between Scottsdale hotels and Phoenix Sky Harbor International Airport," said Basha. "However, these generalized service concepts were dismissed as too expensive. A service focused specifically on visitors and tourist destinations using hotel bed tax revenue made the most sense economically."

The program provides convenient, quick, and direct travel between Sky Harbor and Scottsdale. And by promoting point-to-point ride-share services, the program has the potential to alleviate parking issues in downtown Scottsdale and at major Scottsdale events.

In December, the Scottsdale City Council approved the use of visitor-generated bed-tax dollars from the Tourism Development Fund to reimburse Uber, Lyft and SuperShuttle/ExecuCar for the program. Visitors can access the discount code via promotions from the participating ride-share companies beginning Jan. 25, 2018. The code will deduct up to $10 for users with a non-metropolitan Phoenix address for a maximum of two eligible trips. Eligible trips include travel to and from Phoenix Sky Harbor International Airport and a Scottsdale hotel, or between two locations within Scottsdale's borders, such as from a Scottsdale hotel to a Scottsdale restaurant or store.

Newsroom

Turo opens new Scottsdale offices with official ceremony

May 15, 2018

Scottsdale, Arizona, May 17, 2018 - Pioneering peer-to-peer car sharer Turo announces today the official opening of its Scottsdale, Arizona offices. To celebrate the milestone, Turo has planned an official ribbon cutting at its new location.

The ribbon cutting will occur from 6:30 to 8:30 PM at the new offices, which are located at 4110 N. Scottsdale Road. Opening remarks will be given by Michelle Peacock, Vice President and Head of Government Relations at Turo.

"Innovation and technology are key drivers in Scottsdale's economic growth and we are excited to see Turo at the forefront of peer-to-peer car sharing. Their decision to expand operations and make an additional investment is a testament to the positive business environment we have created in Scottsdale," said Mayor W.J. "Jim" Lane.

Representatives from Turo include Alex Benn, President; Andrew Mok, Chief Marketing Officer; Michelle Peacock, Vice President and Head of Government Relations; Tristam Hewitt, Head of CS and Claims; Steve Webb, Senior Director of Communications & Community; Tyler Hamilton, Facilities Manager and Chris Witmer, Community Manager.

The Turo event will also include some fun added bonuses. Guests and employees will enjoy drink trucks, a GIFbooth, a DJ and free Turo merchandise.

Turo operated from a DeskHub in Scottsdale, beginning in February 2018. Turo chose Scottsdale for its first expansion site outside of San Francisco because of the region's existing talent and to bolster its success in one of its biggest markets.

Turo, founded in 2009 and headquartered in San Francisco, has grown to operate in over 5,500 cities in North America and has safely facilitated over 1 million rental days to date. The average active US member makes USD $625 per month renting out a car in the marketplace.

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About Turo

Turo is a car sharing marketplace where local car owners provide travelers with the perfect vehicle for their next adventure. Across the country or across town, travelers choose from a unique selection of nearby cars, while car owners earn extra money and help fuel the adventures of travelers from around the world. A pioneer of the sharing economy and travel industry, Turo is a safe, supportive community where the car you book is part of a story, not a fleet. Whether it's

FEATURED DATA
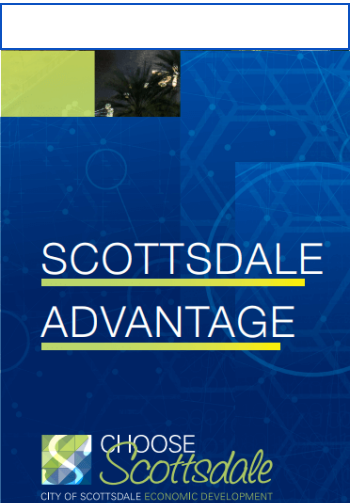
SEE ALL DATA & REPORTS

About the City of Scottsdale

Scottsdale is one of the state's leading job centers, with a diverse economy built on medical research, high-tech innovation, tourism and corporate headquarters. Scottsdale is home to nearly 18,000 businesses supplying over 150,000 jobs. The high-tech innovation center SkySong, located just a few miles from Downtown, is designed to help companies grow through a unique partnership with nearby Arizona State University. The Scottsdale Cure Corridor is a partnership of premier health care providers and biomedical companies seeking to advance medicine and patient care through cutting-edge research. For more information, visit ChooseScottsdale.com.

Appendix J – City of Scottsdale Code of Ordinances

J

ARTICLE IX. - PARKING AND LOADING REQUIREMENTS

Sec. 9.100. - Parking.

Sec. 9.101. - Purpose and scope.

The purpose of preparing and adopting the parking regulations within this Zoning Ordinance is to implement the goals of the City of Scottsdale as they are set forth by the city's General Plan and further refined here. These regulations are to provide adequate parking within the community without sacrificing urban design which enhances the aesthetic environment, encourage the use of various modes of transportation other than the private vehicle and provides a generally pleasant environment within the community. Several purposes are identified herein to achieve the above stated purpose.

The purposes of the parking ordinances of the City of Scottsdale are to:

1. Provide parking facilities which serve the goal of a comprehensive circulation system throughout the community;
2. Provide parking, city-wide that will improve pedestrian circulation, reduce traffic congestion, and improve the character and functionality of all developments;
3. Promote the free flow of traffic in the streets;
4. Encourage the use of bicycles and other alternative transportation modes;
5. Design and situate parking facilities so as to ensure their usefulness;
6. Provide an adequate number of on-site bicycle parking facilities, each with a level of security, convenience, safety, access, and durability;
7. Provide for adequate parking at transfer centers and selected transit stops in order to encourage the use of mass transit;
8. Ensure the appropriate development of parking areas throughout the city; and
9. Mitigate potential adverse impacts upon land uses adjacent to parking facilities.

(Ord. No. 2736, § 1, 3-7-95; Ord. No. 3896, § 1(Exh. § 6), 6-8-10; Ord. No. 3980, § 1(Res. 8895, § 1, Exh. A, § 44), 12-6-11; Ord. No. 4143, § 1(Res. No. 9678, Exh. A, § 244), 5-6-14)

Editor's note— Ord. No. 2736, § 1, adopted Mar. 7, 1995, did not specifically repeal §§ 9.100—9.104, which pertained to off-street parking; hence, §§ 9.100—9.108 adopted in said ordinance have been treated as superseding former §§ 9.100—9.104.

Sec. 9.102. - Applications of and exemptions from parking.

A. *Additions and change of occupancy.* The standards for providing on-site parking shall apply at the time of the erection of any main building or when on-site parking is established. These standards shall also be complied with when an existing building is altered or enlarged by the addition of dwelling units or guest rooms or where the use is intensified by a change of occupancy or by the addition of floor area, seating capacity, or seats.

B. *Required parking must be maintained.* Required on-site parking spaces shall be maintained so long as the main building or use remains.

C. *Nonconforming parking.* Where vehicle parking space is provided and maintained in connection with a main building or use at the time this ordinance became effective and is insufficient to meet the requirements for the use with which it is associated, or where no such parking has been provided, then said building or structure may be enlarged or extended only if vehicle parking spaces are provided for said enlargement, extension or addition, to the standards set forth in the district regulations. No existing parking may be counted as meeting this requirement unless it exceeds the requirements for the original building and then only that excess portion may be counted.

Any commercial property which provides sufficient parking spaces to supply at least fifty (50) percent of the requirement for the property and which is destroyed by fire, hurricane, flood, or other act of God, may be restored to its original use and building outline, provided the floor area is not increased, without conforming to the parking requirements of this ordinance.

D. *Building permits.* No building permit shall be issued until parking requirements have been satisfied. Off-street parking required by this Zoning Ordinance shall not be located within the right-of-way of a street or alley.

E. *Counting flexible units.* Whenever a residential building is designed so that it can be used for separate apartments or guest rooms under the City of Scottsdale Building Code, the vehicle parking requirements shall be based upon the highest possible number of dwelling units or guest rooms obtainable from any such arrangement.

F. *Application to multiple tenant developments.* Where there is a combination of uses, the minimum required number of on-site parking spaces shall be the sum of the requirements of the individual uses, unless otherwise considered a mixed use development, mixed use commercial center, or as provided per Section 9.104.E. and F. If, in the opinion of the Zoning Administrator, the uses would not be operated simultaneously, the number of vehicle parking spaces shall be determined by the use with the highest parking demand.

G. *Free parking in the Downtown Area.* Required parking for developments within the Downtown Area shall be provided at no cost to the patrons, employees, residents, or their guests of the development. If the required parking of a development, which the required parking is on the same site as the development, is only available through the use of a valet services, the valet service shall be provided at no cost to the user.

H. *Prohibited uses of parking areas.*

   1. Parking of more than 5 vehicles on any unimproved lot is prohibited, except when used for special events parking. An improved lot shall mean 1 that fulfills the requirements of Section 9.103.

   2. Parking or display of vehicles other than in designated and improved areas shall be prohibited.

   3. Required parking spaces shall not be used for product display or advertising.

(Ord. No. 2736, § 1, 3-7-95; Ord. No. 3896, § 1(Exh. § 6), 6-8-10; Ord. No. 3920, § 1(Exh. § 103), 11-9-10; Ord. No. 3980, § 1(Res. 8895, § 1, Exh. A, § 45), 12-6-11; Ord. No. 4117, § 1(Res. No. 9563, Exh. A, § 95), 11-19-13; Ord. No. 4143, § 1(Res. No. 9678, Exh. A, § 245), 5-6-14; Ord. No. 4265, § 1, 6-21-16)

Sec. 9.103. - Parking requirements.

A. *General requirement.* Except as provided in Sections 9.103.B, 9.104, 9.107, and 9.108, and subsections therein, each use of land shall provide the number of parking spaces indicated for that use in Table 9.103.A. and Section 9.105.

B. *Requirement in the Downtown Area.* Except as provided in Sections 9.104, 9.107, and 9.108, and subsections therein each use of land in the Downtown Area shall provide the number of parking spaces indicated for that use in Table 9.103.b. and Section 9.105. Those uses that are not specifically listed in Table 9.103.B. shall provide the number of parking spaces indicated for that use in Table 9.103.A.

C. *Required bicycle parking.* Every principal and accessory use of land which is required to provide at least forty (40) vehicular parking spaces shall be required to provide bicycle parking spaces at a rate of one (1) bicycle parking space per every ten (10) required vehicular parking spaces; and after July 9, 2010, new development shall provide, at a minimum, two (2) bicycle parking spaces. No use shall be required to provide more than one hundred (100) bicycle parking spaces.

   1. Subject to the approval of the Zoning Administrator, in the Downtown Area, bicycle parking spaces may be provided within a common location that is obvious and convenient for the bicyclist, does not encroach into adjacent pedestrian pathways or landscape areas, and the location shall be open to view for natural surveillance by pedestrians. Such common bicycle parking areas shall be subject to the approval of the Zoning Administrator.

D. *Bicycle parking facilities design.* Required bicycle parking facilities shall, at a minimum, provide a stationary object to which the bicyclist can lock the bicycle frame and both wheels with a user provided U-shaped lock or cable and lock. The stationary object shall generally conform to the Design Standards & Policies Manual. The Zoning Administrator may

approve alternative designs. Bicycle lockers and other high security bicycle parking facilities, if provided, may be granted parking credits pursuant to Section 9.104.C., Credit for bicycle parking facilities.

E. *Calculating required parking for transportation facilities.* Required parking for park and ride lots and major transfer centers shall be determined by the Zoning Administrator. Subject to the Design Standards & Policies Manual and the following criteria:

1. Goals of the City with regard to transit ridership along the route on which the transportation facility is located.

2. Distance from other transportation facilities with parking.

F. *Fractions shall be rounded.*

1. When any calculation for the required parking results in a fraction of a parking space, the fraction shall be rounded up to the next greater whole number.

2. When any calculation for the provided parking results in a fraction of a parking space, the fraction shall be rounded down to the next greater whole number.

3. When any calculation of a Parking P-3 District credit, improvement district credit, or in-lieu parking credit results in a fraction of a credit, the fraction shall not be rounded.

G. *Interpreting requirements for analogous uses.* The Zoning Administrator shall determine the number of spaces required for analogous uses. In making this determination, the Zoning Administrator shall consider the following:

1. The number of parking spaces required for a use listed in Table 9.103.A., or Table 9.103.B., that is similar to the proposed use;

2. An appropriate variable by which to calculate parking for the proposed use; for example, building square footage or number of employees;

3. Parking data from the same use on a different site or from a similar use on a similar site;

4. Parking data from professional publications such as those published by the Institute of Transportation Engineers (ITE) or the Urban Land Institute (ULI);

H. *Additional requirements for company vehicles.* When parking spaces are used for the storage of vehicles or equipment used for delivery, service and repair, or other such use, such parking spaces shall be provided in addition to those otherwise required by this Zoning Ordinance. Before a building permit is issued the number of spaces to be used for vehicle storage shall be shown on the plans. Unless additional spaces are provided in excess of the required number of spaces, no vehicles in addition to that number shall be stored on the site.

____

Table 9.103.A. Schedule of Parking Requirements	
Amusement parks	Three (3) spaces per hole for any miniature golf course, plus one (1) space per three thousand (3,000) square feet of outdoor active recreation space, plus any additional spaces required for ancillary uses such as but not limited to game centers and pool halls.
Arts festivals, seasonal	A. One (1) space for each two hundred (200) square feet of indoor public floor area, other than public restaurant space. B. Restaurant at seasonal arts festivals shall be provided parking in accordance with table 9.103.a.

Banks/financial institutions	One (1) space per two hundred fifty (250) square feet gross floor area.
Bars, cocktail lounges, taverns, afterhours or micro-brewery/distillery with live entertainment	A. One (1) space per sixty (60) square feet of gross floor area; and B. One (1) space per two hundred (200) gross square feet of outdoor patio area, excluding the first two hundred (200) gross square feet.
Bars, cocktail lounges, taverns, afterhours or micro-brewery/distillery	A. One (1) space per eighty (80) square feet of gross floor area; and B. One (1) space per two hundred (200) gross square feet of outdoor patio area, excluding the first two hundred (200) gross square feet.
Boardinghouses, lodging houses, and other such uses	One (1) parking space for each one (1) guest room or dwelling unit.
Bowling alleys	Four (4) parking spaces for each lane, plus two (2) parking spaces for any pool table, plus one (1) parking space for every five (5) audience seats.
Carwash	Four (4) spaces per bay or stall plus one (1) space per employee plus ten (10) stacking spaces.
Churches and places of worship	A. With fixed seating. One (1) space per four (4) seats in main sanctuary, or auditorium, and c below; or B. Without fixed seating. One (1) space for each thirty (30) square feet of gross floor area in main sanctuary and c below. C. One (1) space per each three hundred (300) square feet gross floor area of classrooms and other meeting areas.
Club/lodge, civic and social organizations	One (1) space per two hundred fifty (250) square feet gross floor area.
College/university	One (1) space per two (2) employees plus one (1) space per four (4) students, based on projected maximum enrollment.
Community or recreation buildings	One (1) parking space for each two hundred (200) square feet of gross floor area.

Conference and meeting facilities, or similar facilities	A. One (1) parking space for every five (5) seats, if seats are fixed, and/or B. One (1) parking space for fifty (50) square feet of gross floor area of conference/meeting area.
Cultural institutions and museums	One (1) space per three hundred (300) square feet gross floor area.
Dance halls, skating rinks, and similar indoor recreational uses	One (1) parking space for each three hundred (300) square feet of gross floor area in the building.
Dance/music/and professional schools	One (1) space per two hundred (200) square feet of gross floor area classroom area.
Day care center	One (1) parking space for each employee; plus one (1) space for every fifteen (15) students, plus one (1) space for each company vehicle as per Section 9.103.H., additional requirements for company vehicles.
Dry cleaners	One (1) space per two hundred fifty (250) square feet gross floor area.
Dwellings, multiple-family	Parking spaces per dwelling unit at the rate of: efficiency units 1.25 one-bedroom 1.3 two-bedrooms 1.7 three (3) or more bedrooms 1.9
Dwellings, single- and two-family and townhouses	Two (2) spaces per unit.
Elementary schools	One (1) parking space for each classroom plus one (1) parking space for each two hundred (200) square feet of gross floor area in office areas.
Funeral homes and funeral services	A. One (1) parking space for every two (2) permanent seats provided in the main auditorium; and B. One (1) parking space for every thirty (30) square feet of gross floor area public assembly area.

Furniture, home improvement, and appliance stores	A. Uses up to fifteen thousand (15,000) square feet of gross floor area. One (1)space per five hundred (500) square feet gross floor area; or B. Uses over fifteen thousand (15,000) square feet of gross floor area. One (1) space per five hundred (500) square feet for the first fifteen thousand (15,000) square feet of gross floor area, and one (1) space per eight hundred (800) square feet area over the first fifteen thousand (15,000) square feet of gross floor area
Galleries	One (1) space per five hundred (500) square feet of gross floor area.
Game centers	One (1) space per one hundred (100) square feet gross floor area.
Gas station	Three (3) spaces per service bay and one (1) space per 250 square feet of accessory retail sales gross floor area. Each service bay counts for one (1) of the required parking spaces.
Golf course	One (1) parking space for each two hundred (200) square feet of gross floor area in any main building plus one (1) space for every two (2) practice tees in the driving range, plus four (4) parking spaces for each green in the playing area.
Grocery or supermarket	One (1) space per three hundred (300) square feet gross floor area.
Health or fitness studio, and indoor recreational uses	A. Building area less than, or equal to, 3,000 square feet of gross floor area: one space per 250 square feet of gross floor area. B. Building area greater than 3,000 square feet of gross floor area, and less than 10,000 square feet of gross floor area: one space per 150 square feet of gross floor area. C. Building areas equal to, or greater than, 10,000 square feet of gross floor area, and less than 20,000 square feet of gross floor area: one space per 200 square feet of gross floor area. D. Building areas equal to, or greater than, 20,000 square feet of gross floor area: one space per 250 square feet of gross floor area.

High schools	One (1) parking space for each employee plus one (1) space for every six (6) students, based on projected maximum enrollment.
Hospitals	One and one half (1.5) parking spaces for each one (1) bed.
Internalized community storage	One (1) parking space for each two thousand five hundred (2,500) square feet of gross floor area.
Library	One (1) space per three hundred (300) square feet gross floor area.
Live entertainment (not including bars, restaurants, and performing arts theaters)	A. With fixed seating. One (1) parking space for two and one-half (2.5) seats. B. Without fixed seating. One (1) parking space for every sixty (60) square feet of gross floor area of an establishment that does not contain fixed seating.
Manufactured home park	One and one-half parking spaces per manufactured home space.
Manufacturing and industrial uses	One (1) parking space for each five hundred (500) square feet of gross floor area.
Mixed-use commercial centers In mixed-use commercial centers with less than 20,000 square feet of gross floor area, land uses (with parking requirements of one space per 250 square feet or fewer spaces) shall occupy at least 60 percent of gross floor area.	One (1) space per three hundred (300) square feet of gross floor area.
Mixed-use developments	A. One (1) space per three hundred twenty-five (325) square feet of gross floor area of nonresidential area; B. Multiple-family residential uses shall be parked at the ratios of the dwellings, multiple-family in other districts requirements, herein.
Office, all other	One (1) space per three hundred (300) square feet gross floor area.
Offices (government, medical/dental and clinics)	One (1) space per two hundred fifty (250) square feet of gross floor area.

Parks	Three (3) parking spaces for each acre of park area.
Personal care services	One (1) space per two hundred fifty (250) square feet gross floor area.
Plant nurseries, building materials yards, equipment rental or sales yards and similar uses	One (1) parking space for each three hundred (300) square feet gross site area of sales and display area.
Pool hall	Two (2) spaces per pool table.
Postal station(s)	One (1) parking space for each two hundred (200) square feet of gross floor area.
Radio/TV/studio	One (1) space per five hundred (500) square feet gross floor area, plus one (1) space per company vehicle, as per Section 9.103.H., additional requirements for company vehicles.
Ranches	One (1) space per every two (2) horse stalls.
Residential health care facilities	A. Specialized care facilities—0.7 parking space for each bed. B. Minimal care facilities—1.25 parking spaces for each dwelling unit.
Restaurants with live entertainment	A. When live entertainment limited to the hours that a full menu is available, and the area of live entertainment is less than fifteen (15) percent of the gross floor area, one (1) parking space per one hundred twenty (120) square feet of gross floor area; and B. One (1) parking space for each three hundred fifty (350) gross square feet of outdoor public floor area, excluding the first three hundred fifty (350) gross square feet of outdoor patio area, unless the space is located next to and oriented toward a publicly owned walkway or street, in which case the first five hundred (500) gross square feet of outdoor patio area is excluded. C. When live entertainment is not limited to the hours that a full menu is available, and/or the area of live entertainment is less than fifteen (15) percent of the gross floor area, one (1) parking space per sixty (60) square feet of gross floor area, plus patio requirements above.

Restaurants	A. One (1) parking space per one hundred twenty (120) square feet of gross floor area; and B. One (1) parking space for each three hundred fifty (350) gross square feet of outdoor patio area, excluding the first three hundred fifty (350) gross square feet of outdoor patio area, unless the space is located next to and oriented toward a publicly owned walkway or street, in which case the first five hundred (500) square gross feet of outdoor patio area is excluded.
Retail	One (1) space per two hundred fifty (250) square feet of gross floor area.
Retail, in a PCoC zoning district without arterial street frontage	One (1) space per three hundred (300) square feet gross floor area.
Stables, commercial	Adequate parking for daily activities shall be provided as determined by the Zoning Administrator.
Swimming pool or natatorium	One (1) space per one thousand (1,000) square feet gross floor area.
Tennis clubs	One (1) parking space per each two hundred (200) square feet of gross floor area, excluding court area, plus three (3) parking spaces per each court. The property owner shall provide additional parking spaces as necessary for tournaments, shows or special events.
Theaters, cinemas, auditoriums, gymnasiums and similar places of public assembly in PNC, PCC, PCP, PRC, or PUD zoning districts	One (1) space per ten (10) seats.
Theaters, cinemas, auditoriums, gymnasiums and similar places of public assembly in other districts	One (1) parking space per four (4) seats.
Trailhead - gateway	Five hundred (500) to six hundred (600) spaces, including those for tour buses and horse trailers.
Trailhead - local	None required.
Trailhead - major community	Two hundred (200) to three hundred (300) spaces, including those for horse trailers.
Trailhead - minor community	Fifty (50) to one hundred (100) spaces.

Transportation facilities	Required parking shall be determined by the Zoning Administrator per Section 9.103.E., Calculating required parking for transportation facilities.
Transportation uses	Parking spaces required shall be determined by the Zoning Administrator.
Travel accommodations	One (1.25) parking spaces for each one (1) guest room or dwelling unit.
Travel accommodations with conference and meeting facilities, or similar facilities	The travel accommodation requirements above. A. Travel accommodations with auxiliary commercial uses (free standing buildings) requirements above. B. One (1) parking space for every five (5) seats, if seats are fixed, and/or C. One (1) parking space for fifty (50) square feet of gross floor area of conference/meeting area.
Travel accommodations, with auxiliary commercial uses (free standing buildings)	A. The travel accommodation requirements above. B. Bar, cocktail lounge, tavern, after hours, restaurants, and live entertainment uses shall provide parking in accordance uses parking requirements herein this table. C. All other free standing commercial uses. One (1) parking space for every four hundred (400) square feet of gross floor area.
Vehicle leasing, rental, or sales (parking plans submitted for vehicle sales shall illustrate the parking spaces allocated for each of A, B, and C.)	A. One employee parking space per 200 square feet of gross floor area, B. One employee parking space per 20 outdoor vehicular display spaces, and C. One patron parking space per 20 outdoor vehicular display spaces.
Veterinary services	One (1) space per three hundred (300) square feet gross floor area.
Warehouses, mini	One (1) space per three hundred (300) square feet of gross floor area of administrative office space, plus one (1) space per each fifty (50) storage spaces.
Warehousing, wholesaling establishments, or separate storage buildings.	One (1) parking space for each eight hundred (800) square feet of gross floor area.

Western theme park	Total of all spaces required for the various uses of the theme park, may apply for a reduction in required parking per Section 9.104, Programs and incentives to reduce parking requirements.

Table 9.103.B. Schedule of Parking Requirements in the Downtown Area	
Bars, cocktail lounges, taverns, afterhours or micro-brewery/distillery with live entertainment	A. One (1) space per eighty (80) square feet of gross floor area; and B. One (1) space per two hundred (200) gross square feet of outdoor patio area, excluding the first two hundred (200) gross square feet.
Bars, cocktail lounges, taverns, afterhours or micro-brewery/distillery	A. One (1) space per one-hundred twenty (120) square feet of gross floor area; and B. One (1) space per two hundred (200) gross square feet of outdoor patio area, excluding the first two hundred (200) gross square feet.
Dwellings, multi-family	A. One parking space per dwelling unit for units with one bedroom or less. B. Two parking spaces per dwelling unit, for units with more than one bedroom.
Financial intuitions	A. In a Type 1 area, one (1) space per five hundred (500) square feet of gross floor area; or B. In a Type 2 area, all other lot widths, one (1) space per three hundred (300) square feet of gross floor area.
Fitness studio (no larger than 3,000 gross square feet)	A. One (1) space per three hundred (300) square feet of gross floor area. B. A fitness studio larger than 3,000 gross square feet shall comply with Table 9.103.a.
Galleries	One (1) space per three hundred (500) square feet of gross floor area.

Live entertainment (not including bars, restaurants, and performing arts theaters)	A. With fixed seating. One (1) parking space for two and one-half (2.5) seats. B. Without fixed seating. One (1) parking space for every eighty (80) square feet of gross floor area of an establishment that does not contain fixed seating.
Medical and diagnostic laboratories	One (1) space per three hundred (300) square feet of gross floor area.
Mixed-use commercial centers In mixed-use commercial centers with less than 20,000 square feet of gross floor area, land uses (with parking requirements of one space per 300 square feet or fewer spaces) shall occupy at least 60 percent of gross floor area.	One (1) space per three hundred fifty (350) square feet of gross floor area.
Mixed-use developments	A. One space per 350 square feet of gross floor area of nonresidential area; plus B. Parking spaces required for multiple-family dwellings as shown in this table, except as provided in Section 9.104.H.3.d.
Office, including government and medical/dental offices and clinics	A. In a Type 1 area, one (1) space per five hundred (500) square feet of gross floor area; or B. In a Type 2 area, all other lot widths, one (1) space per three hundred (300) square feet of gross floor area.
Performing arts theaters	One (1) parking space per ten (10) seats.
Restaurants that serve breakfast and/or lunch only, or the primary business is desserts, bakeries, and/or coffee/tea or non-alcoholic beverage	A. One (1) parking space for each four hundred (400) square feet of gross floor area; and B. One (1) space for each three hundred fifty (350) gross square feet of outdoor public floor area. Excluding the first three hundred fifty (350) gross square feet of outdoor public floor area, unless the space is located next to and oriented toward a publicly owned walkway or street, in which case the first five hundred (500) gross square feet of outdoor public floor area is excluded.

Restaurants, including restaurants with a micro-brewery/distillery as an accessory use.	A. One (1) parking space per three hundred (300) square feet of gross floor area; and B. One (1) parking space for each three hundred fifty (350) gross square feet of outdoor patio area. Excluding the first three hundred fifty (350) gross square feet of outdoor patio area, unless the space is located next to and oriented toward a publicly owned walkway or street, in which case the first five hundred (500) gross square feet of outdoor public floor area is excluded.
Restaurants, including restaurants with a micro-brewery/distillery as an accessory use, and with live entertainment	A. When live entertainment limited to the hours that a full menu is available, and the area of live entertainment is less than fifteen (15) percent of the gross floor area, one (1) parking space per three hundred (300) square feet of gross floor area; and B. One (1) parking space for each three hundred fifty (350) gross square feet of outdoor public floor area. Excluding the first three hundred fifty (350) gross square feet of outdoor patio, unless the space is located next to and oriented toward a publicly owned walkway or street, in which case the first five hundred (500) gross square feet of outdoor patio area is excluded. C. When live entertainment is not limited to the hours that a full menu is available, and/or the area of live entertainment is greater than fifteen (15) percent of the gross floor area, one (1) parking space per one hundred twenty (120) square feet of gross floor area, plus patio requirements above at all times.
Retail, personal care services, dry cleaners, and tattoo parlors	A. In a Type 1 area, one (1) space per five hundred (500) square feet of gross floor area; or B. In a Type 2 area, all other lot widths, one (1) space per three hundred (300) square feet of gross floor area.

| Work/live | A. The required parking shall be based on the area of commercial uses, per Table 9.103.B and when applicable, Table 9.103.A.
B. In addition to the parking requirement for the commercial area, parking shall be provide in accordance with the dwellings, multi-family and co-housing parking requirement for developments containing more than one (1) dwelling unit, excluding the first unit (except as provided in Section 9.104.H.3.d). |
| All other uses | As specified Table 9.103.A. |

Note: 1. Type 1 and Type 2 Areas are locations of the Downtown Area described by the Downtown Plan.

(Ord. No. 2736, § 1, 3-7-95; Ord. No. 3048, § 2, 10-7-97; Ord. No. 3225, § 1, 5-4-99; Ord. No. 3879, § 1(Exh. § 26), 3-2-10; Ord. No. 3896, § 1(Exh. § 6), 6-8-10; Ord. No. 3899, § 1(Res. No. 8342, Exh. A, §§ 18, 19), 8-30-10; Ord. No. 3920, § 1(Exh. §§ 104—109), 11-9-10; Ord. No. 3926, § 1(Exh. § 13), 2-15-11; Ord. No. 3980, § 1(Res. 8895, § 1, Exh. A, § 46), 12-6-11; Ord. No. 3992, § 1(Res. No. 8922, Exh. A, § 17), 1-24-12; Ord. No. 4099, § 1(Res. No. 9439, Exh. A, §§ 17—23), 6-18-13; Ord. No. 4117, § 1(Res. No. 9563, Exh. A, §§ 96—98), 11-19-13; Ord. No. 4143, § 1(Res. No. 9678, Exh. A, §§ 246—249), 5-6-14; Ord. No. 4265, § 1, 6-21-16)

Sec. 9.104. - Programs and incentives to reduce parking requirements.

The following programs and incentives are provided to permit reduced parking requirements in the locations and situations outlined herein where the basic parking requirements of this Zoning Ordinance would be excessive or detrimental to goals and policies of the city relating to mass transit and other alternative modes of transportation.

A. *Administration of parking reductions.* Programs and incentives which reduce parking requirements may be applied individually or jointly to properties and developments. Where reductions are allowed, the number of required parking spaces which are eliminated shall be accounted for both in total and by the program, incentive or credit which is applied. The record of such reductions shall be kept on the site plan within the project review file. Additionally, the reductions and manner in which they were applied shall be transmitted in writing to the property owner.

B. *Credit for on-street parking.* Wherever on-street angle parking is provided in the improvement of a street, credit toward on-site parking requirements shall be granted at the rate of one (1) on-site space per every twenty-five (25) feet of frontage, excluding the following:

1. Frontage on an arterial, major arterial or expressway as designated in the Transportation Master Plan.

2. Frontage on a street that is planned to be less than fifty-five (55) feet wide curb-to-curb.

3. Frontage within twenty (20) feet of a corner.

4. Frontage within ten (10) feet of each side of a driveway or alley.

5. Frontage within a fire hydrant zone or other emergency access zone.

6. Locations within the Downtown Area.

C. *Credit for bicycle parking facilities.*

1. *Purpose.* The City of Scottsdale, in keeping with the federal and Maricopa County Clean Air Acts, wishes to encourage the use of alternative transportation modes such as the bicycle instead of the private vehicle.

Reducing the number of vehicular parking spaces in favor of bicycle parking spaces helps to attain the standards of the Clean Air Act, to reduce impervious surfaces, and to save on land and development costs.

2. *Performance standards.* The Zoning Administrator may authorize credit towards on-site parking requirements for all uses except residential uses, for the provision of bicycle facilities beyond those required by this Zoning Ordinance, subject to the following guidelines:

   a. Wherever bicycle parking is provided beyond the amount required per Section 9.103.C., required bicycle parking, credit toward required on-site vehicular parking may be granted pursuant to the following:

      i. Downtown Area: one (1) vehicular space per eight (8) bicycle spaces.

      ii. All other zoning districts: one (1) vehicular space per ten (10) bicycle spaces.

   b. Wherever bicycle parking facilities exceed the minimum security level required per Section 9.103.D., required bicycle parking, credit towards required onsite vehicular parking may be granted at a rate of one (1) vehicular space per every four (4) high-security bicycle spaces.

      High-security bicycle spaces shall include those which protect against the theft of the entire bicycle and of its components and accessories by enclosure through the use of bicycle lockers, check-in facilities, monitored parking areas, or other means which provide the above level of security as approved by the Zoning Administrator.

   c. Wherever shower and changing facilities for bicyclists are provided, credit towards required on-site vehicular parking may be granted at the rate of two (2) vehicular spaces per one (1) shower.

   d. The number of vehicular spaces required Table 9.103.A., or when applicable Table 9.103.B., shall not be reduced by more than five (5) percent or ten (10) spaces, whichever is less.

D. *Credit for participation in a joint parking improvement project.* After April 7, 1995, no new joint parking improvement projects shall be designated in the City of Scottsdale. Existing joint parking improvement projects may continue to exist, subject to the standards under which they were established.

The joint parking improvement project was a program through which a group of property owners with mixed land uses including an area of more than three (3) blocks and at least six (6) separate ownerships could join together on a voluntary basis to form a parking improvement district, providing parking spaces equal to a minimum of thirty (30) percent of their combined requirements according to the ordinance under which they were established. Each participant property could have received credit for one and one-half (1½) times his proportioned share of the parking spaces provided. The project required that a statement be filed with the superintendent of buildings stating the number of spaces assigned to each participating property. No adjustments were to be permitted subsequent to the filing of this statement.

E. *Mixed-use shared parking programs.*

1. Purpose. A mixed-use shared parking program is an option to reduce the total required parking in large mixed-use commercial centers and mixed-use developments in which the uses operate at different times throughout the day. The city recognizes that strict application of the required parking ratios may result in excessive parking spaces. This results in excessive pavement and impermeable surfaces and discourages the use of alternate transportation modes.

2. Applicability. A mixed-use shared parking program is an alternative to a parking master plan.

3. Procedure.

   a. A mixed-use shared parking program may be proposed at the time a parking plan is required.

   b. The mixed-use shared parking program may also be requested exclusive of any other site plan review or permitting procedure.

   c. Mixed-use shared parking plans shall be reviewed by, and are subject to the approval of, the Zoning Administrator.

   d. Alternatively, the applicant may elect to have the shared parking plan reviewed by, and subject to the

approval of, the City Council in a public hearing.

    e. For changes of use in mixed-use projects, the parking necessary for the new mix of uses shall not exceed the parking required by the previous mix of uses.

4. Limitations on mixed-use shared parking.

    a. The total number parking spaces required by Table 9.103.B. and the total number of parking spaces required for a mixed-use commercial center and mixed-use development indicated in Table 9.103.A. shall not be used to reduce the required parking in the Downtown Area or a development that is defined as mixed-use development or mixed- use commercial center not in the Downtown Area.

    b. The total number of parking spaces required by Table 9.103.A. shall not be reduced by more than twenty (20) percent.

5. Performance standards. The Zoning Administrator may authorize a reduction in the total number of required parking spaces for two (2) or more uses jointly providing on-site parking subject to the following criteria:

    a. The respective hours of operation of the uses do not overlap, as demonstrated by the application on Table 9.104.A., Schedule of Shared Parking Calculations. If one (1) or all of the land uses proposing to use joint parking facilities do not conform to one (1) of the general land use classifications in Table 9.104.A., Schedule of Shared Parking Calculations, data shall indicate there is not substantial conflict in the principal operating hours of the uses. Such data may include information from a professional publication such as those published by the Institute of Transportation Engineers (ITE) or the Urban Land Institute (ULI), or by a professionally prepared parking study.

    b. A parking plan shall be submitted for approval which shall show the layout of proposed parking.

    c. The property owners involved in the joint use of on-site parking facilities shall submit a written agreement subject to City approval requiring that the parking spaces shall be maintained as long as the uses requiring parking exist or unless the required parking is provided elsewhere in accordance with the provisions of this Article. Such written agreement shall be recorded by the property owner with the Maricopa County Recorder's Office prior to the issuance of a building permit, and a copy filed in the project review file.

Table 9.104.A Schedule of Shared Parking Calculations

General Land Use Classification	Weekdays			Weekends		
	12:00 a.m.— 7:00 a.m.	7:00 a.m.— 6:00 p.m.	6:00 p.m.— 12:00 a.m.	12:00 a.m.— 7:00 a.m.	7:00 a.m.— 6:00 p.m.	6:00 p.m.— 12:00 a.m.
Office and industrial	5%	100%	5%	0%	60%	10%
Retail	0%	100%	80%	0%	100%	60%
Residential	100%	55%	85%	100%	65%	75%
Restaurant and bars	50%	70%	100%	45%	70%	100%
Hotel	100%	65%	90%	100%	65%	80%
Churches and places of worship	0%	10%	30%	0%	100%	30%

Cinema/theater, and live entertainment	0%	70%	100%	5%	70%	100%

How to use the schedule of shared parking. Calculate the number of parking spaces required by Table 9.103.A. for each use as if that use were free-standing (the total number of parking spaces required by Table 9.103.B. and the total number of parking spaces required for a mixed-use commercial center and mixed-use development indicated in Table 9.103.A. shall not be used to reduce the required parking in the Downtown Area, or a development that is defined as mixed-use development or mixed-use commercial center not in Downtown Area.)

Applying the applicable general land use category to each proposed use, use the percentages to calculate the number of spaces required for each time period, (six (6) time periods per use). Add the number of spaces required for all applicable land uses to obtain a total parking requirement for each time period. Select the time period with the highest total parking requirement and use that total as your shared parking requirement.

F. *Parking master plan.*

1. *Purpose.* A parking master plan is presented as an option to promote the safe and efficient design of parking facilities for sites larger than two (2) acres or those sites in the Downtown Type 1 Area as designated by the Downtown Plan larger than sixty thousand (60,000) square feet. The city recognizes that strict application of the required parking standards or ratios may result in the provision of parking facilities of excessive size or numbers of parking spaces. This results in excessive pavement and impermeable surfaces and may discourage the use of alternate transportation modes. A parking master plan provides more efficient parking through the following requirements.

2. *Applicability.* The parking master plan is appropriate to alleviate problems of reuse and is also applicable as an alternative to the above mixed-use shared parking programs.

3. *Procedure.*

   a. A parking master plan may be proposed at the time a parking plan is required.

   b. The parking master plan may also be requested exclusive of any other site plan review or permitting procedure.

   c. Parking master plans shall be reviewed by, and are subject to the approval of, the Zoning Administrator.

   d. For changes of use in mixed-use projects, the parking necessary for the new mix of uses shall not exceed the parking required by the previous mix of uses.

4. Limitations on parking master plans.

   a. The total number parking spaces required by Table 9.103.B. and the total number of parking spaces required for a mixed-use commercial center and mixed-use development indicated in Table 9.103.A. shall not be used to reduce the required parking in the Downtown Area or a development that is defined as mixed-use development or mixed-use commercial center not in the Downtown Area.

   b. The Zoning Administrator shall only permit reductions of up to twenty (20) percent of the total parking required per Table 9.103.A.

   c. Reductions of more than twenty (20) percent of required parking shall be subject to approval by the City Council.

5. Elements of a parking master plan. The contents of the parking master plan shall include:

a. A plan, which graphically depicts where the spaces and parking structures are to be located.

b. A report, which demonstrates how everything shown on the plan complies with or varies from applicable standards and procedures of the City.

c. The plan shall show all entrances and exits for any structured parking and the relationship between parking lots or structures and the circulation master plan.

d. The plan, supported by the report, shall show the use, number, location, and typical dimensions of parking for various vehicle types including passenger vehicles, trucks, vehicles for mobility impaired persons, buses, other transit vehicles and bicycles.

e. The plan, supported by the report, shall include phasing plans for the construction of parking facilities and any interim facilities planned.

f. Whenever a reduction in the number of required parking spaces is requested, the required report shall be prepared by a registered civil engineer licensed to practice in the State of Arizona and shall document how any reductions were calculated and upon what assumptions such calculations were based.

g. Parking ratios used within the report shall be based upon uses or categories of uses already listed within Table 9.103.A., Schedule Of Parking Requirements (the total number of parking spaces required by Table 9.103.B. and the total number of parking spaces required for a mixed-use commercial center and mixed-use development indicated in Table 9.103.A. shall not be used to reduce the required parking in the Downtown Area or a development that is defined as mixed-use development or mixed-use commercial center not in the Downtown Area.)

h. Such other information as is determined by the reviewing authority to be necessary to process the parking master plan.

6. *Performance standards.* Parking shall comply with the requirements of the Zoning Ordinance as amended except where application of the following criteria can show that a modification of the standards is warranted. This shall be determined by the Zoning Administrator pending review of the materials described in Subsection 5. above.

a. The parking master plan shall provide sufficient number and types of spaces to serve the uses identified on the site.

b. Adequate provisions shall be made for the safety of all parking facility users, including motorists, bicyclists and pedestrians.

c. Parking master plans shall be designed to minimize or alleviate traffic problems.

d. Parking spaces shall be located near the uses they are intended to serve.

e. Adequate on-site parking shall be provided during each phase of development of the district.

f. The plan shall provide opportunities for shared parking or for other reductions in trip generation through the adoption of Transportation Demand Management (TDM) techniques to reduce trip generation, such as car pools, van pools, bicycles, employer transit subsidies, compressed work hours, and High Occupancy Vehicle (HOV) parking preference.

g. Surfacing of the lot shall be dust-proof, as provided by Section 9.106.C.1.

h. The parking master plan shall attempt to reduce environmental problems and to further the City's compliance with the federal Clean Air Act amendments of 1990 through appropriate site planning techniques, such as but not limited to reduced impervious surfaces and pedestrian connections.

i. Compliance with the federal Clean Air Act amendments of 1990 shall be considered.

j. Reductions in the number of parking spaces should be related to significant factors such as, but not limited to:

    i.   Shared parking opportunities;

    ii. Hours of operation;

iii. The availability and incorporation of transit services and facilities;

iv. Opportunities for reduced trip generation through pedestrian circulation between mixed-uses;

v. Off-site traffic mitigation measures;

vi. Recognized variations in standards due to the scale of the facilities;

vii. Parking demand for a specified use; and

viii. The provisions of accessible parking spaces beyond those required per Section 9.105.

k. Reductions in the number of parking spaces for neighborhood-oriented uses may be granted at a rate of one (1) space for every existing or planned residential unit located within two (2) blocks of the proposed use, and one-half (0.5) space for every existing or planned residential unit located within four (4) blocks of the proposed use.

7. *Approval.* The property owner involved in the parking master plan shall submit a written agreement, subject to City approval, requiring that the parking facility and any associated Transportation Demand Management (TDM) techniques shall be maintained without alteration unless such alteration is authorized by the Zoning Administrator. Such written agreement shall be recorded by the property owner with the Maricopa County Recorder's Office prior to the issuance of a building permit, and a copy filed in the project review file.

G. *Reserved.*

H. *Downtown Overlay District Program.*

1. *Purpose.* This parking program will ease the process of calculating parking supply for new buildings, remodels, or for buildings with new tenants or new building area.

This parking program consists of two (2) elements: Parking required and parking waiver.

2. *Parking required.* The amount of parking required shall be:

a. *If there is no change of parking intensity.*

i. If there is no change of parking intensity of the land use on any lot that has a legal land use existing as of July 31, 2003, no additional parking shall be required.

b. *Parking credits.*

i. Parking credits under this program shall be only for: parking improvement districts, permanent parking in-lieu credits, approved zoning variances for on-site parking requirements - unless the Zoning Administrator finds that the justification for the parking variance no-longer exists, and Parking P-3 District, except as provided in Section 9.104.H.2.b.i.(1). Only these parking credits shall carry forward with any lot that has parking credits as of July 31, 2003.

(1) Parking credits associated with the Parking P-3 District shall continue to apply, unless the Parking P-3 District is removed from the property.

ii. The Downtown Overlay District does not void public agreements for parking payments of any type of parking program.

iii. Any parking improvement district credit(s) or permanent parking in-lieu credit(s) that the lot has that are in excess of the current parking demand shall remain with the lot.

iv. Property owners are still required to pay for any program that allowed them to meet the parking requirements.

c. *Increase in parking.*

i. When a property's parking requirements increase above the parking requirements on July 31, 2003, the new parking requirement is calculated as follows:

(N - O) + T = number of parking spaces required

N = new (increased) parking requirement

O = old parking requirement (on July 31, 2003)

T = total of on-site and any remote parking spaces, plus any parking credits required on July 31, 2003 to meet the old parking requirement (excluding excess on-site and remote parking spaces and any excess parking credits).

   ii.   As applicable, Table 9.103.A. Table 9.103.B. shall be used to calculate N and O.

   iii.   A waiver to this requirement is in Section 9.104.H.3.

3. *Parking waiver within the Downtown Overlay District.*

   a.   *Purpose.* This parking waiver is designed to act as an incentive for new buildings, and for building area expansions of downtown businesses, which the expansion will have a minimal impact on parking demand.

   b.   *Applicability.* Upon application, property owners may have parking requirements waived if they meet both the following criteria:

      i.   Are within the Downtown Overlay District, and/or the Downtown District; and

      ii.   The new building or the new area of a building expansion is used for retail, office, restaurant or personal care services uses allowed in the underlying district.

   c.   *Limitations on this parking waiver.*

      i.   Can be used only once per lot existing as of July 31, 2003.

      ii.   Can be used for retail, office, restaurant or personal care services uses allowed in the underlying district at a ratio of one (1) space per three hundred (300) gross square feet.

      iii.   Is limited to a maximum of two thousand (2,000) gross square feet of new building, or building area expansion. The two thousand (2,000) gross square feet per lot of new building, or building area expansion may be used incrementally, but shall not exceed two thousand (2,000) gross square feet of the building size of each lot existing as of July 31, 2003.

      (1)   Except as provided in Section 9.104.H.3.c.iii.(1)., a lot that is created after July 31, 2003 from more than one (1) lot that existed as of July 31, 2003 shall be allowed to utilize parking waiver as cumulative total of all lots that were incorporated into one (1) lot.

      (2)   A lot(s) that is created after July 31, 2003 from a portion of a lot(s) that existed as of July 31, 2003 shall be entitled to a waiver of area, as described in section 9.104.H.3.c.iii., based on the pro-rata portion of the net lot that was split from the existing lot(s) and incorporated into the new lot(s). For example:

As shown in Figure 9.104.A., Lot A and Lot B are reconfigured into two (2) new lot configurations, Lot C and Lot D. Lot C now includes all of the net lot area of Lot A and sixty (60) percent of the net lot area of Lot B. Lot C is entitled to the all of the waiver of Lot A and sixty (60) percent of the waiver of Lot B. Lot D is entitled only to forty (40) percent of the waiver of Lot B.

FIGURE 9.104.A.

LOT A AND LOT B EXISTED
AS OF JULY 31, 2003

LOT C AND LOT D WERE CREATED
FROM THE TOTAL NET LOT AREA
OF LOT A AND LOT B
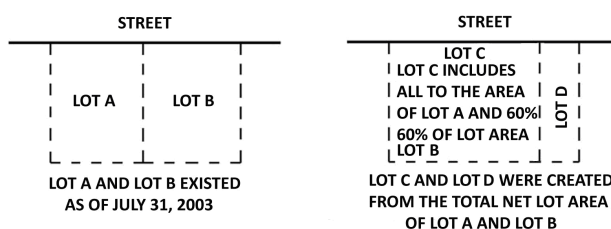
Therefore, Lot C's wavier would be three thousand two hundred (3,200) square feet of new building, or building area expansion; and Lot D's wavier would be eight hundred (800) square feet of new building, or building area expansion.

Another example may be:

As shown in Figure 9.104.B., Lot E and Lot F are reconfigured into three (3) new lots, Lot G, Lot H, and Lots I. Lot G, Lot H, and Lots I are each equal to one-third (1/3) of the total net lot area of Lot E and Lot F. therefore, Lot G, Lot H, AND Lots I each are entitled to one-third (1/3) of the total wavier that is allowed for Lot E and Lot F.

FIGURE 9.104.B.
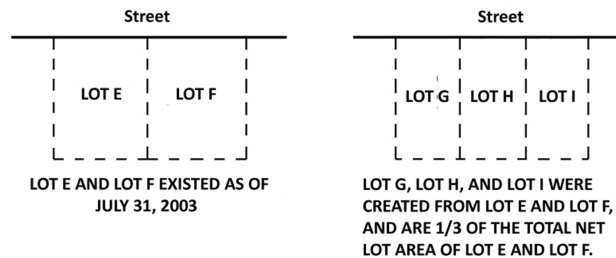
Therefore, Lot G's, Lot H's, and Lot I's waiver each would be one thousand three hundred thirty-three and one-third (1,333.33) square feet of new building, or building area expansion.

____

      iv. Cannot be used on land that issued to meet a property's current parking requirement unless the same number of physical parking spaces are replaced elsewhere on site, or through the purchase of permanent in-lieu parking credits.

   d. *Residential addition parking waiver.* No additional parking is required for up to four new dwelling units that are added to a development as part of a 2,000 square foot (or smaller) nonresidential gross floor area expansion.

(Ord. No. 2736, § 1, 3-7-95; Ord. No. 3520, § 1, 7-1-03; Ord. No. 3543, § 1(Exh. 1), 12-9-03; Ord. No. 3774, § 2, 3-18-08; Ord. No. 3896, § 1(Exh. § 6), 6-8-10; Ord. No. 3920, § 1(Exh. §§ 110—114), 11-9-10; Ord. No. 3980, § 1(Res. 8895, § 1, Exh. A, § 47), 12-6-11; Ord. No. 4005, § 1(Res. No. 8947, Exh. A, § 199, 200), 4-3-12; Ord. No. 4099, § 1(Res. No. 9439, Exh. A, §§ 24, 25), 6-18-13; Ord. No. 4143, § 1(Res. No. 9678, Exh. A, §§ 250—261), 5-6-14)

Sec. 9.105. - Mobility impaired accessible spaces.

   A. *Purpose.* The City encourages all development to provide adequate facilities for accessibility to people with mobility impairments covered by the Americans with Disabilities Act (ADA) and the Fair Housing Act (FHA), as amended.

   B. *Required accessible parking spaces.*

      1. Accessible parking spaces for any building or use shall conform to the ADA, FHA and Article IX.

      2. Outpatient facilities in a hospital. Minimum: ten (10) percent of the provided parking.

      3. Rehabilitation facilities specializing in treating mobility impairments. Minimum: twenty (20) percent of the provided parking.

      4. Other uses. Minimum: four (4) percent of the provided parking.

   C. *Reductions in the required accessible parking spaces.*

      1. To reduce the number of accessible parking spaces, the property owner shall submit a development application to the Zoning Administrator, including the following:

a. A report indicating the actual demand for the number of accessible parking spaces in the development project, a

b. Any other information requested by the Zoning Administrator.

2. The Zoning Administrator may approve a reduction in the required accessible parking spaces, if:

a. The development project provides over five hundred (500) parking spaces;

b. The development project includes major employment use(s);

c. The development project is within six hundred (600) feet of a public transit route and stop;

d. The development project has minimal direct daily visitors;

e. The reduced demand for accessible parking spaces is supported by the request; and

f. The request is supported by other relevant information determined by the Zoning Administrator.

3. The accessible parking spaces required shall not be less than two (2) percent of the provided parking spaces, or as required by ADA, whichever results in more accessible parking spaces.

D. *Existing developments.*

1. The location and any restriping of accessible parking spaces shall comply with the approved site plan, and applicable ADA and FHA requirements.

2. Reconfiguring any onsite parking shall be subject to City approval. All reconfigured accessible parking spaces shall conform with Article IX. and the Design Standards & Policies Manual.

E. *Location of accessible spaces.*

1. Each accessible parking space shall be located adjacent to the shortest route to the accessible building entrance used by the public.

2. Accessible parking spaces shall be dispersed, but located nearest to accessible entrances, for any building with multiple accessible entrances.

3. Accessible parking spaces shall be dispersed, but located nearest to accessible entrances, throughout a development project with multiple buildings.

4. The minimum width of the accessible route shall conform to the ADA, FHA and the Design Standards and Policies Manual.

5. Accessible parking in a parking structure or podium parking may be provided on one level adjacent to the shortest route to the accessible building entrance.

6. Where a development project provides fewer than five (5) on-site parking spaces accessed from an alley, the Zoning Administrator may approve a nearby on-street accessible parking space upon finding the space affords:

a. Greater accessibility to the accessible building entrance, and

b. Greater convenience.

F. *Standards.* Accessible parking spaces and access aisles shall conform to the Design Standards & Policies Manual, and the following:

1. Minimum accessible parking space width: eleven (11) feet.

2. Minimum accessible parking space length: In accordance with Section 9.106.

3. Access aisle width: five (5) feet.

4. Two (2) adjacent accessible parking spaces may share an access aisle.

G. *Identification.* Identification, signage and markings of the accessible parking spaces, access aisles and access routes shall conform to the ADA, FHA, and the Design Standards and Policies Manual.

H. *Slope.*

1. Maximum slope of a ramp from the access aisle to a sidewalk: 1:12 ratio.

2. Maximum slope and cross slope of the access aisle and route: 1:50 ratio.

I. *Accessible tenant covered parking, podium parking, and parking structure parking spaces for multiple dwelling*

development projects.

    1.   Minimum: the same percentage as non-accessible tenant covered, podium parking, and parking structure parking spaces.

  J. *Accessible separate garage parking for multiple dwelling development projects.*

    1.   Where separate garages for the dwelling units are provided in a multiple dwelling development project, the site plan shall designate which garages are adaptable for accessible parking.

    2.   Minimum: the same percentage as non-accessible separate garages.

    3.   The dimensions of each accessible parking space and access aisle shall comply with Article IX.

  K. *Accessible covered parking, garage, podium parking, and parking structure parking for visitors of multiple dwelling development projects.*

    1.   Minimum: the same percentage as non-accessible covered parking, garage, podium parking, and parking structure parking spaces.

  L. *Common covered accessible parking for employees.* The property owner shall provide accessible covered parking space(s) upon request from an employee that is employed by an establishment on the property if the property owner provides non-accessible common covered parking.

  M. *Accessible non-residential covered parking, garage, podium parking, and parking structure parking.*

    1.   Minimum: the same percentage as non-accessible covered parking, garage, podium parking, and parking structure parking spaces.

  N. *Reasonable accommodations.* Property with a parking structure or podium parking that was permitted before January 26, 1992 with a Certificate of Occupancy issued before January 26, 1993, and which is unable to provide accessible parking within the parking structure or podium parking due to structural or other reasonable limitations, shall provide reasonable accommodations on the property for accessible covered parking, subject to the Zoning Administrator's approval.

  O. *Vertical clearance.* In addition to ADA and FHA requirements:

    1.   Minimum accessible parking space vertical clearance: eight (8) feet two (2) inches.

    2.   Minimum vehicular drive aisle vertical clearance to and from covered parking, garage, podium parking, and parking structure accessible parking space(s): eight (8) feet two (2) inches.

  P. *Passenger loading zones.* Passenger loading zones shall conform to the ADA, FHA and the Design Standards and Policies Manual.

  Q. The ADA, FHA, and Section 504 of the Rehabilitation Act of 1973, as amended, apply if any part of this Section 9.105 is determined unenforceable.

(Ord. No. 2736, § 1, 3-7-95; Ord. No. 3896, § 1(Exh. § 6), 6-8-10; Ord. No. 3920, § 1(Exh. § 115), 11-9-10; Ord. No. 4117, § 1(Res. No. 9563, Exh. A, § 99), 11-19-13)

Sec. 9.106. - Design standards for public and private on-site ingress, egress, maneuvering and parking areas.

  A. *Standard Parking space dimension.*

    1.   *Vehicular.*

       a.   Except for parallel parking spaces, as indicated below, and in Table 9.106.A. parking spaces shall have a minimum width of nine (9) feet and a minimum length of eighteen (18) feet. Parallel parking spaces shall have a minimum width of nine (9) feet and a minimum length of twenty-one (21) feet.

          i.   For new development and/or redevelopment constructed after July 9, 2010, when a side of a parking space is adjacent to a wall, column, or other obstruction, except as provided in Sections 9.106.A.1.a.ii. and 9106.A.1.a.iii., that is taller than six (6) inches, and where a minimum three-foot wide unobstructed

pedestrian access aisle is not provided between the wall, column, or other obstruction and the parking spaces, the width of the parking space shall be increased by two (2) feet on the obstructed side, as illustrated by Figure 9.106.A.

(1).   The entire required width and length of a parking space(s) shall not be obstructed by a column, or obstruction that is greater than six (6) inches in height, as illustrated by Figure 9.106.A.

ii.   For new development and/or redevelopment constructed after July 9, 2010, when a side of a parking space, excluding a parallel parking space, that is adjacent to a column that is taller than six (6) inches, the obstructed side shall be unobstructed for a minimum of twelve (12) feet, which is between the front three (3) feet and rear three (3) feet of the parking space, as further illustrated by Figure 9.106.A.

FIGURE 9.106.A. Column, etc. Obstructions
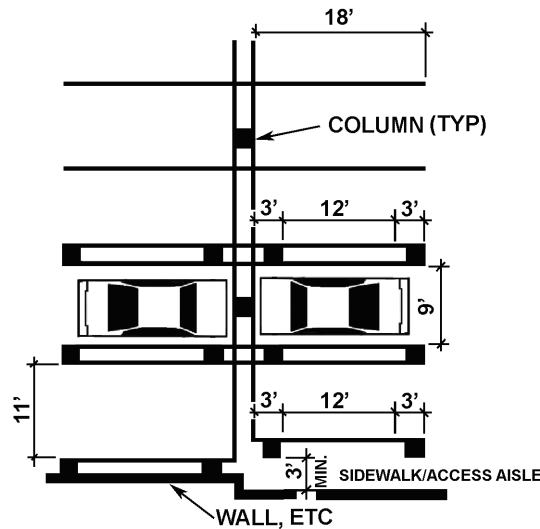
iii.   For new development and/or redevelopment constructed after July 9, 2010, when a side of a parallel parking space that is adjacent to a wall, column, or other obstruction that is taller than six (6) inches, the obstructed side shall be unobstructed for a minimum of twelve (12) feet, which is between the front four and one-half (4½) feet and rear four and one-half (4½) feet of the parking space, as further delineated by Figure 9.106.B.

### Figure 9.106.B. Parallel Parking Space Side Obstructions
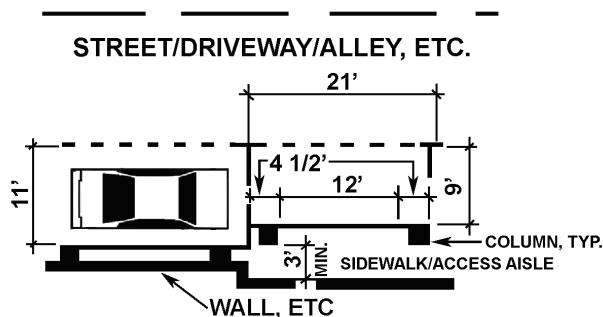
b.   As illustrated in Figure 9.106.C., the front length of the space may over-hang a curb or low planter of a maximum height of six (6) inches and a maximum depth of two (2) feet which may not be calculated as required open space, or required parking lot landscaping. If a low planter is utilized the following conditions shall be met:

i.   Where the front of a parking stall overhangs a curb or planter on one (1) side only, the minimum width of

the planter shall be four (4) feet.

ii.   Where the front of a parking stall overhangs a curb or planter on both sides, the minimum width of the planter shall be eight (8) feet.

Figure 9.106.C. Parking Stall Overhangs
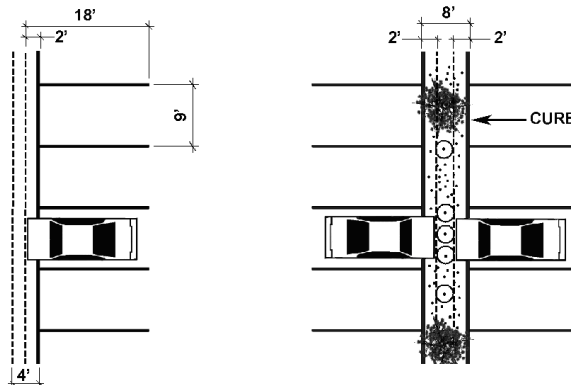
c.   Where special circumstances exist, such as, but not limited to, a lot size, the Development Review Board may approve parking space sizes different from the requirements of the sections of 9.106.A.1. and Table 9.106.A.; but may not approve aisle sizes different from the requirements of Table 9.106.A.

2.   *Bicycle.* Bicycle parking spaces shall have a minimum width of two (2) feet and a minimum length of six (6) feet, unless the spaces are provided by a pre-manufactured bicycle rack or locker which differ from this dimension, in which case the dimension of the pre-manufactured rack or locker shall suffice.

B.   *Parking layout.* Minimum layout dimensions are established in Table 9.106.A. and Figure 9.106.D. which shall apply to all off-street parking areas with the exception that parking spaces accessed by an alley shall require a minimum of ten (10) feet from the back of the space to the alley centerline.

Table 9.106.A. On-Site Parking Dimensions								
Angle	Stall Width (A) [1, 3]	Vehicle Projection (B) [1]	Aisle (C)* [1, 2]	Typical Module (D) [1]	Interlock Reduction (E) [1]	Overhang (F) [1]	Curb Length (G) [1]	End of Row Waste (H) [1]
0°	21	9.0	12.0	40.0	0	0	21.0	—
45°	9.0	19.1	12.0	50.2	6.4	1.4	12.7	19.1
50°	9.0	19.6	14.5	53.7	5.8	1.5	11.7	16.4
55°	9.0	19.9	16.0	55.8	5.2	1.6	11.0	13.9
60°	9.0	20.1	18.0	58.2	4.5	1.7	10.4	11.6
65°	9.0	20.1	20.0	60.2	3.8	1.8	9.9	9.4
70°	9.0	20.0	22.0	62.0	3.1	1.9	9.6	7.3
75°	9.0	19.7	24.0	63.4	2.3	1.9	9.3	5.3

| 90° | 9.0 | 18.0 | 24.0 | 60.0 | 0 | 2.0 | 9.0 | 0 |

Note:

1. All measurements are in feet.

2. No two-way drive aisle shall be less than twenty-four (24) feet in width.

3. An accessible parking stall width and access aisle shall comply with Section 9.105.E.

Figure 9.106.D.
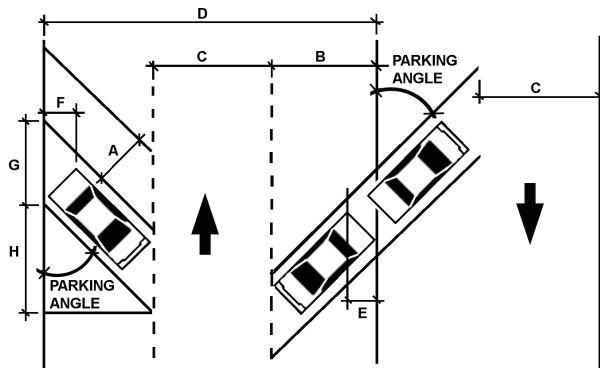
C. *Design and improvement standards.*

1. *Vehicular.*

   a. Residential uses with up to four (4) units: parking, maneuvering, ingress and egress areas, for residential uses, with a total area of three thousand (3,000) square feet or greater, shall be improved in compliance with the Design Standards & Policies Manual and thereafter maintained by surfacing, to prevent emanation of dust, with (1) concrete, asphalt, cement or sealed aggregate pavement; (2) three (3) inches deep crushed rock completely contained in a permanent border; or (3) another stabilization material approved by Maricopa County.

   b. Nonresidential uses and residential uses with more than four (4) units: parking, maneuvering, ingress and egress areas for (1) industrial, commercial, and nonresidential uses, and (2) residential uses with more than four (4) units shall be improved in compliance with the Design Standards & Policies Manual and thereafter maintained with regard to:

      i. Grading and drainage.

      ii. Surfacing, to prevent emanation of dust, with (1) concrete, asphalt, cement or sealed aggregate pavement; (2) three (3) inches deep crushed rock completely contained in a permanent border; or (3) another stabilization material approved by Maricopa County.

      iii. Parking stall layout and markings.

      iv. Protective pipes at driveway entrances.

      v. Curbs, barriers and wheel stops. This requirement shall not apply within the taxilane safety area.

      vi. Directional signs.

   c. Nonresidential uses and residential uses with more than four (4) units: parking areas for (1) industrial, commercial, and nonresidential uses, and (2) residential uses with more than four (4) units shall meet the following standards:

      i. The parking lot shall be designed so that vehicles exiting therefrom will not be required to back out

across any sidewalk or street.

    ii.   Except as permitted in Section 9.106.C.1.c.ii.(1). All required on-site parking spaces shall be accessed directly from a drive aisle, alley or driveway. All on-site parking facilities shall be provided with appropriate means of vehicular access to a public street.

      (1)   Residential parking space may be provided in a two (2) parking space tandem configuration if the tandem spaces are allocated to the same residential dwelling. Tandem parking spaces shall be accessed directly from a drive aisle, alley or driveway.

    iii.   All parking lots shall be illuminated in accordance with Section 7.600, Outdoor Lighting, or as determined by the Development Review Board.

    iv.   Illumination of an on-site parking area shall be arranged so as not to reflect direct rays of light into adjacent residential districts and streets. In no case shall such lighting cause more than one (1) footcandle of light to fall on adjacent properties as measured horizontally at the lot line, or as approved by the Development Review Board. Shields shall be used where necessary to prevent exposure of adjacent properties.

    v.   Any wall, fence or landscaping provided shall be adequately protected from damage by vehicles using the parking lot and shall be properly maintained and kept in good repair at all times.

  d.   The effective dates for the improvement standards regarding surfacing set forth in this section shall be:

    i.   October 1, 2008 for parking, maneuvering, ingress and egress areas for industrial, commercial, and nonresidential uses, and residential uses with more than four (4) units; and

    ii.   October 1, 2009 for parking, maneuvering, ingress and egress areas, for residential uses, with a total area of three thousand (3,000) square feet or greater.

2. *Bicycle.*

  a.   The type of bicycle parking facility provided shall be determined according to the requirements of Section 9.103.C., Required bicycle parking, and Section 9.104.C, Credit for bicycle parking facilities.

  b.   Bicycle facilities shall be located on the same site as the generating land use and within fifty (50) feet of the building entrance in a location which does not extend into pedestrian sidewalks or vehicular traffic lanes.

  c.   Lighting shall be provided along the access route from the bicycle facility to the building if the route is not completely visible from lighting on the adjacent sidewalks or vehicular parking facilities. Such lighting shall be provided in accordance with Section 7.600, Outdoor Lighting, or as determined by the Development Review Board.

3. *Covered parking.*

  a.   No covered parking shall be allowed in a required yard or building setback.

D. *Driveway parking prohibited except in residential districts.* Except in residential districts, parking in driveways connecting the public right-of-way with a parking area or garage shall not be permitted on or adjacent to the driveway.

E. *Landscape design.*

1. Parking lot landscaping and landscape islands shall be provided in accordance with Article X.

2. Parking structures fronting on a public street shall include pedestrian-related amenities such as sitting areas, planters, and visually-interesting wall surfaces at the street level along the street frontage, subject to design approval by the Development Review Board.

F. *Screening.*

1. Parking lot areas and on-site vehicular circulation (including drive-throughs and drive-ins, but excluding access driveways to streets and alleys) shall be screened from all streets and alleys by a three-foot tall masonry wall or berm and/or opaque landscape materials, subject to design approval by the Development Review Board.

2. Outdoor vehicle display areas shall be screened, subject to design approval by the Development Review Board.

(Ord. No. 2736, § 1, 3-7-95; Ord. No. 2887, § 1, 3-19-96; Ord. No. 2977, § 1, 12-17-96; Ord. No. 3225, § 1, 5-4-99; Ord. No. 3274, § 2, 12-7-99; Ord. No. 3774, § 3, 3-18-08; Ord. No. 3896, § 1(Exh. § 6), 6-8-10; Ord. No. 3920, § 1(Exh. § 116), 11-9-10; Ord. No. 4005, § 1(Res. No. 8947, Exh. A, § 201), 4-3-12; Ord. No. 4099, § 1(Res. No. 9439, Exh. A, §§ 26—28), 6-18-13; Ord. No. 4117, § 1(Res. No. 9563, Exh. A, § 100), 11-19-13; Ord. No. 4143, § 1(Res. No. 9678, Exh. A, § 262), 5-6-14)

Sec. 9.107. - Remote parking.

    A.   *Remote parking.* Parking off a development site is permitted under the following procedures.

    B.   *Remote parking agreement.* The remote parking agreement shall be subject to approval by the Zoning Administrator and City Attorney. The document shall contain the following and be recorded against the properties where the parking and served use are located.

        1.   A term of at least five (5) years, to protect the city's interests in providing long-term, stable parking for the served use.

        2.   Discontinuation of the served use if the remote parking becomes unavailable.

        3.   Maintenance requirements.

        4.   Termination, violations and enforcement provisions.

    C.   *Zoning Administrator review.* The Zoning Administrator shall consider whether the remote parking:

        1.   Is within six hundred (600) feet of the property line of the served use.

        2.   Is accessible to the served use by a direct, safe, continuous pedestrian way.

        3.   Serves the purposes of this Zoning Ordinance.

(Ord. No. 4099, § 1(Res. No. 9439, Exh. A, § 29), 6-18-13)

Editor's note— Ord. No. 4099, § 1(Res. No. 9439, Exh. A, § 29), adopted June 18, 2013, repealed and reenacted § 9.107 in its entirety to read as herein set out. Prior to inclusion of said ordinance, said provisions pertained to locating required parking relative to the use served. See also the Code Comparative Table.

Sec. 9.108. - Special parking requirements in districts.

    A.   *Planned Regional Center (PRC).* The provisions of Article IX shall apply with the following exceptions:

        1.   There shall be no parking required for courtyards or other open spaces, except that those portions thereof used for sales or service activities shall provide parking as specified elsewhere by this Zoning Ordinance.

        2.   Parking for dwellings shall be covered.

    B.   *Theme Park District (WP).* The provisions of Article IX shall apply with the following exceptions:

        1.   The number of spaces required in Table 9.103.A. may be proportionately reduced by the provision of bus parking. Bus parking provided in lieu of automobile parking spaces may account for a maximum reduction of fifty (50) percent of the spaces required in Table 9.103.A.

        2.   If any bus parking is provided in lieu of automobile parking spaces, one (1) overflow automobile parking space shall be provided for each twenty-five (25) persons for whom seating is provided as indicated on the approved development plan.

    C.   *Downtown.* In Type 1 Areas of the Downtown Area, all parking shall be accessed from an alley or a street adjacent to a side yard. Unless approved by the Development Review Board, there shall be no curb cuts on streets abutting a front yard within any Type 1 Area.

    D.   *In-lieu parking program in the Downtown Overlay District (DO) and the Downtown District (D).*

        1.   *Purpose.* The purpose of the in-lieu parking program is to assist the property owners of small properties to reinvest, develop, and redevelop to the highest and best use of the property, and to accommodate different land uses throughout the life span of a development. In addition, the purpose of the in-lieu parking program is to foster a

pedestrian-oriented environment with a sustainable urban design and character for all properties in the Downtown Area, by reducing the total number of physical parking spaces on a property. Also, as specified below, fees associated lieu parking program shall be utilized for the downtown parking program and downtown tram service.

2. *Parking requirements.* A property owner may satisfy a property's nonresidential parking requirement through the City's in-lieu parking program by an in-lieu parking payment(s) made to the City's downtown parking program enhancement account for in-lieu parking credits. The regulations of the in-lieu parking program shall not be eligible for a variance. The City shall not be obligated to approve a property owner's request to participate in the in-lieu parking program.

3. *Approvals required.*

   a. The City Council shall determine whether or not to allow a property owner to participate in the in-lieu parking program based on the following considerations:

      i. New development, reinvestment, or redevelopment of the property;

      ii. The use of the property fosters a pedestrian-oriented environment with an urban design and character, and the use of public transit or the downtown tram service;

      iii. Property size and configuration;

      iv. The amount of public parking available to the area;

      v. The future opportunity to provide public parking in the area; or

      vi. Open space and public realm areas are maintained and/or parking lots convert into open space and public realm.

   b. The Zoning Administrator may administratively approve participation in the in-lieu parking program for up to, and including five (5) in-lieu parking credits, provided that the allowance is based on the City Council considerations of Section 9.108.D.3.a. The Zoning Administrator approval shall not exceed a total of five (5) in-lieu parking credits per lot.

      i. An appeal of the Zoning Administrator's, denial for participation in-lieu parking program shall be heard by City Council.

         (1) Appeals must be filed with the City Clerk no later than thirty (30) days after the Zoning Administrator issues any written denial for participation in-lieu parking program.

      ii. The City Council shall evaluate an appeal, and may approve or deny participation in-lieu parking program based on the considerations specified in Section 9.108.D.3.a.

4. *In-lieu parking credit fees.* The amount of the in-lieu parking credit fee(s) shall be established by the City Council, and may include penalty fees for late payment, legal fees, administrative fees, an interest rate to account for the time value of money for the in-lieu parking installment purchase option, and any other fee the City Council deems necessary to implement the in-lieu parking program.

5. *Use of in-lieu parking fees.* The use of the in-lieu parking fees paid to the City shall be used for the operation of a downtown parking program which may include, but is not limited to, the provision and maintenance of public parking spaces, the operation of tram shuttle services linking public parking facilities and downtown activity centers, and services related to the management and regulations of public parking.

6. *In-lieu parking payments.* Fractional parking requirements may be paid for on a pro-rata basis. The property owner may purchase, or the City Council may require in-lieu parking credits to be purchased, either as permanent parking credits or as term parking credits in accordance with the following:

   a. *Permanent in-lieu parking credits.* Parking space credits purchased under this permanent in-lieu option shall be permanently credited to the property. These parking credits may be purchased either by installment payments to the City over a fixed period of time, or by payment of a lump sum fee.

      i. Under the lump sum purchase option, purchase shall be made by the property owner through payment of the total fee, in accordance with the procedures adopted by the Zoning Administrator and a written agreement, satisfactory to the City, with the property owner.

        ii.   The installment purchase option shall require an initial cash deposit and a written agreement, satisfactory to the City, binding the property owner to make subsequent monthly installment payments. The installment purchase agreement shall not create a payment term longer than fifteen (15) years, and shall include, but not limited to, payment procedures approved by the Zoning Administrator. Payment of the lump sum in-lieu fee, or payment of the installment purchase deposit and execution by both parties of the installment purchase agreement, shall be completed prior to the issuance of a building permit if a building permit is required, or to the issuance of a certificate of occupancy.

     b.   *Monthly term in-lieu parking credits:* Parking credits obtained by payment of a monthly in-lieu fee under this option are only for the term of the activity requiring the parking and are not permanently credited to the property. A monthly term in-lieu parking credit(s) requires a written agreement, satisfactory to the City, binding the property owner to make subsequent monthly payments. The agreement shall include, but not limited to payment procedures approved by the Zoning Administrator. The first monthly payment shall be made in accordance with the agreement.

     c.   *Evening-use term in-lieu parking credits.* Parking credits obtained by payment of a monthly in-lieu fee under this option are only for the term of the activity requiring the parking, limited to uses only open for business between the hours of 5:00 p.m. and 3:00 a.m., and are not permanently credited to the property. An evening-use term in-lieu parking credit requires a written agreement satisfactory to the City binding the property owner to make monthly payments. The agreement shall include, but not limited to payment procedures approved by the Zoning Administrator. The first monthly payment shall be made in accordance with agreement.

(Ord. No. 2736, § 1, 3-7-95; Ord. No. 3225, § 1, 5-4-99; Ord. No. 3520, § 1, 7-1-03; Ord. No. 3543, § 1(Exh. 1), 12-9-03; Ord. No. 3662, § 2, 2-7-06; Ord. No. 3879, § 1(Exh. § 27), 3-2-10; Ord. No. 3896, § 1(Exh. § 6), 6-8-10; Ord. No. 3920, § 1(Exh. § 119), 11-9-10; Ord. No. 4099, § 1(Res. No. 9439, Exh. A, § 30), 6-18-13; Ord. No. 4143, § 1(Res. No. 9678, Exh. A, § 263), 5-6-14)

Sec. 9.109. - Evening-use parking.

    A.   *Evening-use parking.* Evening-use parking is parking for establishments conducting business between 5:00 p.m. and 3:00 a.m.

    B.   *Evening-use parking application* . The property owner of the served use shall file an application for proposed evening-use parking, including:

      1.   A lighting plan for the parking in conformance with Article VII.

      2.   An analysis of the location and availability of private parking spaces.

      3.   A remote parking agreement in accordance with this article if the parking is not on the same property as the served use.

    C.   *Zoning Administrator approval of evening-use parking.* The Zoning Administrator may approve an application for evening-use parking if the plans and analysis show the parking:

      1.   Is within six hundred (600) feet of the property line of the served use.

      2.   Is accessible to the served use by a direct, safe, continuous pedestrian way.

      3.   Serves the purposes of this Zoning Ordinance.

(Ord. No. 4099, § 1(Res. No. 9439, Exh. A, § 31), 6-18-13; Ord. No. 4143, § 1(Res. No. 9678, Exh. A, § 264), 5-6-14)

Sec. 9.110. - High occupancy vehicle parking.

    A.   Parking for carpools, vanpools, and other high occupancy vehicles shall be located nearest the main building entrance with priority over all other parking except for mobility-impaired accessible parking.

(Ord. No. 4099, § 1(Res. No. 9439, Exh. A, § 32), 6-18-13)

Sec. 9.200. - Off-Street Loading.

Sec. 9.201. - General regulations.

All buildings hereafter erected or established shall have and maintain loading space(s) as determined by Development Review Board approval as outlined in article I, Section 1.900 hereof and subject to conditions herein.

A.   No part of an alley or street shall be used for loading excepting areas designated by the city.

B.   No loading space that is provided in an approved development review shall hereafter be eliminated, reduced or converted, unless equivalent facilities are provided elsewhere.

C.   All loading space shall be surfaced and maintained subject to the standards of Section 9.106.C.1.

(Ord. No. 3225, § 1, 5-4-99; Ord. No. 3774, § 4, 3-18-08; Ord. No. 3896, § 1(Exh. § 6), 6-8-10)