City of Riverside
2016 Strategic Parking Plan

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RESOURCES UNLIMITED

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Riverside Strategic Parking Plan

Contents

Executive Summary

Downtown Riverside is not simply a place. Downtown represents a workplace, a residence, a tourist destination, a commercial corridor, an entertainment and dining venue, and most importantly a community. Our understanding of Downtown Riverside as a community is extremely important as we outline the recommendations for the City of Riverside Strategic Parking Plan.

The following is a document that encompasses an analysis of occupancy and demand for the existing public parking system, along with recommendations to help the City define their future strategy as it relates to parking within the downtown area. DIXON worked closely with local stakeholders and held three stakeholder outreach meetings with members of the public over a three-month period. These meetings were extremely well attended and showed that both local residents and business owners are really passionate about the future direction of parking in the City. The stakeholder engagement provided important feedback, which has been incorporated into our findings and recommendations.

The recommendations outlined within this report incorporate firsthand experiences and observations, but more importantly, the feedback from your key stakeholders. The stakeholders were representative of the community that we described and included business owners, employees, residents, other agencies, city staff and administration. The level of participation and interest was refreshing, and the engagement and commitment represented an interest to have not only an impact on the overall strategy, but to truly make a difference. Personal agendas were left at the door and stakeholder input focused on the greater good – what was best for Downtown Riverside. You have community members who care about the area in which they live, work, and play. This report outlines our findings and addresses immediate and long-term solutions for parking in Downtown Riverside.

While some of the outlined recommendations may require an incremental financial investment, it is important to highlight that the most significant investment is time. While some recommendations may be an 'immediate fix', changing overall parking behavior does not occur overnight. There is no simple, all-encompassing fix. The City must take a strategic, incremental approach towards these improvements, evaluating and assessing the overall impact of these modifications as they are implemented and applied. There is no cookie-cutter approach to parking because each city is different. This is very important as we proceed with the recommendations for Riverside. Your community has proven to be unique and each suggested change or improvement is directed toward ongoing growth and development for the City.

Remember, the first and last experience of Downtown Riverside is typically parking. We want to ensure that it is a positive, affordable and convenient experience. This Strategic Parking Plan

provides specific recommendations in order to maximize the efficiency and effectiveness of your existing and future parking supply.

The 2016 City of Riverside Parking Strategic Plan is a study of the public parking system to develop a long-term parking strategy that will maximize the efficiency of existing parking resources, address concerns about the availability of parking in downtown and plan for the future growth and development of the downtown area. The report begins with background information and a project overview, and then assembles recommendations based upon current conditions. In addition, we have included sections relating to financial analysis and funding strategies in order to help the City of Riverside fund any new technology that is required to improve the parking environment for residents, visitors and local businesses. The following is a summary of report sections included within the Strategic Parking Plan:

- Background Information includes demographic reference details regarding the City.
- Project Objectives provides the guidelines for the direction of the Strategic Parking Plan.
- Project Methodology is an overview of the parking study process.
- Occupancy Summary includes the data collection results.
- Existing Conditions & Recommendations is an assessment of how the existing parking is operating and recommendations based on current and future needs.
- Technology Recommendations includes a summary of technology advancements that can be considered by the City.
- Financial Analysis/Pro Forma describes the Financial Modeling Workbook that was created for the City to forecast parking impacts and revenue projections.
- Funding Strategies outlines the financial options available to the City for capital investments.
- Alternative Solutions reviews the potential impacts of autonomous vehicles and carsharing.
- Future Parking Developments includes the identification of potential opportunities for parking locations.
- Recommendations Summary includes a synopsis of all the recommendations detailed throughout the Strategic Parking Plan.
- Implementation is a high level summary of the recommendations along with the suggested implementation timeline and approximate cost,

The Strategic Parking Plan includes a data collection and analysis phase focusing on the parking patterns and occupancy impacts throughout Downtown Riverside. The next phase included an initial findings summary based upon an operational assessment and overview of the existing parking conditions. The remainder of the project focused on the recommendations and stakeholder outreach.

Study Map
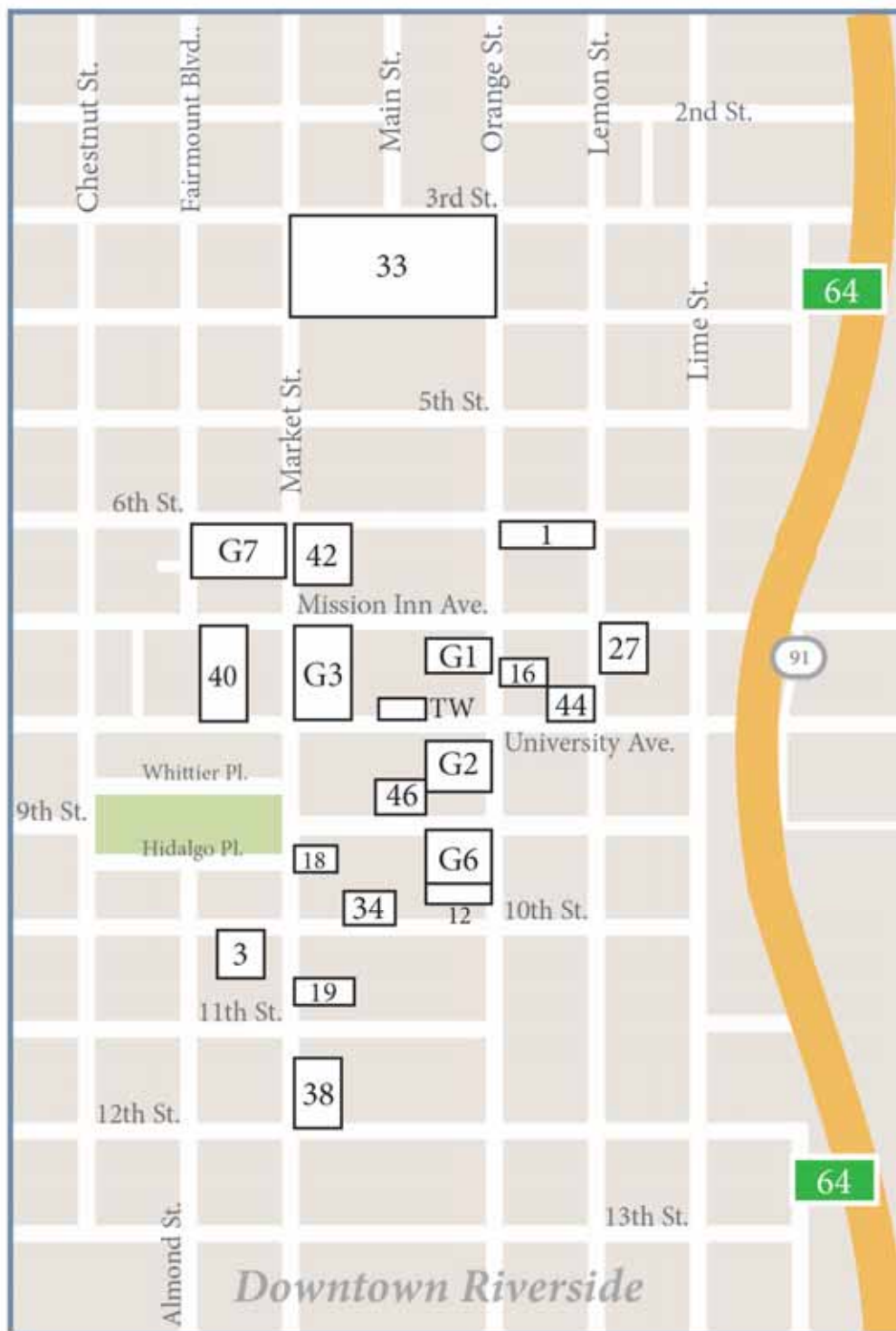
Figure 1. Study Area Map

Background Information

The City of Riverside is located in the heart of Riverside County and is known as the City of Arts and Innovation. The City has a rich military history, unique cultural centers, stunning galleries, and renowned museums. Riverside has a vibrant main street which attracts residents and visitors to restaurants, coffee shops and many events, including the world-famous Festival of Lights, the Dickens Festival, the Ghost Walk, Festa Italia, and weekly Farmer's Market. All of which attract visitors who, in most cases, drive to the downtown area and require parking. To culminate with this the City is going through a transformation with $1.6 billion worth of development planned. The increased development will not only potentially impact existing parking locations by reducing parking supply, but will also bring increased business and more people to the City, creating more demand for parking.

The City of Riverside provides paid public parking both on-street and off-street in garages and surface lots. This project included 2,602 on-street parking spaces that were evaluated during each data collection cycle. On-street paid parking is supported by 169 IPS single space meters, 79 Digital Payment Technologies multi-space pay stations and ParkMobile, a mobile payment option. Approximately 1,572 of the on-street spaces in the study area are non-metered. The City currently has five (5) public parking garages (2,044 parking spaces) and an additional fifteen (15) surface lots (1,188 parking spaces) which are dispersed in and immediately outside of the downtown core. A review of these spaces, including occupancy, was analyzed during our study and our detailed findings follow.

Demographic data helps to better understand parking in the City of Riverside. According to the most recent American Community Survey (ACS), in 2014 there were an estimated 127,060 workers aged 16 years and over in the City of Riverside. Of those, 76% utilized a vehicle to travel to work while an estimated 13% car-pooled. Therefore, in 2014 about 89% of workers that reside in the City of Riverside relied on a vehicle to get to their place of employment. In contrast, about 3% of those workers took public transit to work. The other 8% of workers either walked to work, taxied, utilized a motorcycle or bicycle, some other means of transportation, or they worked from home. Currently the utilization rates for public transit in the City of Riverside are very low, with the vast majority of workers relying on vehicles.

As for vehicle ownership, 43% of Riverside residents surveyed in 2014 reported that they had three or more vehicles available to them. The second most frequent was 38% for residents who had access to two vehicles. Roughly 17% of respondents reported that they had one vehicle, and 2% of residents said that they did not have access to a vehicle at all. Similarly, of the 2.7% of public transit users, 16% of them did not have access to a vehicle for transportation.

The average commute time to work for workers living in Riverside in 2014 was 29 minutes. For those commuting by car, the average was about 28 minutes, while those using public transit spent

on average 55 minutes. Due to the lengthy commute times currently for public transit, there is a lack of incentive for employees to switch from driving to utilizing public transit until the regional transit system is improved.

The Western Riverside Council of Governments (WRCOG) predicts that the sub-region of Western Riverside County will grow by over 700,000 people by 2035, reaching a total population of around 2.4 million. The rapid growth expected will affect Riverside, especially its transportation infrastructure, vehicle trips, and parking. Implementing more effective parking management will help Riverside prepare for and address this growth. As Downtown Riverside continues to expand and Riverside's population continues to grow, it will become increasingly important for residents to reduce their reliance on vehicles. By encouraging pedestrian-friendly and transit-oriented development, Riverside may be able to foster growth without having significant further impacts on parking.

Project Objectives

The City of Riverside retained Dixon Resources Unlimited (DIXON) to complete a Strategic Parking Plan that is intended to address and alleviate concerns relating to parking in Downtown Riverside. The plan will be used to help guide the City through future development plans and technology upgrades. After reviewing City documents and meeting with the internal City stakeholders for a project kick-off meeting, the following key strategies were defined as the focus points for the strategy development:

1. **Ensure that future development plans, including the decreased growth in parking supply they imply, are considered in future parking projections. Recommendations for providing the additional needed parking will vary but will begin with utilizing progressive parking strategies to maximize the use of existing parking supply.**

2. **Develop recommendations and strategies for technologies to maximize the efficiency of parking assets. These will include scenarios to consider how autonomous vehicles and vehicle-sharing may affect future parking needs and infrastructure.**

3. **Gauge and improve the perception of parking availability in Downtown Riverside for residents, employees, and visitors.**

4. **Recommend how Riverside can better manage parking resources in order to fund future upgrades, enhancements, and the parking program itself.**

Image 1. Wayfinding Signage

Project Methodology

In order to develop an effective strategic parking plan, community involvement and operational feedback were critical. Both internal and external stakeholders were engaged and contributed feedback that shaped this report's recommendations through a series of forums and staff meetings. An online survey was also utilized to collect additional community feedback. Meeting minutes and an overview of the survey results can be found in Appendix A and B.

Core Team

The core team for the Strategic Parking Plan included staff representatives from Public Works Parking Services. This group was focused on managing the day-to-day aspects of the project and was responsible for meeting on a bi-weekly basis and reviewing the Initial Findings/Preliminary Recommendations and Draft Strategic Parking Plan.

Operational Stakeholder Meetings

Meetings were held with key parking operations personnel from City parking operations and Central Parking, the City's parking operator, to solicit feedback and suggestions to be considered for short- and long-term planning. DIXON also hosted a feedback session for the entire parking enforcement team that provided valuable insights about the day-to-day of parking downtown.

External Stakeholder Meetings

The general public was invited to participate in three public forums to discuss the future of parking in Downtown Riverside. The first meeting (June 20, 2016) was well-attended and every attendee had the opportunity to share their thoughts about parking and identify potential improvements. At the second meeting (July 18, 2016), DIXON summarized the data collected and led an open discussion/debate regarding potential parking solutions, including infrastructure needs and possible rate structures. A third meeting (September 19, 2016) introduced the findings and recommendations of the Strategic Parking Plan and solicited stakeholders for feedback.
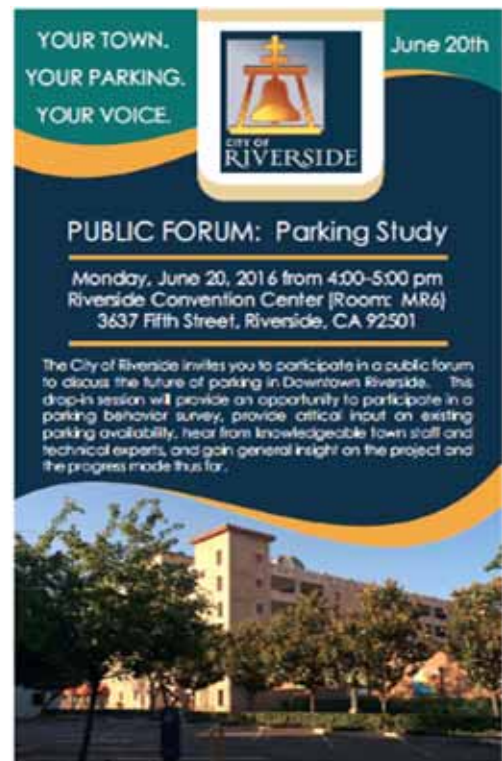
Image 2. Stakeholder Solicitation

Research Methodology

On-street parking occupancy data was collected by DIXON on two days to evaluate weekday and weekend usage. Data was collected to determine occupancy, turnover rates, and peak times during the following time periods:

Thursday, June 16, 2016		**Saturday, June 18, 2016**	
Morning	9:00am	Morning	11:00am
Mid-Day	12:00pm	Mid-Day	2:00pm
Afternoon	3:00pm	Afternoon	5:00pm
Evening	6:00pm	Evening	8:00pm

To provide a more complete understanding of parking in Downtown Riverside, Central Parking, Parking Services, and the Riverside Downtown Partnership (RDP) Ambassadors provided DIXON supplementary off-street parking occupancy data.

Parking Services collected parking occupancy data at downtown surface parking lots from Monday, July 11, 2016 through Saturday July 16, 2016 at the following times:

	9:00 AM	**12:00 PM**	**3:00 PM**	**6:00 PM**	**9:00 PM**	**12:00 AM**
Monday, July 11, 2016		X	X	X		
Tuesday, July 12, 2016	X	X	X	X		
Wednesday, July 13, 2016	X	X	X	X		
Thursday, July 14, 2016	X	X			X	X
Friday, July 15, 2016	X	11:00 AM	X	X		
Saturday, July 16, 2016	X	X	X	X	X	X

Parking Services provided occupancy data for the following downtown surface parking lots:

- Lot 1
- Lot 3
- Lot 12
- Lot 16
- Lot 19
- Lot 27
- Lot 33
- Lot 34
- Lot 38
- Lot 40
- Lot TW
- Lot 42
- Lot 44
- Lot 46

The RDP report also provided occupancy data at 12:00am for Garages 1, 2, 3, and 6 and data at 11:00pm for Garage 7 between June 1, 2016 and June 30, 2016. Additionally, Central Parking provided 2015 yearly occupancy averages for Garages 1, 2, 3, and 7.

To quantify parking deficiencies or surpluses, DIXON used the various on- and off-street data sets to thoroughly assess the City's parking utilization. Through this study, DIXON has identified the information necessary to provide effective recommendations for the current and future parking needs of Riverside.

The study area used for on-street occupancy counts was bordered by 3rd Street to the north, 14th Street to the south, Mulberry Street to the east, and Brockton Avenue to the west. This study area has a total of 1,030 on-street parking meters and off-street public spaces in garages and surface lots.
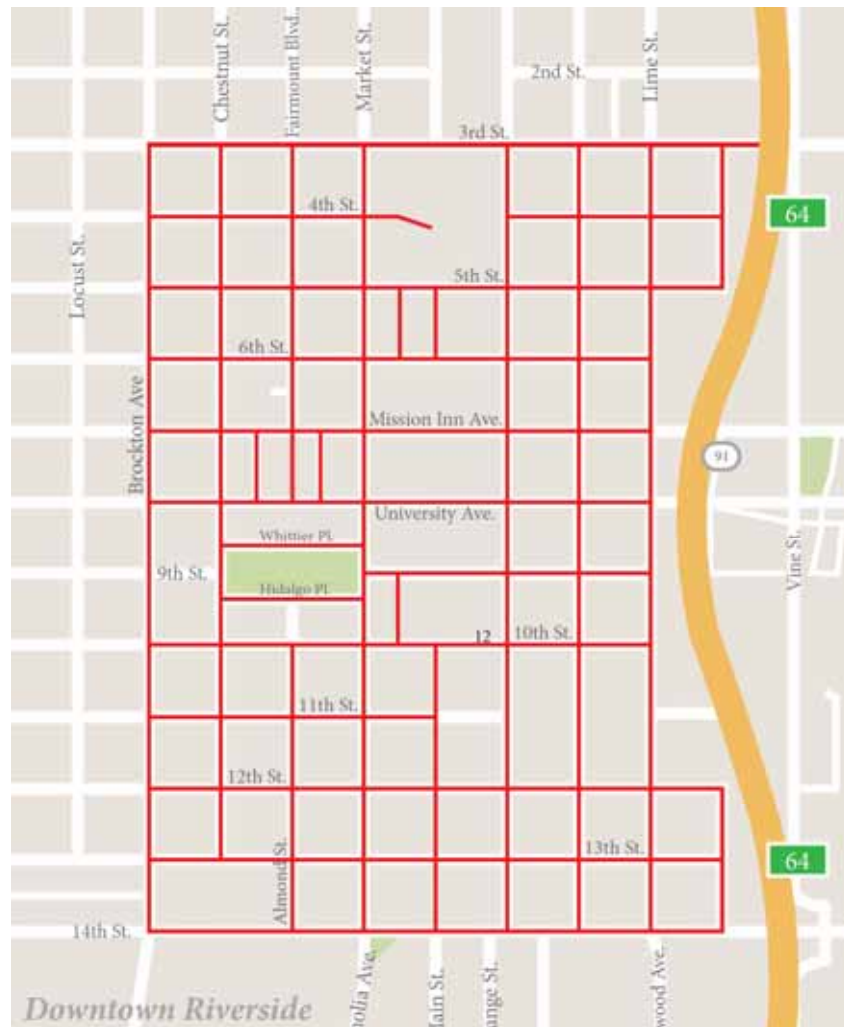
Figure 2. On-Street Study Area

Occupancy Summary

The use of on-street parking is optimized when parking occupancy does not exceed 80% to 85%, meaning at least one or two parking spaces are available on each block.

If this minimum level of parking availability is not maintained, drivers, as well as business owners, may perceive that no parking is available in the area. Therefore, streets that have parking occupancy of 80-85% or more are considered full. In Downtown Riverside, on Thursday the average observed on-street occupancy rate was 40% and on Saturday 37%, showing downtown currently has sufficient on-street parking availability.

Thursday	Average Occupancy Rate		Saturday	Average Occupancy Rate
Morning (9am)	39%		Morning (11am)	39%
Afternoon (12pm)	40%		Afternoon (2pm)	33%
Mid-Afternoon (3pm)	38%		Mid-Afternoon (5pm)	36%
Evening (6pm)	42%		Evening (8pm)	39%

Table 1. Average Occupancy Rates for All On-Street Parking

While the overall on-street occupancy rates were below the 80-85% threshold, there were some street block locations that did come close to or reach capacity. The maps on the following pages summarize on-street occupancy data by block face as well as the off-street data provided by Central Parking, Parking Services and the RDP Ambassadors.

In general, there seemed to be ample parking within a short walking distance of high occupancy areas, even during the Saturday morning Famer's Market and Saturday night near the Fox Theater. The busiest times observed for on-street parking were the evenings of Thursday and Saturday. Garages 1 and 2 were also almost at capacity around midnight on Thursdays, Fridays, and Saturdays, but the other parking garages are significantly underutilized.

Green areas on the maps represent any blocks that were below 80% occupancy, providing sufficient parking availability. Yellow represents areas that were over 80% occupancy and are at risk of being full. Red represents any areas that were at or above 85% occupancy which are full or not available. Black represents no parking spaces.

Morning

During the Thursday morning data collection, the blocks with the highest occupancy were primarily located in the area around the Riverside County Superior Court, Hall of Justice, and Family Law Courthouse. Some blocks near the Convention Center and Marriott Hotel also had high occupancy. Among parking garages, Garage 3 was the only parking garage above the 85% high-occupancy threshold.

On Saturday morning, high parking occupancy was observed around commercial areas with restaurants and shops. While on-street occupancy was high around these shops, none of the nearby parking garages or parking lots were over 80% occupied.

Thursday (9:00am)	**Saturday (11:00am)**
	Parking lot data was collected at 9:00am
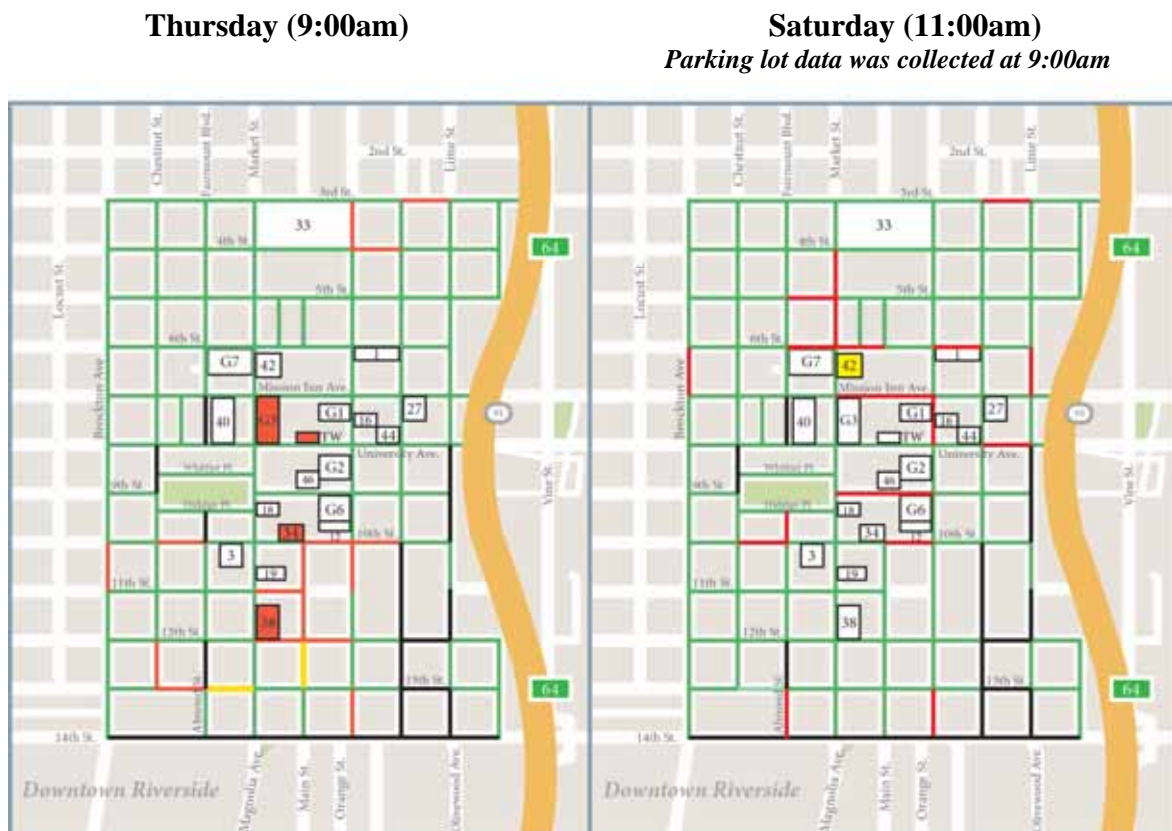
Figure 3. Morning Occupancy Heat Maps

While some block face locations exceeded the 85% occupancy threshold, there was consistently adequate available parking within one or two blocks. This indicates that in the morning there is sufficient parking availability within a short walking distance to almost any downtown destination.

Mid-Day

By mid-day on Thursday and Saturday the occupancy trends began to shift. During Thursday mid-day, parking availability surrounding the Justice Center increased and higher levels of occupancy were observed around the retail and commercial areas of downtown. Mid-day Saturday there were a few block faces with limited availability and the occupancy levels of some of the parking lots such as lot 1, 12, 16, 27, and 42 began to increase.

Thursday (12:00pm)   **Saturday (2:00pm)**
Parking lot data was collected at 12:00pm
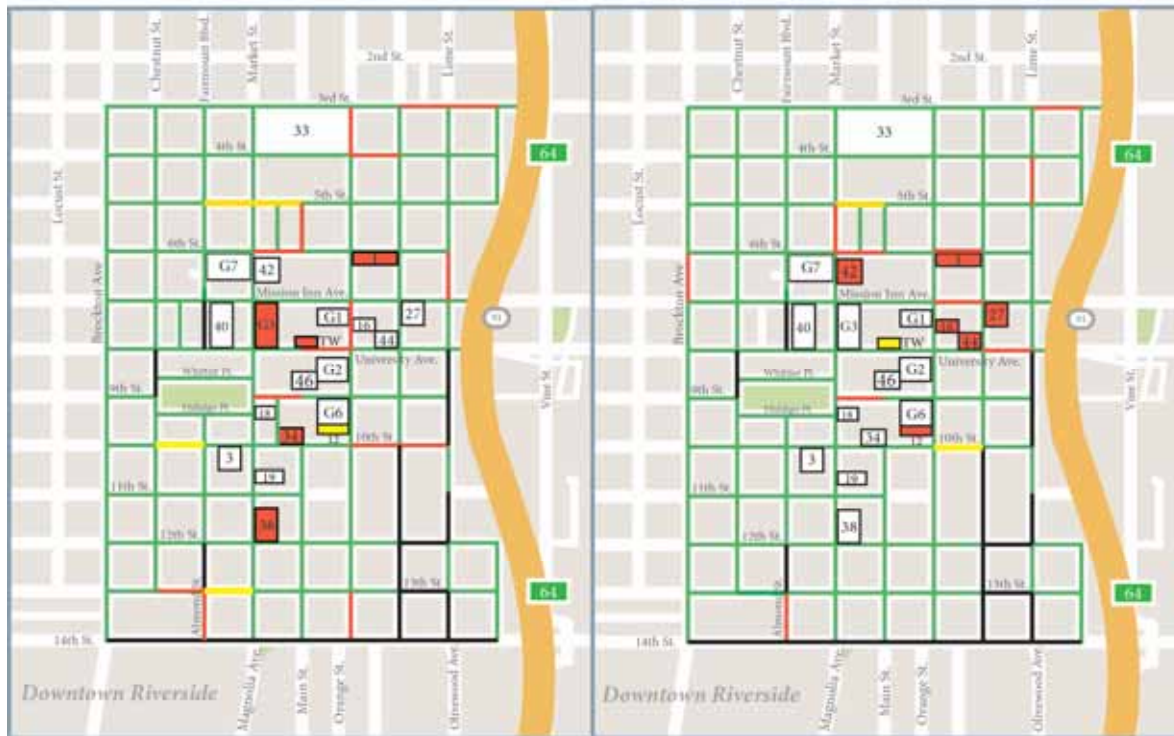
Figure 4. Mid-Day Occupancy Heat Maps

At peak occupancy times, there was consistently parking availability within one or two blocks of highest occupancy areas. Even on Thursday, when Garage 3 was close to capacity, nearby Garages 1 and 2 still had substantial availability.

Afternoon

Thursday afternoon high occupancy areas did not appear to be clustered, and no parking garages had occupancies above 80%. As a result, there was sufficient parking availability within one block of any downtown destination. Much like Thursday's data, the Saturday data showed relatively low parking occupancy. The areas that had higher levels of parking occupancy, such as around the Municipal Auditorium, Public Library, and Art Museum, were surrounded by available on-street parking as well as additional parking availability in Garage 1 and Lot 44.

Thursday* (3:00pm)   **Saturday (5:00pm**)**

Surface lot data was not collected on Thursday at 3:00pm, so Wednesday data was used   *Parking lot data was collected at 3:00pm on Saturday*

Figure 5. Afternoon Occupancy Heat Maps

Evening

Parking occupancy on Thursday and Saturday evenings was higher than all other times, in particular on-street parking. It appears that drivers prefer to park on-street rather than a garage or surface lot, even if that means circling the block to find an available parking space. On Thursday, parking occupancy was also high in the residential area south of White Park. Most of the parking demand was focused around the commercial and retail areas of downtown.

Parking occupancy in surface lots was higher on Saturday evening than on Thursday. Surface lots as well as on-street parking around retail locations had higher levels of occupancy.

<div align="center">

Thursday* (6:00pm)   **Saturday (8:00pm**)**

Surface lot data was not collected on Thursday at 6:00pm, so Wednesday data was used   *Parking lot data was collected at 6:00pm on Saturday*

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Figure 6. Evening Occupancy Heat Maps

As with other times of day, even though parking demand is higher in the evening, parking was available within one or two blocks of the high occupancy areas.
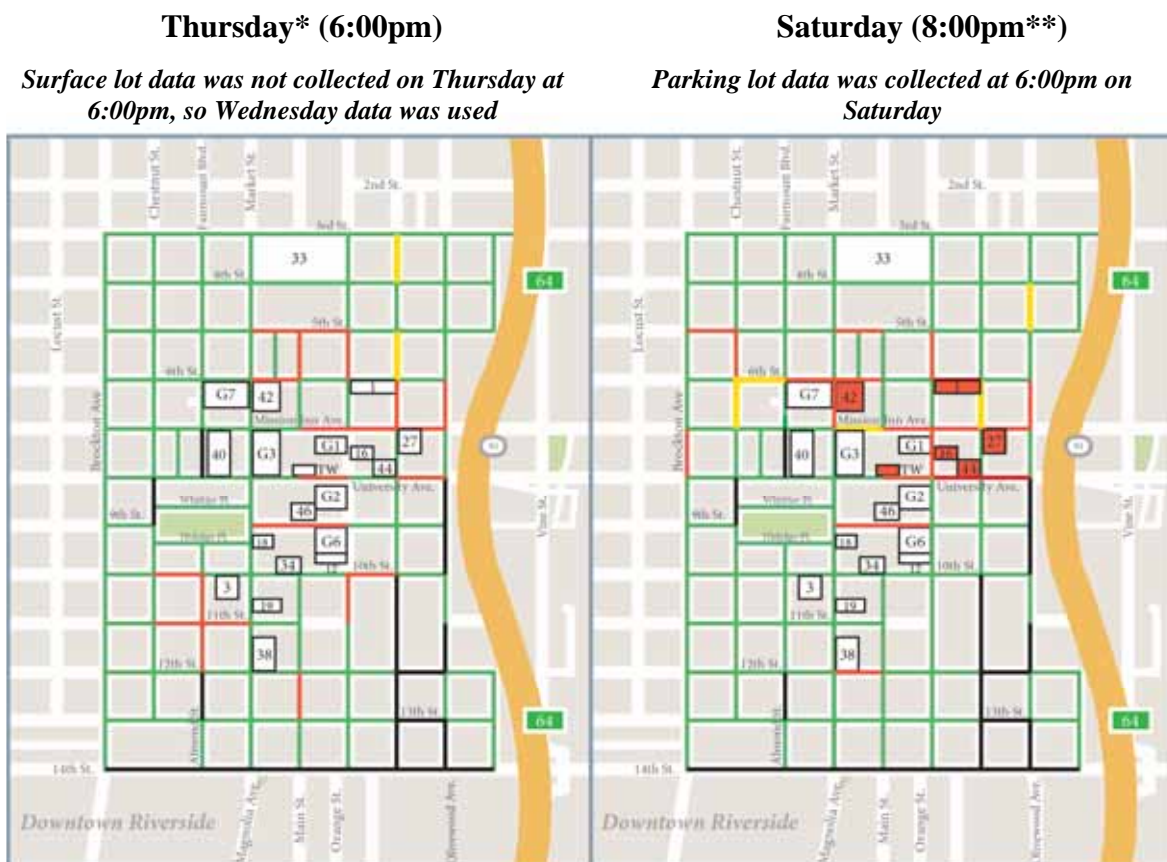
Parking Garages

The utilization of Garages 1, 2, 3, and 7 varied significantly by time of day on Thursday and Saturday. Occupancy at Garage 1 was fairly consistent throughout the day on Thursday, and peaked late, around 12:00am, on Saturday night. Similarly, Garage 2 was utilized primarily on Thursday between the morning and the afternoon. Garage 2 was primarily utilized on Saturday around midnight.
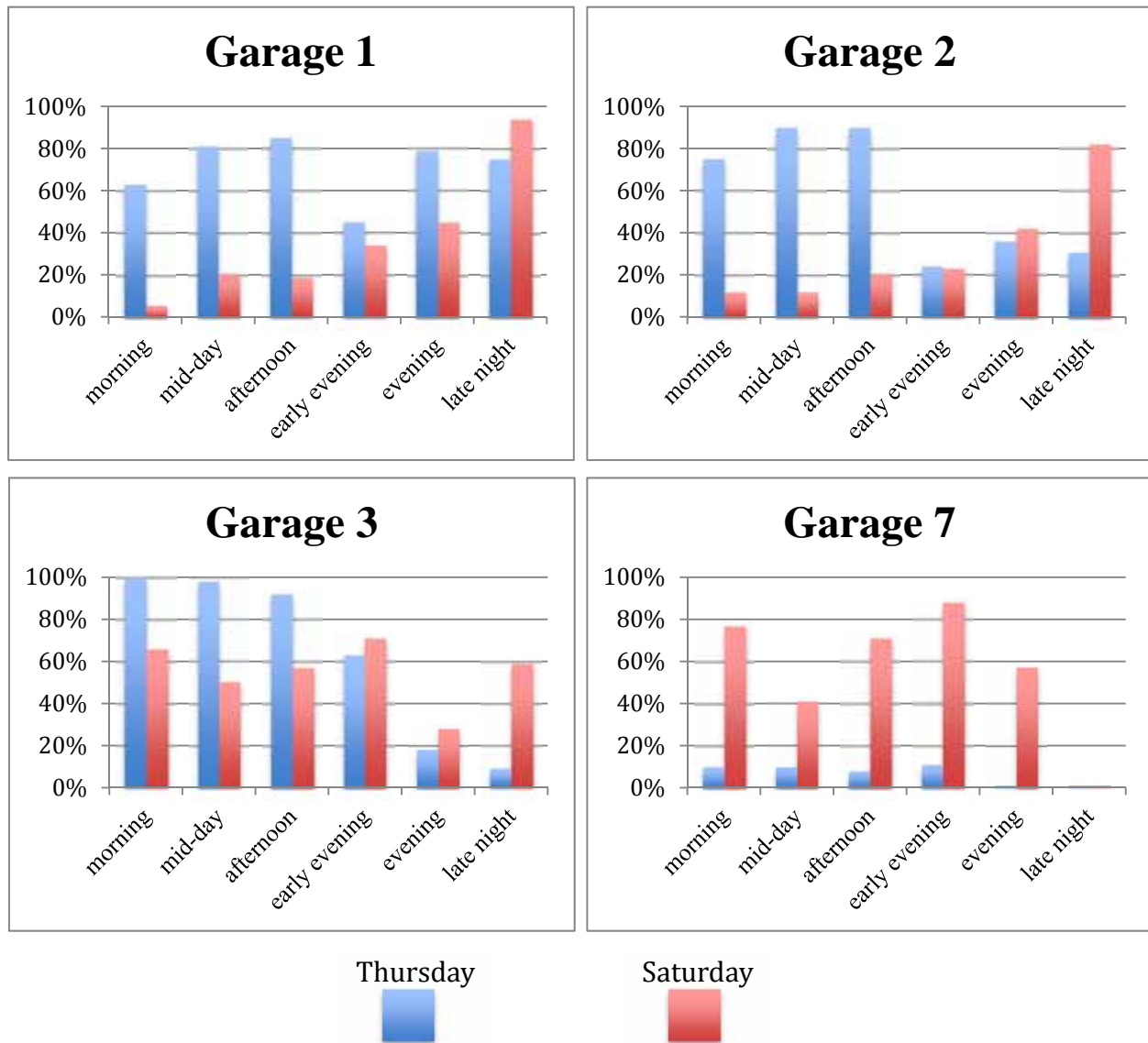
Figure 7. Garage Occupancy by Time of Day

DIXON also evaluated garage occupancy at midnight by day of week. Based on the data provided by the RDP Ambassadors for June 2016, garages are busiest at midnight on Thursday, Friday, and Saturday, but only Garages 1 and 2 approached 80% occupancy.

Garage 6, however, had almost no vehicles parked in it at midnight at any point during the data collection. Going forward, Riverside could take advantage of this underutilized asset. The unwelcoming entrance and lack of adequate signage and wayfinding are likely contributing to the underutilization. In addition, the overhead signage indicates Riverside Public Utilities customer parking on the 2nd level, however, the gated entry does not provide a ticket dispenser and it is unclear how to enter the facility as a customer. Another factor is that during the day, one must have a parking permit to park in Garage 6, but it opens to the public after 6:00pm.

Garage 7 was also nearly empty at midnight each day, as well as during the day on Thursday, and was only half full on Saturday morning and evening. Garage 7 has a significant amount of available parking, but nearby potential development projects and other potential City commitments may utilize this capacity in the short- to mid-term.

While Garages 1 and 2 consistently filled up around midnight, Figure 8 demonstrates that there is ample parking in the other downtown garages, including 3, 6 and 7. The availability of the other garages is important because it shows the need for improved wayfinding to direct patrons to nearby available parking. Though there is sufficient parking overall, patrons are more likely to favor Garages 1 and 2 for parking downtown around midnight because they are closest to most nighttime destinations.
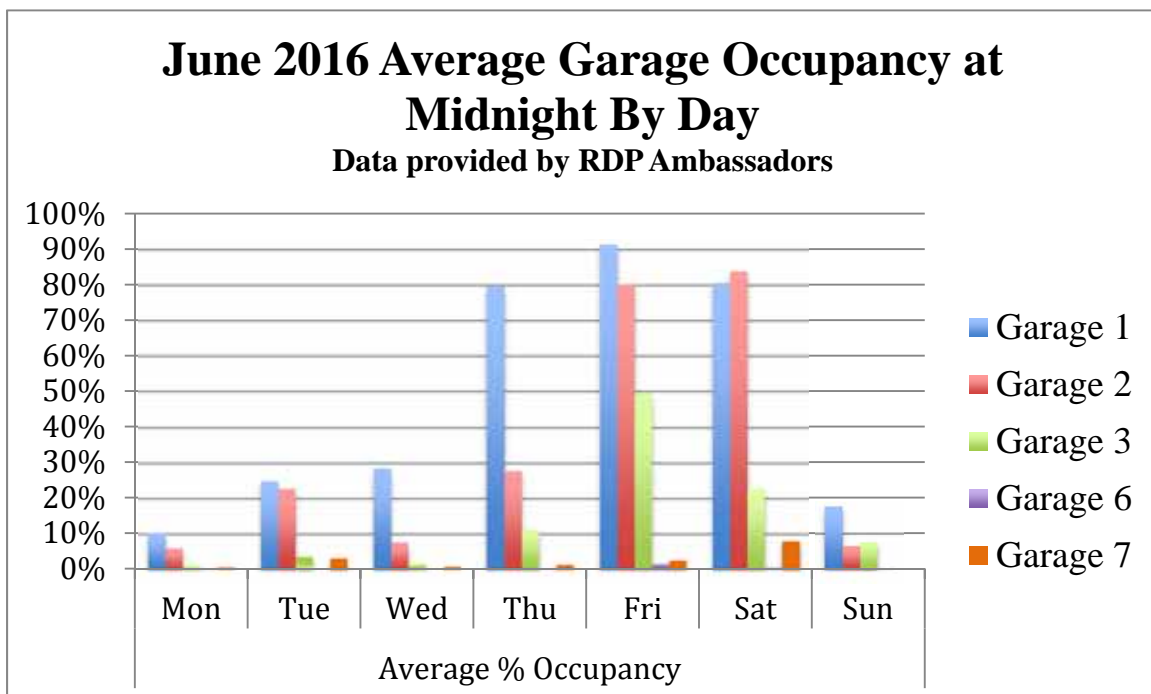
Figure 8. Midnight Garage Occupancy

Impacted Parking

When analyzing the surface lot data, it is important to consider how upcoming development projects will reduce available parking inventory by approximately 239 parking lot spaces and 102 on-street parking spaces.

- Lot 19 will be eliminated in late 2016 as well as some nearby on-street parking, due to the Chow Alley project.
- Lot 27 is scheduled to be replaced with a development project, eliminating 37 spaces in 2017.
- Lot TW will be removed during Fall 2016 to make room for the Imperial Hardware Redevelopment project.
- Lot 46 will be replaced with a mixed-use project in early 2017.
- Lot 42 will be eliminated due to the Stalder Building, which will be redeveloped in early 2017.
- Riverside Transit Authority (RTA) bus stops will eliminate some on-street parking in 2017 primarily along Market, University, and Lemon.

Nearby business owners are concerned about how reducing the parking supply might reduce access to their stores and reduce revenues. To address these concerns, Riverside can better manage demand for the thousands of parking spaces that remain to improve its utilization. Before closing parking lots, the City could identify nearby alternatives and notify the community of these designated areas. The City could also explore opportunities to encourage diverting long-term parkers from these locations prior to closures by offering incentives to relocate to alternate location, like Garage 7 or Lot 40. Proactive marketing steps prior to closing parking lots will help to minimize the effect on the community.

Stakeholders have also expressed concerns about upcoming development projects and the location of temporarily relocated parking and the elimination of loading areas. Prior to any parking closures, the City should identify and designate locations for additional temporary or permanent loading zones to facilitate deliveries and drop offs for area businesses.

Even on Thursday at 12:00pm, which is when parking demand is highest on surface lots, overall occupancy was 41%, showing lots have many spaces available throughout the day and night on any day of the week.

If all of the projected 239 surface lot parking spaces are eliminated, parking occupancy at lots on Thursdays during the day, the highest demand time, is expected to increase to 51% occupancy, meaning many parking spaces will still be available. Saturday nights are similar; the current

average occupancy of 39% would be expected to increase to about 49% after the removal of 239 parking spaces.

Lots 1, TW, and 42 had high occupancy rates throughout all data collection sessions on both Thursday and Saturday. These lots are near retailers and restaurants as well as the library. Due to the fact that Lot TW and Lot 42 both were observed to fill up and are both going to be removed as a result of development, it is especially important to plan for the displacement of these lots based upon the existing demand.

Total Surface Lot Spaces	Total Occupancy	After 239 Removed
1,179	41%	51%

Table 2. Thursday Surface Lot Occupancy at 12:00pm

Total Surface Lot Spaces	Total Occupancy	After 239 Removed
1,179	39%	49%

Table 3. Saturday Surface Lot Occupancy at 9pm

Surface Lot Occupancy at 12pm on Thursday, July 14, 2016
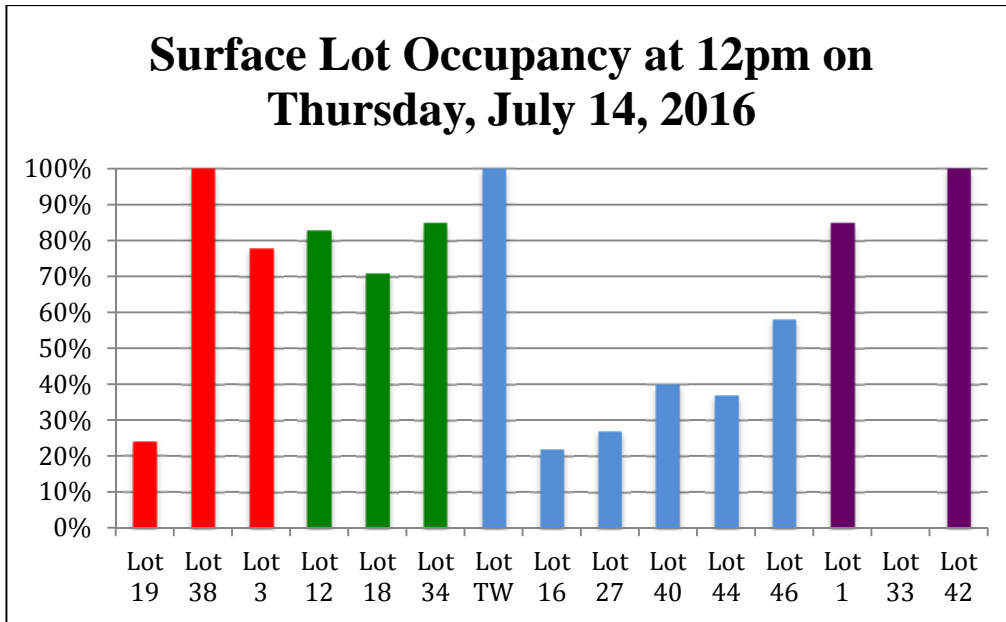
Surface Lot – Location & Occupancy by Color Zone

In order to relate the surface lot occupancy by downtown area, the charts and maps have been color coded.

Purple: North of Mission Inn Ave
Blue: University – Between 9th St and Mission Inn Ave
Green: City Hall – South of 9th St
Red: Justice Center

Figure 9. Thursday Surface Lot Occupancy by Color Zone

Color Zone Key

Surface Lot Occupancy at 9pm on Saturday, July 16, 2016

Figure 10. Saturday Surface Lot Occupancy by Color Zone
Color Zone Key

Existing Conditions & Recommendations

Operations

Recommendation:
- *Maintain current outsourcing and oversight of daily parking operations.*

The City of Riverside's primary parking operations are contracted to Central Parking. Central Parking oversees the maintenance of five City parking garages, all City-owned surface lots, as well as all paid on-street parking spaces. Responsibilities for garages and lots include daily operations, transient payments, monthly permit sales, and program management. Central Parking also handles on- and off-street parking meter repairs, maintaining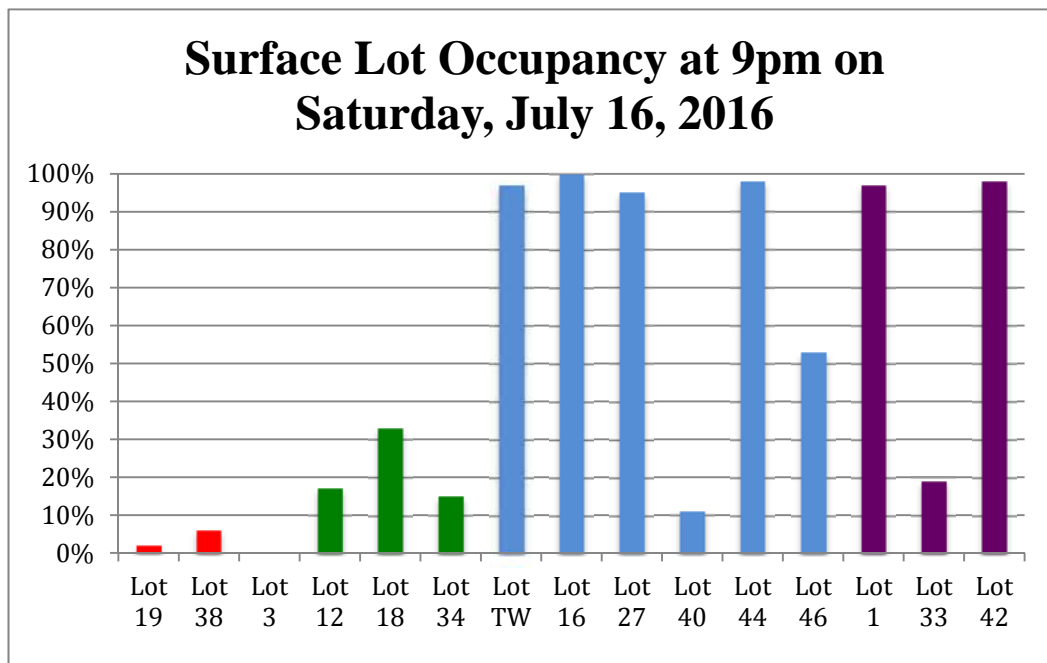 and enhancing on-street curb numbers, and all collections, reconciliation and revenue reporting for the entire parking operation. The City parking garages are staffed by Central Parking employees Monday through Friday between the hours of 6:30am and 7:00pm with a minor time variance depending on the actual garage.

Based on the initial findings and feedback, the City should consider automating the garage exits and reallocating funding for the current garage attendants to provide additional security patrols throughout the facilities. The cost estimate for garage automation equipment is approximately $220k to $750k per garage. The recommendation and estimated cost to automate the garages is outlined within the Technology section of this report. A crucial stakeholder concern was the safety and security of the parking garages, and they requested additional security and cameras at City facilities.

The outsourcing of parking operations is a support service that has been implemented by a number of agencies throughout California. Regardless of the amount of the parking operation contracted to a private vendor, the municipality maintains a level of oversight at all times. Many cities, similar to Riverside, contract private parking operators to manage the off-street parking facilities, including maintenance services and revenue reconciliation. Some cities, including Los Angeles and San Francisco outsource the parking meter revenue collections and reconciliation process. Riverside, like Newport Beach, selected Central Parking to not only collect the meter monies, but also contracts the vendor to provide maintenance support, including preventative maintenance services.

Enforcement

Recommendation:

- *Ongoing PCR training to manage parking regulations equitably and consistently with a pro-active parking enforcement approach.*
- *Expand parking enforcement staffing to include weekend and evening hours.*
- *Consider the efficacy of outsourcing the City's parking enforcement services including any legal implications.*

City personnel manage, staff and coordinate all citywide parking enforcement services. Depending on the specific zone, parking regulation times can range from 7:00am-8:30pm on weekdays and 7:00am-12:00pm on weekends. There are currently fourteen full-time Parking Control Representatives (PCRs) who work a variety of shifts from 7:00am-4:30pm Monday through Friday. Enforcement of relevant parking regulations outside of staffed shifts is handled by the Riverside Police Department. On most weekdays, there are typically two or three PCRs assigned to the downtown, up to eight assigned to street sweeping routes, and the remaining three to four available to patrol citywide and respond to calls within neighborhoods. In addition to parking enforcement responsibilities, PCRs also provide support for school zone parking enforcement, vehicle abatement, and respond to parking service requests throughout the City.

The City owns thirteen enforcement vehicles, four Segways, one GEM (electric vehicle), one T-3 (electric standup vehicle/chariot), and two bikes. Each PCR utilizes a Ticket Pro Magic enforcement handheld for writing citations and digital chalking. All citation processing and collections management are handled by Turbo Data Systems. In June 2016, based on the City of Riverside Allocation of Parking Penalties Report, 4,209 citywide parking citations were collected.

Based on meetings with the City enforcement staff and field observations, it appears that the current City enforcement staffing levels are adequate. There are minor improvements that should be addressed through consistent and ongoing training to further improve how Parking Control Representatives (PCRs) are utilized, but overall the enforcement team is organized and effective. The City recently updated their handheld enforcement devices to provide more adaptable and effective technology for the PCRs, including license plate recognition (LPR) capabilities and improved violation image quality.

In order to maintain and support a vibrant and developing downtown, parking enforcement services are a necessity. Often the general public doesn't recognize that parking citations are an educational tool to inform drivers of the regulations. The punitive nature and fine is intended to regulate that the violator does not repeat the action. The Riverside PCRs are customer service centric and utilize discretion and opportunities for grace periods, and they issue warnings in order to further inform downtown parkers of the parking policy. Parking enforcement staffing needs to be expanded to include evening and weekend coverage, especially when any of the recommended rate models are implemented. A pro-active training program will ensure that PCRs understand the existing and any new policies and that they are consistently and equitably managing the parking

rules and regulations throughout the City. Training should focus on regulations updates, policy discussions and communication skills.

There are a number of cities that have successfully outsourced some or all of their parking enforcement programs, including West Hollywood, Newport Beach and Pasadena. In all cases, the programs are closely monitored by the city staff, including assessing customer complaints and productivity. Prior to considering any outsourcing potential of parking enforcement services in Riverside, staff should solicit the City Attorney to determine the legal viability of this option. Typically, the opportunity for outsourcing results in improved service levels and overall performance, similar to when the management of the parking garages was contracted out, however, the option to outsource enforcement has been debated throughout California cities and the legal responses have varied. If the staff is interested in evaluating the potential for outsourcing, the legal response is necessary prior to further evaluation. If the City proceeds with expanding outsourced parking services, private contractors will likely introduce a variety of contract funding options including concession models and potential revenue sharing. It is important to ensure that there are no financial incentives associated with any outsourced parking enforcement contract.   This approach could be construed as a quota. Also, any outsourced parking support service agreement should include performance standards and measurable contract requirements that can be managed and monitored by City staff.

The City should consider a slight increase in the parking penalty rate schedule. Based upon a comparable analysis, the current rates are slightly below market value. The City should consider an incremental increase to ensure consistency and compliance with current parking regulations and the proposed on- and off-street rate structures in Tables 5, 6 and 11.

City	Meter Violation	Curb Zone (red, yellow, white, green)	72 hours
Riverside	$41.00	$46.00	$41.00
Anaheim	N/A	$49.00 Red/$34.00 YWG	$64.00
Chula Vista	$25.00	$35.00	$25.00
Long Beach	$49.00	$49.00	$49.00
Santa Ana	$47.00	$47.00 Red/$30.00 YWG	$53.00

Table 4. Parking Penalty Rate Comparison

On- and Off-Street Rates & Time Limits

Recommendations:

- *Continue to use a no time-limit model, supported by a tiered parking rate structure for on-street parking and surface lots.*
- *Launch a proactive education campaign to educate the public while raising rates incrementally.*
- *The initial on-street rate increase should focus on the Justice Center parking, recognizing that this area is a premium-parking zone.*
- *Use the meters to display the tiered rates.*
- *Extend all on-street parking hours of operations until 6:00pm.*
- *Consider implementing on-street paid parking requirements around the Convention Center and areas surrounding the downtown hotels.*
- *As on-street rates are increased, the off-street daily maximum should be increased as well. However, the off-street daily max should always be less than the on-street maximums.*

The parking garages are typically open for 24-hours a day, 7-days a week. The garages are staffed by Central Parking Monday through Friday. Garages 1 and 2 are staffed from 9:00am until 7:00pm. Garages 3 and 6 are operated from 7:00am until 7:00pm. Garage 7 is open from 6:00am until midnight daily and staffed from 7:00am until 7:00pm or later for live events. Garages are open but there is no staff onsite on City holidays. If the City implements garage automation technology, as further discussed in the technology section of this report, the hours of operation for accepting payments could be increased when necessary without additional labor expenses. In fact, similar to other cities, the current parking attendants could be reallocated to security and/or customer service ambassador roles.

The City of Riverside currently offers free parking on weekdays after 6:00pm, weekends, and holidays for all downtown on-street parking and most of the City-owned parking lots and garages. Additionally, Garages 1, 2, 3, and 7 provide 90-minutes of free parking on weekdays. After the first 90-minutes the parking rate increases to $1.00 per half hour, with an $8.00 daily maximum. There is also an $8.00 daily maximum for on-street parking hours of operation from 9:00am until 5:00pm except within the Justice Center on-street zone where the daily maximum is $16.50 between 7:00am until 6:00pm. It is not typical for cities to allow all day on-street parking, especially near destination locations, like the Justice Center.

The following table compares on-street parking rates in Riverside to similar municipalities.

City	On-Street Parking Meter Rates		

			Time Limit	Hours of Operation
Riverside	Downtown	$1.00/hr.; $8.00 daily max	None	9:00am-5:00pm
	Justice Center	$1.50/hr.; $16.50 daily max	None	7:00am-6:00pm
Long Beach	Belmont Shores	$0.75/hr.	2 hours	10:00am-7:00pm
	Downtown Core	$1.50/hr.	2 hours	9:00am-9:00pm
	Downtown	$1.00/hr.	2 hours	9:00am-6:00pm
	The Pike	$2.00/hr.	2 hours	9:00am-9:00pm
Pasadena	West Gateway, Old Pasadena, Civic Center, and Playhouse	$1.25/hr.	2 hours	11:00am–8:00pm 11:00am-12:00am (Fri-Sat)
	South Lake	$1.00/hr.	2 hours	11:00am-6:00pm
Santa Ana	Downtown	$0.75/hr.	None to 1 hour	8:00am–10:00pm

Table 5. On-street Parking Meter Rate Comparisons

Currently, Riverside on-street parking costs $0.25 per 15 minutes except near the Justice Center where parking is $0.75 per half-hour. These rates are comparable to those in peer cities. However, one difference is that Riverside does not have time limits at on-street parking meters, allowing people to park all day at a meter with a daily maximum rate, whereas other cities often have a time limit to park at an on-street metered parking space. If the City were to choose to implement time limits, Riverside Municipal Code Section 10.52.030 allows for the enforcement of same block parking restrictions (i.e., a vehicle is not allowed to extend their parking meter session beyond the designated time limit and the vehicle is not allowed to park within the same street block within a specified amount of time, typically not in the same day).

Rather than implement time limits, there are two main parking rate structures that the City can consider that would be effective at promoting parking space turnover while still allowing visitors to choose to park all day. These two rate models are the demand-responsive model and the tiered rate model.

The City could consider implementing demand-responsive time of day pricing for both on and off-street parking. Time of day pricing means that rates go up at the peak demand times in the high occupancy areas. Occasionally adjusting rates on each block based on demand would allow Riverside to find the lowest rate possible that achieves the target minimum level of parking

availability. Implementing this rate model in the Justice Center or around commercial and retail centers would likely increase parking space availability by giving longer-term parkers financial incentive to use lower cost parking lots or garages, and thereby increase parking availability on-street near area businesses.

Image 3. Justice Center Parking

Pricing is a proven method for reducing parking demand and increasing parking availability. While the leading practice is to adjust pricing at surface lots on a regular basis based on changes in demand, the City should apply this methodology to the highest demand area, like the Justice Center. Another approach would be to adjust parking prices based on occupancy data, raising prices in high-demand areas and lowering prices in areas with high availability to encourage utilization. The challenge with this approach is how to inform the general public of the varying rate options and locations.

Congestion studies have shown that price signals can be effective at persuading people to search for parking in areas with higher rates of availability, reducing parking search time for most patrons and reducing congestion related to circling for parking.

While a demand-responsive model can be an effective way to increase turnover, it may deter residents and visitors from going downtown for a short visit if it is during peak hours. This is why we would suggest a tiered rate model (pay-to-stay), along with no time limits, to achieve the City's parking availability objectives. A tiered rate model essentially makes parking a nominal cost for short visits to downtown, but the cost of parking gradually increases with the amount of time parked. This can also be an effective method for encouraging longer-term visitors to park in the off-street garages, thus freeing up the more convenient on-street parking spaces.

If the City continues with the current no time limit model for on-street parking meters, as recommended, the City can experiment with different tiered rate models to ensure a premium value for a parking space in the highest demand areas. On-street rates should be increased incrementally and supported by a proactive education campaign. In addition, all on-street hours of operation should be extended until 6:00pm. The City should be prepared for a public reaction and the education campaign should focus on the benefits of the rate increase that may include future facilities, enhanced garage security and increased availability.

The initial on-street rate increase should focus in and around the Justice Center. A tiered rate model would be ideal to address long term parking at this location. The suggested on-street Justice Center rate model would start at $2.00/hr. and then include a tiered increase for the subsequent time parked, which increases gradually as time passes. This rate model is based on the amount of

time spent parking rather than the time of day. Effectively, the parker *pays to stay*. Regardless of the actual values chosen, the parking near the Justice Center needs to be recognized as a premium and the on-street rate needs to be increased.

Below, Tables 6 and 7 show a suggested rate model utilizing the recommended tiered rate model format. This model does not depend on the time of day. Instead, it is based on length of time that someone parks.

Hour	Rate
1	$ 1.00
2	$ 1.00
3	$ 2.00
4	$ 2.00
5	$ 2.00
6	$ 2.00
7	$ 2.50
8	$ 2.50
9	$ 2.50
Daily Max	$ 17.50

Table 6. Non-Justice Center On-Street Suggested Rate Model

Hour	Rate
1	$ 2.00
2	$ 2.00
3	$ 2.00
4	$ 2.00
5	$ 2.00
6	$ 2.00
7	$ 2.50
8	$ 2.50
9	$ 2.50
10	$ 2.50
11	$ 2.50
Daily Max	$ 24.50

Table 7. Justice Center On-Street Suggested Rate Model

The current Riverside parking technology will support this type of rate structure. Users can be prompted at the meter to choose the total amount of time they intend to park, and the rate structure can be displayed on the meter screen, including any special event rate requirements. The posted signage can reference the parking meter display for applicable rates. The City of San Francisco has successfully implemented a similar type of rate model. There are other Southern California cities considering similar pricing models, however, we have not identified any other Southern California city that allows for extended on-street paid parking beyond a designated time limit.

The on-street rate model for the areas surrounding the Justice Center should also be addressed because it is likely that parkers will seek alternate, cheaper parking options. This rate structure also would apply to surface lots. Based upon the current occupancy statistics, the model for the surrounding areas should introduce a more gradual increase that can ultimately be increased to reflect the Justice Center model if the associated demand also increases.

Consider implementing on-street paid parking requirements in the areas surrounding the Convention Center and downtown hotels. The occupancy results demonstrated that on weekdays the street near and around the hotels and convention center experienced high demand. There is an opportunity for visitors to avoid paying the parking rates required by these facilities by parking on the nearby streets.

The City should utilize the Financial Modeling Workbook that was developed for this project to develop a rate plan that incorporates incremental increases establishing a daily maximum that also ensures the value of purchasing a monthly permit. If on-street rates are increased, this will also result in the requirement to increase the off-street daily maximum. However, the off-street daily maximum should still be lower than any on-street daily maximum in order to encourage more long term parking in off-street facilities. Based upon the July 2016 meter utilization data, if the City were to implement the suggested on -street rates, there would be over a $500,000 increase in annual parking meter revenue.

Special Events

Recommendations:
- *Develop criteria and rate schedule plan for downtown special events, including Festival of Lights and concert events.*
- *Implement a flat special event rate at all on- and off-street parking locations.*
- *Identify a designated location for drop-off/pick up and bus parking for special events.*
- *Promote alternative transportation options throughout special event planning processes.*

A tiered rate model at the meters can be easily modified for special events that impact downtown parking. Special event rates may help motivate drivers to park farther away or seek alternative modes of transportation. A flat special event rate can be integrated and implemented for both on- and off-street parking utilizing the City's current parking technology. Any flat rate should be commensurate with the value of the existing rates and any daily maximums for either on- or off-street parking locations. Promoting alternative transportation options should be encouraged throughout all levels of special event planning and promotions. For example, there are a number of cross promotions occurring with services such as Lyft and Uber that both promote the City event and their services in order to encourage other transportation sources in order to reduce parking demand. Municipalities across the country are coordinating directly with these resources in order to encourage alternative transportation. Special event planning should incorporate an accessible location for the drop-off and pick-up of passengers and a designated location for bus parking.

During the Festival of Lights, the City has charged a special event evening rate of $5.00 at all garage locations. When there is a live event at Fox Theater, a special event flat rate of $5.00 is

charged only at Garage 7. A flat special event rate should be applied across all parking facilities and on-street locations, rather than just at Garage 7. Currently drivers can circumvent the event rate by parking in nearby facilities to Garage 7, but applying a special event rate across all locations would be more equitable and help prevent congestion from drivers looking to bypass the rate.

In order to apply a special event rate, the City would need to establish criteria for when the rate would apply, the amount and the advanced notification requirements. Based upon this criteria, the City would have the option to increase special event pricing for any downtown special events, depending upon the need. For example, parking on weekday evenings for the Festival of Lights could be $5.00, but opening night and weekends, the City could charge $8.00 or higher. The proposed garage technology and existing on-street parking infrastructure can support this type of rate model. Approved special event pricing would override all other rate models, including the proposed evening rate model for Thursday, Friday and Saturday.

The overall recommendation is to apply evening and special event rates consistently at all garages, surface lots, and on-street metered locations throughout the year. It is important to keep in mind that this would require increased hours of enforcement for the additional times. Stakeholders were asked to rank the proposed recommendations at the September 19th meeting, and the introduction of a special event rate at all garages was on average the second highest priority for increasing parking revenue, while charging on weekends and evenings ranked fourth.

Evening Rates

Recommendations:
- *Implement a flat $3.00 evening rate after 5:00pm (initially on Thursday, Friday and Saturday) at off-street locations supported by automated entry and exit system.*
- *Introduce an Evening Employee Permit Program in conjunction with flat evening rate implementation.*
- *After implementing the off-street evening rate first, consider implementing an on-street evening rate later based on future evaluation.*

Based on the occupancy rates observed and the upcoming developments like Mess Hall, the City should consider charging for parking on Thursday, Friday, and Saturday evenings in all of the garages and surface lots. The proposed flat rate of $3.00 per night after 5:00pm on Thursday, Friday, and Saturday is priced to encourage drivers to continue to park in the garages instead of pushing out into the neighboring residential streets. Preserving the existing evening parking to the garages and lots is ideal, however, there is a cost and operational impact due to the volume of vehicle parking in the garages, especially Thursday, Friday and Saturday evenings. Charging a nominal rate would provide the revenue needed to sustain and maintain the parking infrastructure and facilities, including trash pickup, maintenance, security and lighting. This cost would support

the facility and service that drivers are receiving by parking in a garage. It would also assist in ensuring that facilities are welcoming and accommodating as well as meeting the customer service expectations that are supported by paid parking.

The recommendation of a $3.00 flat rate was modeled after the successful implementation of the City of Sacramento evening payment model. Sacramento implemented an evening rate model effective between 5:00pm and 6:00am. The Sacramento rate is $1.50 each half hour with a $5.00 nightly maximum charge. The suggested $3.00 flat rate is viewed as a starting point for Riverside in order to garner community acceptance and gradually transition the adopting of an evening payment model. Based upon the garage occupancy data collected by the RDP Ambassadors in June 2016, it is estimated that by charging a flat evening fee of $3.00 in Garages 1, 2, and 3, the projected annual revenue increase for only these three facilities would exceed $120,000.

The following table compares the on- and off-street evening rate models used among various California cities. The City of Long Beach and the City of Santa Monica both charge for on-street metered parking later into the evening than the other cities. Additionally, some of the cities, such as Pasadena, keep their off-street parking facilities open for 24 hours per day to charge for evening and overnight parking.

City	On-Street	Off-Street
Riverside	Free after 5:00pm	Free after 5:00pm
Berkeley	Free after 6:00pm	$1.00/ half hour 4-hour maximum Until 1 or 2am
Long Beach	Free after 9:00pm	~$1.00/ half hour $12.00 maximum Open 24 hours per day
Pasadena	Free after 6:00pm No parking 2:00am-6:00am	$1.00/ half hour $6.00 maximum Open 24 hours per day
Sacramento	Free after 6:00pm	$1.50/ half hour $5.00 maximum Between 5:00pm - 6:00am
Santa Monica	Free after 2:00am	$1.25/ half hour $17.50 maximum Open 24 hours per day

Table 8. Evening Rate Comparison

Importantly, in order to be effective, all of the suggested garage rate structures should rely upon an access control system. The City would no longer 'lift the gates' and the automated system

would calculate the monies owed based upon entry and exit times. The technology recommendation later in this document outlines an automation solution for the garages that will provide access control 24/7. This will allow the City to control, monitor and manage assets and, more importantly, maximize on missed revenue opportunities that are being lost today. For example, vehicles that may use the facility all day and exit after the attendant departs is a lost opportunity. A fully automated system will require drivers to pay for the time used.

In coordination with the implementation of an evening flat rate, the City should also consider implementing an Evening Monthly Permit that offers a low-cost monthly permit for after-hours parking for downtown employees or residents that is valid in a designated facility. The permit should be considered as a value and must be affordable (approximately $15.00 to $18.00 per month) and only valid during the designated hours (i.e. 5:00pm to 6:00am). Early entry or extended departure time would result in payment required based upon the posted fee schedule upon exit.

The City of West Hollywood has also introduced a variety of evening employee parking options including discounted permits for designated parking facilities and an Evening Meter Permit (1E Permit). The 1E Permit authorizes the permit holder to park at designated parking meter spaces between 6:00pm to 3:00am for $30.00 per month. There is also an evening parking permit for designated facilities with the rates varying from $30.00 to $50.00 per month, depending upon the location.

The City of Sacramento has successfully implemented a Discounted Employee Parking Program (DEPP) and a Part-Time Employee Parking Program (P-TEP) in order to offer a low cost parking solution for downtown employees. In order to qualify for the DEPP, an employee hourly wage must be $16 or less and they must work within the designated program boundaries. DEPP permit holders pay only $0.25 per half hour in their assigned parking garage. The P-TEP requires that an employee earn less than $22.00 per hour and work less than 30 hours per week. Similar to DEPP, after providing proof of qualifications, the annually renewed permit is valid in a designated facility and the P-TEP permit pays $0.50 per half hour and discounted rates are applied upon exiting the garage.

In order to determine permit eligibility, the City of Santa Monica has implemented a Worksite Transportation Plan that must be completed by the business to determine their available parking options. The City of Santa Monica offers substantial discounts and transportation subsidies for the use of alternative transportation modes including municipal bus passes and bikes. A monthly evening parking permit, valid daily 4:00pm to 6:00am is available for $82.50. The City also provides a discounted monthly parking permit that is available for $20.00 with proof of employment and financial eligibility. Permits are valid at specific facilities designated by the City.

There are costs associated with the implementation of evening parking rates including the need for parking facility operational support and parking enforcement services to ensure proper support and monitoring of the parking technology. Regardless of introducing evening parking rates, the existing operation should provide some minimal level of evening parking support services due to the level of activity in Downtown Riverside, however, additional support would be required if an evening fee model and permit program were introduced.

The City must also consider how charging for parking in the evenings at garages and lots will affect demand for on-street parking. Since the City already has the on-street smart meter technology, the introduction of an evening on-street rate could easily be implemented concurrently with off-street rate changes. An on-street evening rate model is a challenge to determine the boundaries, rate models and signage. It is expected that the implementation of an evening rate model for both on and off-street will not be well-received by the community. An incremental plan to determine the impacts of the change in policy would be more manageable for the community and city staff. By implementing the off-street flat rate first, staff can evaluate the impacts on both on-street parking and the surrounding residential neighborhoods. Based upon the growing popularity of Downtown Riverside, future evaluation will be needed to extend the evening paid model to on-street parking spaces. However, this should not prevent the City from implementing a flat rate model for off-street locations.

Validation

Recommendation:
- *In the future, the City should consider limiting the amount of discounted parking that can be purchased by a business.*

The merchant validation program provides a 50% discount from the regular cost to park in a parking garage. However, current participation in the merchant validation program is low. Because we recognize the value of the legacy usage of some companies, and the marketing opportunity for the City, we suggest maintaining the validation program. There are several businesses that rely upon this program, and based upon the suggested parking rate changes, it is likely that the program utilization will also increase. In the future, the City may need to consider and weigh the impacts of limiting the amount of discounted parking that can be purchased by a business.

Token Program

Recommendation:
- *Assess the level of participation in the token program in the future to determine whether to limit token purchases.*

Businesses may also purchase on-street parking tokens which they can distribute to their customers. The discounted Token Program is supported by the City and the Riverside Downtown Partnership (RDP). Tokens are valid at the on-street parking meters and the tokens are sold in bags valued at $100 of parking time. The first bag is discounted to $25 and additional bag can be purchased for $50 each. There is currently no limit to the number of bags that a business can purchase at $50. While participation in this program is currently low, the suggested rate increases could result in an increased demand for tokens. The City should consider if maximum purchase thresholds need to be established for the token program or, at a minimum, establish qualification criteria for merchants to participate in the program if demand increases.

Parking Permits

Recommendations:
- *Eliminate reserved permit parking spaces and create a standard permit parking program with designated permit parking zones.*
- *Permit zones in garages should be on the upper floors.*
- *Permit pricing should vary by location based on demand and utilization.*
- *The initial permit rate for Garage 3 should not be less than $90.00 per month.*

Parking permits can be purchased for the following parking garages and surface lots:

- Garage 1
- Garage 2
- Garage 3
- Garage 6
- Garage 7
- Lot TW
- Lot 3
- Lot 12

- Lot 46

- Lot 16
- Lot 18
- Lot 19
- Lot 27
- Lot 40
- Lot 42
- Lot 44

The monthly unreserved permit cost is $60 per month and reserved parking spaces in the garages cost $90 per month. The reserved parking spaces in the surface lots also cost $90 per month, but the monthly permit spaces in the surface lots are $40 per month. The last time the price of the monthly permits was raised was in 2010. Currently permits are valid between 5:00am and 6:00pm. Outside of those hours, permit parking spaces are available to the general public unless otherwise noted. Currently there are 151 requests on the waitlist to obtain a permit for Garage 3. This is the highest number of all garage and surface lot waitlists, indicating that Garage 3 would still be in high demand if the prices were to be increased. Surface Lot 42 has the second highest waitlist at 71 requests.

It is recommended that the City eliminate reserved parking spaces and create a standard permit program with designated permit-only zones within each garage, typically the upper or basement floors. By eliminating reserved parking spaces there will be better utilization of all parking spaces within the parking facility. Similar to the suggested on-street rate model, the permit pricing structure should be determined by garage location and further based on demand and utilization. This would both increase revenues to help cover the costs of operating and maintaining the current facilities and encourage drivers to park in underutilized garages or lots. As a result, more spaces would likely be opened up in the busiest garages for short-term hourly parkers. The City of San Jose encourages hourly parking on the more accessible floors and monthly permit parking is required on the underground basement floors and the upper levels of the majority of the mixed use (permit/hourly) garages.

By eliminating reserved parking, the City could demonstrate a minor saving to existing users at non-demand location, however, based upon the existing waitlists, the suggested permit rate structure and any cost savings should be based upon location. For example, the average of the current permit reserved/non-reserved rate is $75.00, this would be an ideal starting price for any monthly permit at Garages 1 and 2. Yet, based upon demand, the initial rate for any Garage 3 permit should be $90 monthly.

Garage Restrictions

Recommendations:
- *Eliminate the 2-hour parking limit restriction signage in the garages.*
- *Consider prohibiting parking on the lower floors of garages before the start of business hours.*

In addition to eliminating reserved spaces, based upon the suggested hourly garage rate structure described later in this report, the City should eliminate the 2-hour parking limit signs posted within the garage.   Based on feedback from the PCRs, the posted time limits can be difficult to enforce within a garage. The suggested rate model should actually encourage more long term parking in the garage facilities. Rather than impose a time limit, the City of Ann Arbor, MI installed *No*

Parking between the hours of 7:30am to 9:30am signs on the lower garage levels in order to discourage downtown employees from parking on the lower floors. It was efficient and effective for parking enforcement officers to monitor the facilities and addressed the overall concern of maintaining the lower levels for short-term usage.

The City of Riverside should consider adopting this restriction to address this similar issue. This would help prevent employees from taking up the convenient downtown parking, and free up the spaces for visitors coming downtown to shop or eat. One of the arguments against restricting lower floor parking was that some of the local businesses that cater to early morning services, however, the occupancy data collected demonstrated that there was ample parking during the early morning hours. A few lower floor spaces could be designated for short time limits, however, similar to on-street, the parker would be required to pay for parking. Maintaining higher rates of turnover in the lower floors of the garages helps the majority of visitors and consumers find parking more quickly, maintaining the long term parker on the upper floors and it makes the garages seem less full.

Surface Lot Permits

Recommendations:
- *Surface lot rates should vary based on demand and location.*
- *The surface lot monthly permit rate should increase by at least the same percentage as the monthly garage permit.*
- *Develop a long-term permit rate plan to incrementally increase permit rates annually.*

The monthly permit rate for surface lots also needs to be addressed in order to also be commensurate with any suggested on-street rate increase and should also be priced based upon demand and location. Similar to the garages, there should be no reserved parking spaces otherwise it limits capacity and space availability. The surface lot monthly permit rate should increase at least by the same percentage as the monthly garage permit. Based upon the current waitlist and demand for Lot 42, the permit monthly rate percentage increase should be consistent with the rate increase applied to Garage 3 monthly permits.

This approach to changing permit rates should define how rates will be increased at the most popular garages. Riverside could explore developing incentives beyond lower prices to encourage those on the wait list to park at alternative locations, such as Garage 7, that are underutilized. The City should consider both increasing the cost of monthly permits for the high-demand garages and parking lots, while offering a more reduced rate permit for the underutilized facilities. For example, maintaining the current $60 monthly permit option for Garage 7 could provide an appealing alternative to some parkers, provide a smoother public transition and reaction to the suggested rate increases. This approach, combined with an alternate transportation program that

promotes rideshare, carpool, and Riverside GoTransit will be an opportunity to lower demand at the busiest garages. Regardless of the suggested rate change, the City needs to implement a long term permit rate plan that incorporates incremental, annual and progressive rate increases for the foreseeable future.

Location	# On Waitlist
Garage 1	11
Garage 2	7
Garage 3	151
Garage 7	None
Lot 3	14
Lot 12	None
Lot 16	None
Lot 18	None
Lot 19	1
Lot 27	None
Lot 40	2
Lot 42	71
Lot 44	9
Lot 46	5

Table 9. Permit Waitlist (July 25, 2016)

90-Minute Garage Parking

Recommendations:
- *Gradually eliminate the 90-minutes of free parking offered in the garages and promote the current merchant validation program.*
- *The City could consider cutting the allotted free time in half to 45-minutes prior to completely eliminating the free parking.*

Currently, Riverside offers 90-minutes of free garage parking during operating hours. Also, due to the fact that the garages are not automated (the gate arms are raised after hours) and parking is free after 5pm, strategic parkers can park all day and simply wait out the parking attendant's departure, usually around 6:45pm, to leave the facility without paying. Stakeholders also noted that some people park for 90 minutes and simply depart the facility and reenter the facility in order to recycle their entrance time to avoid paying for parking. There are many opportunities to avoid paying for parking in Riverside, and these decrease City's revenue and increase parking occupancy. There

are license plate recognition (LPR) solutions that can address this issue, however the technology is expensive and not 100% accurate. The simplest and most effective approach to address vehicle shuffling is to eliminate free garage parking.

The City has many options to improve how it manages its off-street parking assets. The recommended approach is to eliminate the free 90-minute parking option and promote the current merchant validation program. The City is losing almost $200,000 of annual revenue based upon the 90-minute free of garage parking (based upon the 2014 assessment completed by Central Parking). The existing merchant validation program provides a 50% discount from the regular cost to park in a parking garage. By eliminating the free 90-minutes, this would be an opportunity to engage local businesses and allow them to promote their locations with discounted parking rates. This merchant validation program could also be utilized for surface lots utilizing the existing parking pay stations. Also, the discounted parking token program provides a tremendous value to participating merchants for on-street parking. Lastly, the City's current mobile payment vendor (ParkMobile) offers a merchant validation program that they promote and market to local business, which can be provided for on-street parking at no additional cost to the City. However, currently less than 5% of your on-street revenue is generated from mobile payment, therefore a substantial outreach and marketing campaign, provided by your vendor, would be necessary if the City opted to implement this complimentary service. The Financial Modeling Workbook provides the detail and analysis of adjustments to the free parking model and the forecasted increase in revenue

The City could consider cutting the amount of free parking currently granted in half from 90 minutes to 45 minutes. However, the issue of downtown free parking was an active topic of discussion at the stakeholder meetings and the stakeholders ranked the elimination/reduction of free parking in the garages the highest priority method to increase funding to support new facilities and improved security in the current locations. The suggested time is simply a starting point in order to adapt the community to less free time provided. Ideally, the City will eliminate free parking in any garage, value the parking asset and rely upon the existing merchant validation program.

Examples

The following are findings from other downtown parking operations and how they have funded their free parking programs. The current Riverside free parking option is funded by the Parking Fund. The City of Glendale is similar to Riverside because the garage structures were built when the Redevelopment Agencies were prevalent in municipal government. Like Riverside, the Glendale Parking Fund pays for the garages and the Fund is made up of revenues from all parking sources, including meters, garages, lots, and citations. Based upon the Glendale 90-minute free policy, the garages are subsidized by other city revenue. The estimated annual revenue increase

of $200,000 in Riverside could support necessary amenities like additional security, lighting and maintenance support.

The City of Oakland currently offers no free parking options. However, the City initiated a Flex-Parking program within one of their parking districts. The Flex-Parking program offers 20 minutes free in designated facilities in support of the upcoming On-Street Flex Parking program that provides demand-responsive pricing adjustments. The City, with the support of the local business community, is using prices instead of time limits to manage the on-street parking resources. The On-Street Flex Parking program allows parkers the option to stay longer, but they pay for the convenience. The City reports that the higher prices encourage more turnover and leaves more spaces open near businesses.

The City of Santa Barbara continues to offer 75 minutes of free parking in their Downtown Parking Zone. In the late 1980s, the City Enterprise Fund was established based upon the Streets & Highways Code, Parking & Business Improvement Area (PBIA). The PBIA is a defined downtown area that has a parking assessment levied upon businesses. It was established to help downtown businesses compete with other nearby business owners who provide free parking. The assessment pays for a portion of the 75-minute free period, but does not cover all of it. The parking assessment owed by each business varies. There is an established category and rate schedule (Rate x Zone of Benefit x Parking Credit = Assessment Amount).

The following table compares the amount of free garage parking provided by a series of California cities that have paid off-street parking.

City	Free parking?	How many hours?
Riverside	Yes	90 minutes
Anaheim	Yes	120 minutes (with validation)
Berkeley	No	0
Glendale	Yes	90 minutes (with validation)
Long Beach	Yes	120 minutes
Oakland	No	0
Pasadena	No	0
Sacramento	No	0
Santa Ana	No	0
Santa Barbara	Yes	75 minutes
Santa Monica	Yes	90 minutes

Table 10. Off-Street Free Parking Comparison

Alternate Rate Structure

Recommendation:
- *If the City wishes to continue to provide free parking, the free parking should apply to only the third or fourth hour.*

Parking management decisions strike a tough balance. Free parking is intended to attract commerce and visitors to the City. However, there is a populace that abuses the system and takes advantage of the implemented policies thereby detracting from the intended objective of free parking. Based upon the current and future demand of the off-street facilities, the City needs to make a parking management decision and determine whether or not providing any parking at garages at no charge is an effective strategy to achieve the Downtown development and growth objectives. If providing free parking is desired, one short term approach would be instead of offering the first 90 minutes free, the City could offer, for example, only the third or fourth hour free of charge. This would encourage patrons to extend their visit in downtown. This rate structure could likely be implemented with the existing gate arm revenue control equipment and would be easily programmed into an automated solution.

As the City considers parking policies, it is important to note that privately operated facilities do not offer free parking. Parking is a recognized asset and the value of the asset needs to be recognized by the City. This is another example why the City should evaluate this offering and consider alternative approaches or rate options.

Off-Street Rates

Recommendations:
- *Implement an escalated rate model for off-street parking based on location and demand.*
- *Eliminate free parking and implement a low rate for the first three hours of parking and escalate for the remaining time.*
- *Increase daily maximum rate to be consistent with other Southern California cities.*
- *Establish a distribution model for the anticipated revenue increase. Allocate 50% to fund future parking developments, 25% for current enhancements, and 25% to support the existing operation.*

The following table compares Riverside's current off-street rate with those of other similar municipalities.

City	Off-Street Garage Rates Comparisons	
Riverside	Garages 1, 2, 3 & 7	First 90 min free $1.00/ half hr. $8.00 daily max
Long Beach	City Place A, B & C	First 2 hr. free 2 hr. 20 min = $2.00; 2 hr. 40 min = $2.75; 3 hr. = $3.50; 3 hr. 20 min = $4.00; 4 hr. = $5.00; $1.00 for every 20 min; $12 daily max
	Civic Center	First 30 min free 50 min = $1.75; 1 hr. 10 min = $3.50; 1 hr. 30 min = $5.25; 1 hr. 50 min = $7.00; 2 hr. = $9.75; $10 daily max
	Courthouse & Broadway	$1.50/15min; $10-$12 daily max
Pasadena	Delacey, Schoolhouse, Marriot, Del Mar	$2.00/hr.; $6.00 daily max
	Marengo, Paseo Colorado, Los Robles	$1.50/half hr.; $6.00 daily max; 90 min free with validation
	Plaza Las Fuentes	$1.75/15 min; $15 daily max
	Playhouse	$1.50/hr.; $7.00 daily max
	Shopper's Lane (surface lot)	$2.00/hr. first 90 minutes free
Santa Ana	Garages A, B, C, D	$0.50 (first 30 mins); $1.00/hr.; $7.00 daily max

Table 11. Off-Street Garage Rates Comparisons

The proposed off-street rate model will eliminate free parking in the parking garages. An escalated rate model could be introduced that offers a low rate for the initial parking time, similar to the on-street suggested tiered rate model. For example, $1.00 for the first hour with a tiered increased for the later hours for an all day stay. This increase is an opportunity to develop a model that is appealing and accommodating but also recognizes that parking is a value asset that must be maintained and supported. Also, similar to the suggested on-street rate model, the daily maximums for all garage facilities need to be increased consistent with other Southern California cities. The rates should be established based upon location and demand. For example, Garage 7 could offer a lower daily maximum compared to the premium daily rate at Garage 3. The proposed off-street rate structures were developed after assessing the comparable cities' rates and daily maximums outlined in Table 10. Additionally, the off-street rate outlined in Table 11 has lower daily maximums than the suggested on-street rates in order to encourage long-term parkers to utilize the garages.

Hour	Rate/Hour
1	$ 1.00
2	$ 1.00
3	$ 1.00
4	$ 3.00
5	$ 3.00
6	$ 3.00
Daily Max	**$ 12.00**

Table 12. Proposed Off-Street Rate
(Garages)

A new rate structure could be efficiently supported by automated Pay on Exit technology that would include upgraded access control equipment at the entrance or garages, supported by parking kiosks located in and around the garages. The Pay on Exit solution may incorporate the suggested rate structures as well as an option to charge for Special Events and evening rates when needed. This solution would also allow for validations and discount codes such as the merchant validation program. Automated Pay on Exit is described later in the Technology section of this report.

Rather than increase the daily maximum at all of the parking facilities, the City should consider a variable daily rate structure for the different facilities based upon parking occupancy. By increasing hourly rates at the busiest garages and lowering hourly rates at underutilized garages, such as Garage 7, the City can redistribute demand to open spaces in some garages and increase utilization in others

Based upon the suggested on and off-street rate models, the City should establish a distribution model for the anticipated increase in revenue. It is recommended that 50% is allocated into a fund for future parking development (i.e. a new structure), 25% for current enhancements (i.e. security, technology improvements, lighting) and the remaining 25% to support the existing operation.

Zoning

Recommendation:
- *The City should not lower parking ratios requirements at this time.*

Chapter 19.580 of the Riverside Municipal Code includes parking and loading regulations. These regulations are meant to minimize traffic congestion, increase pedestrian and motorist safety and

emergency access, maintain a sufficient supply of parking, and ensure compatibility between land uses. The design standards established by the Municipal Code are sufficient at creating a pedestrian-friendly downtown.

Parking ratios are established in Table 19.580.060 of the Municipal Code. Some examples include a single-family dwelling, which requires 2 spaces within a private garage per dwelling unit, while a multiple-family dwelling requires 1.5 spaces per dwelling unit with 1 bedroom or 2 spaces per unit with 2 or more bedrooms. A hotel requires 1 space per guest room, and offices are required to provide 1 space per 250 square feet of office area.

Based on the City's parking supply and utilization, it is not recommended that the City lower parking ratios at this time. However, as the public transit system continues to develop and the density of Downtown Riverside increases, the City may want to evaluate the potential benefits of lowering parking ratios where appropriate in the future. When creating a walkable and affordable downtown, it is important to understand how parking ratios can affect development patterns. To avoid spillover parking, parking ratios should only be lowered in cases where it is appropriate based on walkability, public transit accessibility, overflow parking proximity, and carsharing opportunities.

Signage and Curb Paint

Recommendations:
- *Consider posting on-street parking regulation signage at the beginning and end of the associated block faces.*
- *Consider pairing curb paint with curb markings or regulatory signage.*

Based on field observations and PCR feedback, parking signage and curb markings could be improved in some areas of the City. Parking regulatory signs were not always posted in an easily identifiable location. There is typically only one regulatory sign per street block face, and while this is valid signage and may be aesthetically pleasing to the community, it may be more difficult for the driver to understand the parking rule.

Image 4. Street Signage

The City should consider that on-street parking regulations have a sign posted at the beginning and end of the associated block face in order to ensure that drivers are aware of the parking rules for that street. On 13th Street and Brockton (across from the school) there is only one posted sign at the entrance of the street that applies to the whole block. As pictured (Image 4), while this may seem a minor concern, consistency of signage allows effective enforcement of the parking regulations and a better customer experience. Proper signage educates the driver and promotes compliance throughout the City.

Furthermore, while California Vehicle Code 21458 only requires curb paint, in order to encourage compliance, the City may want to consider pairing curb paint with either regulatory curb markings or a regulatory sign if it is a colored zone to make the enforcement criteria clear to the driver.

Image 5. Curb Paint

Even though the current conditions are enforceable, signage clarifies the enforcement regulation for both the driver and enforcement personnel.

Valet Parking

Recommendations:
- *Develop city policy for regulating valet operations.*
- *Consider utilizing valet service for special events and to support the potential development growth of the City.*

It does not appear that the City has any policies or regulations regarding valet operations. Based upon the projected developments, it is recommended that the City develop a city policy regulating the requirements for valet operations in the City. The City of Beverly Hills has a successful commercial valet program and the City could model their policies based upon the experiences and lesson learned of an established program, focusing on the requirement of valet parking locations.

With the upcoming opening of the Mess Hall project, the City should anticipate the need and be prepared to address the potential demand for parking. In San Diego, when the Liberty Station Public Market opened, the plan for parking could not address the immediate demand. Very quickly, the facility manager implemented a valet parking operation in order to minimize frustration and improve the customer experience. This is a very important factor that must be considered in preparation for facilities like Mess Hall. The first impression of new customers must be positive in order to encourage a return visit. Valet parking would be an ideal fit and the City needs to ensure that the policies are in place in order to manage and operate efficiently.

Wayfinding

Recommendations:
- *Improve wayfinding signage by making them consistent and easy to notice.*
- *Direct drivers from the primary arteries to the entrances of parking garages, especially for Garage 7 where the entrance is difficult to locate.*
- *Make sure signage for Garage 6 clearly communicates public parking after 6:00pm.*

Wayfinding signage should be improved significantly throughout Downtown Riverside. Available parking locations are not clearly communicated to drivers. The type of signage varies throughout the downtown area and the exterior markings vary by facility. Garages do not maintain consistent markings and, as a visitor to the City, it is difficult to locate the entrances to the available public parking facilities. While the digital counters are beneficial, they are often not noticed until a driver passes the entrance which contributes to further congestion issues.

Images 6 and 7. Inconsistent Garage Signage

Not only is the entrance to Garage 7 difficult to locate (off Fairmount Blvd), the facility has minimal markings to indicate or advertise that it is a public parking facility. While the entrance does include a digital counter display sign, there is no other signage promoting garage access. Enhanced signage on the facility and at the entrance could help increase utilization of this garage location. And, more importantly, wayfinding signage directing drivers from the primary arteries (Mission Inn Ave, University Ave, and Market St) would be helpful and likely increase demand at this location.

Image 8. Garage 7 Entrance

As mentioned earlier, the Garage 6 entrance signage also needs to be improved. Existing signage does not clearly communicate that public parking is allowed after 6:00pm. Garage 6 access is restricted throughout the day and only allows permit parking, but after 6:00pm it is open to the public. The occupancy results from the off-street data collection confirms significant underutilization of Garage 6 despite its proximity to Garages 1 and 2, which are consistently occupied at night. The existing signage and minimal exterior markings at this location should be improved to make it clear to drivers that the facility is open to the public after 6:00pm. In the evenings and on the weekends, the overhead signage should clearly demonstrate that public parking is available. The current signage does not promote evening access or availability to the general public.

Image 9. Garage 6 Entrance

Technology Recommendations

This section outlines technology solutions that incorporate the Strategic Parking Plan Objectives while optimizing parking operations. The recommendations incorporate sustainability, innovation, and monetization to provide accessible, efficient, and convenient parking solutions. In order to implement new technology, the City should consider opportunities to evaluate and test infrastructure and service solutions prior to any full-scale implementation or solicitation. With this understanding and the fact that parking technology is expensive, this section will outline a parking technology roadmap for use with both short and long term planning. A technology roadmap will make it possible to manage, track, and visualize the future of the City's parking operations. When considering parking technology, there are five core functional areas that should be evaluated:

- Financial analysis
- Operations
- Asset management
- Workforce management
- Maintenance

Each of these functional areas will provide a critical foundation for the development and future planning of the City's parking solution. Whether implementing demand-responsive rates, attendant-free garages, or purchasing new parking meter technology, these functional areas should be considered when developing specifications and deliverables. An integral component of this foundation is to implement a decision support system that provides the City with a robust and reliable plan that provides modularity and flexible/open design solutions that can grow and expand with the City's evolving needs.

Any technical solution should always consider the end user experience and the overall accountability of the parking system, including easy to use reporting tools and system access capabilities. Most importantly, parking technology can be expensive and the solutions, while similar, have unique features that should be considered by the City. Even with the outlined solutions, it is strongly recommended that the City conduct independent testing, through pilot projects if needed, in order to ensure that the technology and service solution is a good fit for the City's needs.

For example, infrastructure for garage automation varies by vendor. A garage kiosk that has worked well in one city may not be a good fit for Riverside. Once tested and accepted, parking technology should be implemented incrementally in order to structure a proactive education and information campaign for both the internal and external users. Additionally, an incremental implementation will allow the City to establish and define operational protocols and procedures to ensure accurate reporting and a thorough preventative maintenance program developed in coordination with the City's parking operator, Central Parking.

The development of the Strategic Parking Plan included stakeholder meetings and community engagement. The following is a list of general concerns identified by stakeholders that were considered throughout the evaluation of the new parking technology that will be outlined in this section of the report:

- Security
- Improve wayfinding
- Garage automation
- Parking availability
- Time limits
- Rate structures
- Validation options
- Improve meter technology

Interactive Wayfinding Signs/Parking Guidance Systems/Vehicle Counters

Recommendations:
- *Distribute Parking Guidance System data via an application program interface while also displaying data at signs near freeway off-ramps and entrances to the downtown.*
- *Use a ground induction loop system with single lane counters for all entry and exit lanes in garages.*
- *PGA wayfinding signage should indicate parking lot status, space availability, and targeting messaging.*
- *Ensure the maintenance and upkeep of the PGS system, possibly through a subcontractor.*
- *Capitalize on the City's Raincross bell branding and ensure consistent parking signage.*
- *Brand the parking garages using consistent signage throughout each location supported by a unique name and color scheme for each facility*

Vehicle counting systems coupled with automated wayfinding systems have helped revolutionize how we park today. These systems, along with their integration to everyday phone apps, have provided drivers with the ability to plan their parking before leaving their home. This can enable people to make more informed decisions about how to get to their destination, evaluate alternative modes of transit, and, if they choose to drive, reduce traffic congestion by letting drivers know where they will park.
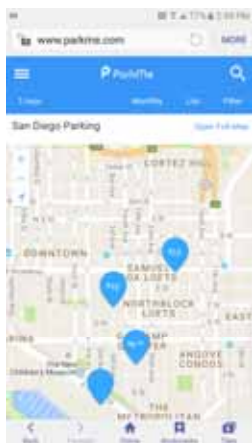

Image 10. Digital Display

Parking Guidance System (PGS) signs can promote parking availability and mitigate congestion around and within parking facilities. Although useful for many reasons, PGS for this assessment is specifically focused on a loop-based vehicle counting system. The City already has loop counters and digital display signs at the majority of the parking garages. The looped sensors are installed in the pavement to count vehicles as they enter and exit the facility. Currently, the count of available non-reserved parking spaces is shown on exterior digital displays.

The City must have an accurate tool to count vehicle entries to provide accurate parking availability that can be integrated with a PGS sign. Currently, the City has a loop counter system that ties into an external digital counter display. The current system must be assessed by the PGS vendor to determine if the infrastructure can provide the integrated outputs necessary for the suggested digital display signs to promote parking availability at the primary City arterial entrances. The PGS vendors recommend a ground induction loop system that incorporates

Image 11. Interactive Wayfinding

single lane counters for all entry and exit lanes, similar to those currently installed at the majority of the Riverside parking garage locations. The overall level of accuracy reported by the industry is 95%, however, the existing equipment was not reset daily or tested as a part of this assessment process. Similar to the existing processes managed by Central Parking, the parking operation would need to establish business rules to establish and promote capacity via the PGS signs and web applications. The benefit of the web-based applications allows for the City to redirect patrons toward alternative, underutilized parking locations. Another benefit to the wayfinding signage and the real-time parking information is that parking availability can be linked to a variety of publicly available, free parking applications.

In addition to interactive signage, information from the PGS can be posted in real-time, to web-based parking availability programs. This information can be monitored both remotely and on site by parking operations personnel in order to anticipate traffic flow impacts and capacity levels, especially for special event management. If the City adjusts pricing or implements demand-based rates, this information can be promoted using these online tools and equipment.

Image 12. Free Parking Application

DIXON recommends that this information be distributed for public access via an application program interface (API) in addition to transmitting the data to additional PGS signs placed at the primary entrances to the downtown, especially at freeway off-ramps. A typical PGS sign costs approximately $10,000 per sign to purchase and install, with

approximately $1,000 per year for software licensing. If loops need to be installed or replaced, the cost can range from $1,800 to $4,500 for each loop, depending on the surface conditions and number of lanes to be installed. A typical installation requires two loops per lane and one vendor outlined a cost of approximately $10,000 per lane installed.

The PGS/wayfinding signage should indicate parking lot status (open/closed), space availability (Full/Available), event parking details (as applicable), alternative parking areas, and targeted messaging. This methodology would allow the majority of patrons to prepare their direction of travel upon approach thereby possibly reducing the traffic flow impact, discouraging backups, and address maximum capacity concerns. If the City preferred to develop a basic integrated independent mobile application (provided by the PGS system provider), the City should estimate approximately $5,000. The overall cost of the mobile application development does vary depending on the type of information to be displayed, any specific branding / graphics requirements, and additional

Image 13. Parking Availability

features such as find my car, directions, 511 traffic information, parking reservations, or 3rd party integrations. While the City may potentially invest in an interactive City-developed website or application, for which the cost can be significant based upon your overall web design, there are a number of existing, free parking availability / guidance applications, like ParkMe and Parkopedia, that leverage available public parking information using their interactive parking application.

Image 14. Directional Monument

A critical component of any technology installation, especially a PGS solution, is maintenance and upkeep. There were concerns expressed by parking operations staff regarding the reliability of the current loop systems. If a PGS is installed, it is recommended that a responsible party (i.e., subcontractor) be designated and held accountable for the system upkeep. If this support is to be a subcontracted service, performance standards should be defined and incorporated into the vendor service agreement with performance penalties for system support failures.

Regarding City branding, the City has a recognized brand image with the Raincross bell. It is recommended that the City capitalize on this image and consider a parking moniker in conjunction with the mission bell to denote and highlight City parking facilities and locations.

Identifying the entrance points to the parking garages and surface lots was not always easy due to both the placement and variety of different directional/information signs. The City should consider consistent signage with branding or an identifying sign/marker that delineates each of the parking entrances, similar to the Directional Monument Sign in Image 14. For locations with loop detectors, the signage can include a digital availability display.

Image 15. City Brand

Wayfinding is an integral part of any parking operations. Patrons need to be informed of facility locations, space availability, time restrictions, and parking rates. Navigation from place to place within a parking facility is often overlooked and undervalued. Knowing where you are located in a facility, where there are available spaces and knowing how to navigate to those spaces is one of the most fundamental aspects of a successful parking program. The addition of wayfinding signage may significantly improve the ability of a patron to enter, leave and return to a facility. The City should also consider branding the parking garages using consistent signage throughout each location supported by a unique name and color scheme for each facility.

Digital Wayfinding - Parking Garages

Recommendation:
- *Choose one of the three provided digital wayfinding solutions to enhance wayfinding throughout the City.*

Parking should be easy. As many trips begin and end with parking, providing patrons with the direction and information on best parking options is imperative in any successful parking program. Providing accurate information on parking destination and availability can significantly impact a patron's experience when visiting an event or Downtown area. Static wayfinding offers an opportunity to lead patrons in the direction of available parking while also being aesthetically pleasing to the Downtown area. However, digital wayfinding has truly taken parking guidance to a new level with the ability to display real-time parking space occupancy data while directing patrons to available spots in the City's parking garage.

Depending on the level of detail preferred by the City, there are three primary options available to provide real-time occupancy counts.

First, from an accuracy standpoint, single space sensors provide in-depth data with the ability to show parking occupancy by level and by row within each level. This allows for a true comprehensive guidance system throughout the entire facility (See Image 16). This type of system

will not only mitigate congestion at the entrance of the garage but also throughout each level and row. A single space sensor system will cost $500-$1,000 per space installed. This price will also include some basic signage around the facility along with the software system and server. Some sensor systems may also require an ongoing data management fee. This fee will vary by the vendor but typically can run between $3 - $7 per sensor per month. Both hardwire and wireless solutions are available when installing and connecting the actual sensors. The range in pricing is attributed

Image 16. Wayfinding Signage - Single Space Counts

mainly to the amount of electrical work needed when choosing the hardwire option as the physical install and set-up is much more labor intensive than for wireless sensors. Each sensor is typically extended from the ceiling and needs to be a connected to a junction box at each space that will also need to be connected, via a conduit, to every other space in the entire garage and a main junction box at each level. In some cases, depending on the level of work needed, pricing can increase even higher than the noted range above. This is solely contingent on the actual garage that is being set up and the amount of electrical work needed.

From a wireless perspective, the initial set up requires much less work as the vendor will simply install a sensor into the ground in each space. The accuracy of a wireless solution, however, relies on the ability to provide data to the server with as little interference as possible. Parking garages are typically not conducive to the environment needed for a wireless solution. The concrete construction of garages along with, in most cases, layered floors, will interfere with the communications causing inaccurate and inconsistent counts. The wireless sensor solution typically works better in flat outdoor parking environments.

Another digital wayfinding option is to provide patrons a breakdown, by level, of parking availability (Image 17). At the ingress and egress on each level, a sensor (typically infrared or ultrasonic) or an induction loop into the ground will be installed to count vehicles that enter and exit that specific level throughout the day. An algorithm built into the software will use simple arithmetic based on the total inventory on each level to determine the amount of available spaces.

The occupancy count accuracy of this solution is typically about 95% based on the speed of vehicles entering and exiting and the space between each vehicle. This particular solution is best suited for garages that allow travel up and down on the outside of the actual parking spaces as opposed to having to drive through every spot on every level to travel up and down. In situations where the patron would drive through a particular level to get to the next one, the idea of providing a by-level occupancy count becomes

Image 17. By Level Count

inefficient. In typical cases, this solution will cost approximately $20,000 per level, which includes basic facility signage along with the software system and server. Similar to a single space count however, pricing can vary depending on the amount of wiring needed to set the system up.

Image 18. Digital Count - Wayfinding Signage

The simplest and most cost efficient method to provide real-time occupancy is to show one aggregate count for available spaces throughout the entire garage (Image 18). As described in the previous section, this is best accomplished using a ground induction loop system at the ingress and egress of the garage. A software algorithm utilizes a simple formula based on the total inventory in the garage to determine the amount of available spaces.

The occupancy accuracy provided by an induction loop system is typically 95% and relies on a few different factors. First, the speed at which the patron is going over the loop and the space in between patrons entering or exiting can have an impact on the ability of the system to provide precise counts. The barrier gate arms ($3,000-$5,000 per gate arm) at the ingress and egress of the garages will mitigate this issue and more simply, a speed bump and/or adding an additional loop (approx. $400-$500 per loop) for higher accuracy can also help. In most cases, a full system set-up (basic signage, electrical wiring and software/server set-up) will cost $40,000-$50,000 per parking garage. As always, if additional work is needed (including adding multiple ingress/egress points) the pricing will vary.

It is worth noting that there have been some vendors working with ultrasonic sensors mounted above or to each side of the ingress/egress of the garage to count vehicles entering and exiting. These sensors work similarly to the ones described in the by-level count described above and would be a direct substitute for an induction loop system. Once the count is taken by the ultrasonic sensor, the system works identically to how a loop induction system would. The vendor reports that these sensors tend to be more accurate than the induction loops. The cost, per sensor, is also very comparable to an induction loop ($400-$500 per sensor) and does not require cutting loops into the garage floor. These sensors are potentially more exposed than the ground induction loops. Further testing is needed and the City should consider piloting this type of technology to determine the effectiveness within the garage.

One other accuracy concern that should be noted for both the by-level and total facility count is the zeroing out of the system on a regular basis. As it was noted above that both of these options typically yield a 95% accuracy, over the course of the time the 5% that are not counted properly can add up and distort the overall inventory available. Also, a 0% start on each day may not really be a 0% start if a few cars were missed the day before and were left in the garage overnight. The same can occur for cars that had exited and were not counted accurately on the way out. A nightly manual count will help keep the system reading accurately. It is worth noting that parking operators

can set the count to the current inventory when 'zeroing' out which can aid in accounting for vehicles that were left from the prior day or night. A typical system can also be set to automatically reset itself on a regularly scheduled basis.

Once the real-time occupancy data is collected, transmitting it to digital wayfinding signage located throughout the garage, the surrounding City and/or a website/application is relatively simple. Most vendors that provide the counting hardware described above will be able to provide both additional digital signage and an API that will allow the data to be used in websites and applications. In addition to basic signage that comes with the pricing breakdowns above, supplementary signage can typically be purchased through the vendor for approximately $1,000-$10,000. The pricing on this signage depends on the sign and the application for it, hence the significant price range. For signage placed in areas outside the garage, there are potential costs associated with transmitting information to the digital display signs. In most cases, wireless transmissions are possible for a small monthly data fee or signs can be hardwired direct and the costs will vary significantly depending on the distance of the fiber line to the sign.

Based on stakeholder feedback and the existing loop system, the internal sensor solutions appear to be overkill for the issues in Riverside and the size of the current facilities. Using the existing loops via integrated PGS signs located at key locations throughout the City would be an ideal solution for Downtown Riverside.

Automated Garages – Pay on Exit (Attendant-Free)

Parking and revenue control systems in the downtown parking structures were purchased and installed by Federal APD in late 2011. The facilities are currently operated and managed by Central Parking. A parking attendant manages each facility during operating hours, processing parking transactions at the exit gate and vending the gates for permit holders. In the long-term, the City should consider automating the parking garages. Automating the garages would allow the city to reduce congestion at the attendant gate, improve access, and promote customer convenience. Better signage and active communication of parking policies can expedite departure issues and promote ease of use. Pay-on-foot, along with alternative payment options such as mobile payments, can minimize the gate congestion during mass exodus times, like the end of the work day or the conclusion of a special event or concert. It is important to note that the attendant labor could simply be reallocated within each facility to provide an additional security presence throughout the garage as well as a proactive customer service support role.

Each of the various rate structures described earlier in this report can be supported by an automated Pay on Exit solution. This solution would include upgraded access control equipment at the entrance plaza as well as parking kiosks located in and around the garage. The Pay on Exit solution would give the City a lot of flexibility, supporting polices such as a flat rate Pay on Entry

requirement for Special Events as well as validations and discount codes. The system also allows pre-paying for event parking as well as easy integration with other payment capabilities such as pay by phone and ticket-free payments. Permit parking would be coordinated using access control with solutions that can include a traditional access card or more advanced approaches utilizing the permit holders cell phone.

Based upon the existing infrastructure and design, it is recommended that the City proceed with an automated Pay on Exit solution with parking kiosks located in and around the garage. Kiosks and informational signage should be installed at the primary garage access points, along with elevator areas, in order to encourage payment while en route to your vehicle. The infrastructure will also allow for payment at the exit. This automated solution will allow for continuation of the monthly parkers automated gate access. Most important, this solution will provide a revenue reconciliation capability that is both efficient and auditable.

Other municipalities have experienced some personnel cost savings as a result of the lot automation, however locations like San Diego's Seaport Village have supplemented the previous booth attendants with customer service parking ambassadors to assist patrons with using the pay-on-foot technology. The Seaport Village technology conversion included the installation of four entry/exit gates with supporting infrastructure, signage, and three pay-on-foot stations for a cost of approximately $450,000.

Based upon an informal vendor solicitation, automating a Riverside garage facility would be approximately $221,000 for lane equipment for one entry/one exit, three (3) full pay-on-foot machines and a central management system. This cost estimate includes installation, freight, training and a one-year warranty on parts and labor. Utilizing the off-street occupancy data, if the City were to eliminate the free 90 minutes and install the automation equipment, based upon an occupancy rate of 50%, Garage 1 could be updated and the costs recovered within 2.22 years with a projected net cash flow of $844,000 (based upon an hourly rate of $1.50) over a five-year period. Applying similar methodology to Garage 2, the estimated cost recovery could occur within 2.37 years with a projected net cash flow of $760,000 (based upon an hourly rate of $2.00) over a five-year period.

Parking Meters and Pay Stations

Recommendations:
- *Upgrade the current DPT pay station 2G modems.*
- *Consider a pay station retrofit.*

The City currently has a combination of single and multi-space parking meters located throughout the downtown streets and surface lots. Installed in 2008, the inventory includes 79 Digital Payment Technologies (DPT) multi-space pay stations that accept dollar bills, coin, City tokens, and credit cards in addition to a mobile payment service supported by ParkMobile. In 2009, the City installed 169 IPS Group single space smart meters using both single and dual-mounted poles. The single space meters accept coin, City tokens, and credit cards. Both the single and multi-space meters allow for remote programming and real-time payment transactions. The meter equipment is supported and maintained by Central Parking.

Image 19. Riverside Parking Meters

Multi-Space Meters

In general, the equipment is in good working order, however, the DPT multi-space pay stations are installed with 2G modems. Telecommunication providers are discontinuing 2G support and the vendor has informed the City that the 2G modem will no longer be supported as of December 2016.

The modem/controller update is mandatory. Without the modem/controller upgrade, the pay stations will not be able to accept credit card payment and in order to complete a thorough solicitation for new parking hardware, the lead time for meter vendors is at least 12 to 16 weeks for delivery. This combined with the City procurement processes, does not leave enough time to effectively complete a solicitation and develop the preferred requirements to support the next phase of the City's parking operation. Additionally, the cost for a new pay station is approximately $5,000 to $12,000 (depending upon requested features) which is a significant capital cost to the City.

The City could consider an immediate alternative which includes a pay station retrofit. The infrastructure cost of a retrofit is approximately $1,900 per unit which is a substantial capital outlay without soliciting a competitive procurement or developing the City's preferred requirements. This approach is an option, however, the modem update seems to be the most practical option for the City's current parking operation.

The cost for the modem upgrade to the existing infrastructure 79 DPT meters is approximately $41,810, including labor (~$530/unit). Based upon initial observations and timing, the City must proceed with the suggested modem update. It will extend the operating life of the current pay stations and provide the City the opportunity to evaluate parking technology options and implement a pilot program to identify the features that can be incorporated into a solicitation specification.

The current equipment effectively supports the current parking operation and has the capacity to support more sophisticated hourly rate models. With the modem upgrade, pay station equipment can sustain the current operation and, with a pro-active preventative maintenance program, the pay stations should be sustainable. Most agencies estimate 7 to 10 years for the pay station life cycle. With the modem/controller upgrade and preventative maintenance, the City should estimate pay station infrastructure replacement by 2018.

Single-Space Meters

Similar to the pay station hardware, most agencies estimate a similar life cycle of the single space smart meters. The City installed the single space infrastructure in 2009 and there are no immediate hardware or modem updates required like the pay stations. The City could incorporate all parking meter technology into their consideration for future infrastructure replacement in 2018. New mechanisms with improved features including buttons, displays and integrated sensors are currently available. There is an opportunity to use the existing single space meter housing and simply replace the internal mechanisms, however, the City must evaluate their preferences for single space parking meters versus pay stations when considering future infrastructure.

Opinions vary throughout the industry on whether to choose a single space meter or a pay station. There is no standardized response and the option is dependent upon the community that the technology will serve. For example, some cities are opting to minimize street furniture and would like to promote mobile payment features, therefore, choosing to proceed with a pay station selection. However, there are other implications relating to pay station hardware that impact the management of parking enforcement and traffic support services depending upon the designation of pay-by-space, pay and display or pay-by-plate. Other municipalities have chosen to proceed with a single space only solution because of the convenience and ease of understanding on how and where to pay for a parker. The ideal solution is specific to the community for which the parking technology will support. The City should proceed with evaluating potential technology and consider piloting equipment within the next 6 months to determine the needs of Riverside and the preferences for the variety of features offered by the parking technology providers. This assessment should serve as the baseline for a citywide solicitation that should be issued and vendor selected by early Fall 2017 for a 2018 rollout and implementation.

Financial Analysis/Pro Forma

A Financial Modeling Workbook has been created to help the City estimate how changes to system metrics such as rates or occupancy would affect revenues. The basis for the model was revenue data from meters (provided by T2 Systems (Digital pay stations) and IPS Data Management Systems) and occupancy data. In addition to these, the City also provided source documentation related to off-street revenues, parking zones, and annual revenues.

Revenue Reconciliation

The Revenue Reconciliation sheet is the main worksheet of the model. By including actual revenue data along with the observed occupancy information, the worksheet provides a street level reconciliation of actual revenues and compares them to the observed occupancy. By using observed occupancy to forecast revenues the City can estimate the impact of compliance and grace periods on parking revenues.

Asset Level Calculator

The Asset Level Calculator worksheet measures the variances created when parking metrics (such as rates, hours of operation, annual parking days, and occupancy) are changed. The calculation of revenues based on the changes is compared to the baseline or actual results. By displaying this on a street level or asset level basis, various "what if" scenarios can be created and analyzed.

Zone Level Calculator

The Zone Level Calculator operates similarly to the Asset Level Calculator but it aggregates the data based on parking zones. These "what if" scenarios analyze more broad changes to the system such as adding Saturday or increasing the hours of operation to a zone.

Demand-Responsive Pricing

Demand-responsive pricing is a concept that adjusts parking rates based on usage and attempts to redistribute parking throughout the system. This worksheet analyzes the system on an asset level and estimates how changes to rates and occupancies would change revenues. The pricing scale raises or lowers the rate based on the chosen occupancy and compares the revenues to the baseline.

Pro Forma Financials

The Pro Forma Financials worksheet measures the impact of the "Summary of Annual Suggested Revenues Changes" into the parking operation. The City developed these forecasts and system changes and provided for this assessment. The forecasted revenue included both actual parking

revenue data and these changes in order to provide a forecast of future revenue streams. All future expenditures are based on an extrapolation of current spend rates based on 2015 actual financial results.

Funding Strategies

Municipal Lease

Municipal lease programs are ways for both state agencies and local municipalities to conserve cash, manage annual budgets, and avoid lengthy and costly bond issue referendums while obtaining the benefits of tax-exempt interest rates. Financing partners can customize a lease program for your specific requirements including single purchases, master lease programs, escrow funding, and buyout options.

The municipal lease program allows the City to retain control of the transaction through delivery and commissioning while maximizing the use of its cash position. Due to the tax exempt status of the program, the interest payments are not subject to Federal Income Tax. The resulting low interest rates provide a low cost and expedited alternative to bond referendums and annual budget cycles.

Riverside may consider a municipal lease program to acquire future parking infrastructure and technology as a way to expedite the process of updating parking infrastructure and technology. Municipal lease programs often do not require a down payment, and they are not subject to future balloon payments. These advantages have the ability to make leasing a more consistent and affordable option for many cities, and by the end of the lease the municipality can negotiate the option to buy the infrastructure. Alternatively, bond issue referendums can be a costly and lengthy process, and there is no guarantee that the public will support it.

By allocating a portion of the City's budget, either from existing funds or from the forecasted increased parking revenue that could be generated from an evening flat rate or a demand rate model, the City could fund the leasing program. This could be a cost efficient way of upgrading infrastructure and equipment in Riverside. Increased parking revenue could cover the cost of the lease, and it would ensure that revenue is invested into the City's parking program. Leasing equipment and infrastructure could ultimately give Riverside more flexibility and stabilize the City's budget in the long run.

Characteristics unique to a tax-exempt lease include:

- Political Subdivision: The lessee in most cases must be a political subdivision within the United States.

- Tax-Exempt Interest Rate: The cost of lease financing is minimized by a federal income tax exemption to the Lessor. The exemption is made available under the same tax code that supports the municipal bond market.

- Not Debt: Debt is not created due to an annual funding out clause typically referred to as a Non-Appropriation Clause. This is important to local governments, as they are restricted from issuing general obligation debt without voter approval. A tax-exempt lease is also known as a government lease, a municipal lease, a government tax-exempt lease, and a government lease-purchase.

The following can be leased:

- Equipment or real property essential to the services provided by lessee.

- Equipment: fire trucks, ambulances, garbage trucks, street sweepers, sewer vacuum trucks, snow plows, school and transit buses, energy related equipment – lighting and HVAC, modular buildings, police vehicles, computer hardware, software, telecommunication and radio, road equipment, copiers, healthcare, medical aircraft, 911 systems, cafeteria, library, election equipment, water projects.

- Real Property: parking facilities and garages, fire stations, police stations, jail/detention facilities, city halls, school buildings, athletic fields, water and waste treatment plants, improvements, add-ons.

Public Private Partnerships

Recommendation:
A PPP is a great opportunity for Riverside, however, in order to prepare for a PPP approach for build or replace a parking garage in Riverside, the City must implement rate adjustments, develop consistent pricing and rate increases for parking permits and standardize on- and off-street parking operation polices in order to establish consistency. Without consistent performance of the parking management plan it will be difficult to forecast projections and financial impacts and therefore it may result in an undervalued asset, which is consistent with the concerns regarding the valuation of ParkChicago.

Public-private partnerships (PPP) are contractual agreements between government agencies and private companies that partner to facilitate the development of various public infrastructure projects. These projects can include public transportation networks, parking systems, and city infrastructure such as convention centers. Developing and financing a project through a PPP

structure can expedite the process and allow a project to be completed sooner than with traditional public financing techniques. The structure of a PPP deal varies based on the project, financing requirements, and partners involved in the transaction.

Concession models, such as with ParkChicago, is a structure in which a public entity grants long-term contract to a private party in return for developing and managing a public asset as well as an up-front payment for the use of the asset. The private party agrees to build, operate, and maintain the asset in return for the proceeds it generates. The stakeholders in a concession model shift from the public entity to the private entity as the control of the asset shifts entirely to the private operator.

ParkChicago first began with the sale of the off-street parking assets including all city-owned surface lots and garage facilities. Soon after, the City also solicited the sale for the on-street parking operation for $1.15 billion. This combined with other Chicago PPP transactions generated a long-term reserve fund to replace the ongoing revenue that would have been generated by these assets. In addition, the City was able to retire substantial debt and provide immediate budget relief.[1] There has been substantial criticism of ParkChicago and many critics consider that the assets and ongoing revenue streams were undervalued.

Revenue Sharing / Shared Risk models, such as with ParkIndy, distribute the proceeds from the financed project among the project stakeholders. The stakeholders often include public entities, 3rd party financing partners, and industry experts or operators. The financing partners provide the capital, the industry experts manage and operate the project and the City contributes a portion of its public infrastructure. An example of the City's contribution could be land for use in a parking garage project or the parking revenues for use in project that modernizes a parking system. The term of a revenue sharing or shared risk contract is often shorter than a concession.

Creating a partnership between the city and the financing partner is the ultimate goal of the program. By working together, new parking infrastructure may provide the public with a modern and efficient system, eliminate the City's need to fund the capital purchase, and create added value in the parking system. This added value is shared which helps to ensure that the partnership continues throughout the project.

Characteristics unique to a revenue sharing structure include:

- Capital Costs: Upfront capital costs financed by the financing partner. In addition to the upfront capital costs, additional funding or payments could be made to the City.

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[1] *Public Private Partnerships. City of Chicago website*

- Management: The structure of the partnership varies depending upon the project. In most cases, the City and the financing partner share the roles and responsibilities for the design and processes associated with the project.

Revenue Sharing structures are best used for projects that include real tangible property and/or public infrastructure. Parking systems that include equipment and parking garages are examples of projects where this structure is beneficial.

Recently, the City of Long Beach is proceeding with a public-private partnership (P3) to replace the existing Civic Center. This is a significant development in California because this type of financing method is not typically used in California for this type of project. The City will repay the cost to design, build and operate the over $530 million project over the next 40 years at which time control of the public buildings and land will revert back to the City.[2]

The City of Long Beach is contributing approximately $11 million toward the construction costs and most of that money is derived from a lease revenue bond that will be repaid from revenues generated from a city parking garage. Additionally, the City will also add over $30 million in sales from nearby land to private developers. It is expected that the success of Long Beach will mean greater opportunity for PPP throughout California. [2]

Whether to build a new facility and determining when to begin and where to install is a challenging decision. Based upon the occupancy assessment, there is currently parking availability on-street and in Garage 7, however, the available spaces may not be considered convenient or drivers may be unfamiliar with the locations. Based upon the development plans for Riverside, and because the occupancy levels for Garages 1, 2 and 3 are consistently above industry standards and Garage 7 usage has been allocated for another project, the City should begin planning for a new facility. However, it is important to highlight that based upon the locations identified, a new facility location would likely be located at a perimeter location which will require a significant adjustment to current parking behaviors, especially those of existing permit holders. If the City opts to rebuild Garage 1 or 2, existing parkers would need to be relocated during any construction, and available alternatives are limited due to the upcoming development projects.

Alternative Solutions

Carsharing

As carsharing has grown in popularity in recent years, understanding exactly what carsharing is and how it differs from other similar services is important. The Transportation Sustainability

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[2] *Innovative Public-Private Partnership for the New Long Beach Civic Center*, February 10, 2016, Seth Merewitz, posted by BBK Law

Research Center at the University of California Berkeley[3] defines carsharing as the ability for people to rent cars on a short-term (hourly or daily) as-needed basis paying only for the time and mileage associated with their trip. The vehicle, maintenance, repair, and insurance are provided by the carsharing program's operator.

Car sharing offers people the benefits of having access to a personal vehicle without the maintenance, insurance, and upkeep costs of owning a vehicle. The common practice of shared-use vehicles allows users to make an advance reservation for a vehicle located within one's current area or region. The user gains access to the vehicle with a personal card or key and begins their trip. When the individual has completed their trip, they return the vehicle to its home parking space or same area.

Other benefits from carsharing, such as services like Uber or Lyft, include:
- Decreasing the use and ownership of vehicles.
- For other trips where the need for a vehicle is not absolute, the incentive to alternative modes such as walking, biking or transit.
- Energy savings and air quality improvement.
- A reduction in the demand for parking.

Membership in carsharing programs is continuing to increase. As recently as 2014, the U.S. had a total of 24 carsharing programs with over one million members (Carsharing 2016). These figures are likely higher in 2016. A few of the popular carsharing companies include car2go, Zipcar, Hertz on Demand, and Enterprise. It is recommended that the City contact and reference other cities of similar size and population to determine whether a similar program may benefit Riverside.

Autonomous Vehicles

Autonomous vehicles will change parking demands for cities in the future. While this is not an immediate concern, having foresight for technological developments will aid in a smoother transition for Riverside when it comes to parking. Many vehicle companies such as Volkswagen, BMW, Toyota, and Tesla are expected to release autonomous vehicles around the year 2020. Additionally, Uber is expected to be completely driverless by 2030 and early adoption by fleet programs is anticipated. It is difficult to predict how quickly the autonomous vehicle market will pick up, particularly in Riverside, but there will likely be delays due to cost and safety concerns.

Autonomous vehicles may eventually affect parking in Downtown Riverside by making convenient parking an obsolete concern. Once vehicles are able to drop off passengers at their destination and leave to find parking elsewhere, it will be less important to have parking within

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[3] *August 09, 2016, from http://tsrc.berkeley.edu/carsharing*

the downtown core. This will increase the need for safe and efficient drop-off locations, and it will make building parking on the outer-ring of downtown more appealing. This way, Riverside can maximize the space downtown for commercial development rather than for parking garages. Downtown parking garages and lots are prime real estate, and could be repurposed.

Parking garages may eventually be retrofitted for autonomous vehicles, which has the potential to maximize space. With autonomous vehicles and designed drop off areas, parking spaces can be narrower, elevators and staircases are no longer necessary because passengers will not enter the facility beyond the drop off location. Vehicles may also have the ability to park in multiple rows, one behind the other with the ability to move when needed. This is a more efficient use of space and vehicles will have a smaller footprint in cities.

A product of autonomous vehicles and the new approach to parking would likely include a reduction in the traffic congestion caused by drivers looking for parking spaces. People using autonomous vehicles will no longer need to spend time looking for a space. This would ultimately make traveling downtown quicker and more appealing as parking would no longer be a major concern for downtown businesses.

These aspects of autonomous vehicles can be kept in mind when planning for the future of Riverside, but there will likely be a long enough timeframe to make the adjustments and retrofits to land use and parking as they become necessary. While it is never too early to begin planning for future transportation technology, in the case of autonomous vehicles there are many factors that must first be addressed by the transportation industry that include, but are not limited to, legislative requirements, safety standards, testing, cyber security, and enforcement before autonomous vehicle adoption will begin in the United States. The current California legislation and Department of Motor Vehicle (DMV) requirements govern the testing of autonomous vehicles on public roads. While 15 companies retain permits to test, the CA DMV regulations are considered prohibitive and the regulations clearly indicate that a driver must be ready to take control of the steering wheel at all times.[4] While the restrictions are limiting, it is anticipated that rideshare programs, like Uber and Lyft, will likely be the early adopters of autonomous vehicles.

Future Parking Developments

Two of the most popular parking locations in Downtown are Garage 1 and Garage 2. Both of these facilities are aging and the City needs to consider whether to replace or relocate/rebuild these locations. There are opportunities to maximize current parking assets throughout Downtown, however, the City needs to address the options associated with these two primary parking

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[4] *Los Angeles Times, California's proposed DMV rules for driverless cars could change in the wake of federal guidelines, Samantha Masunnaga, September 20, 2016*

locations. This was one of the most significant debates throughout the development of the Strategic Parking Plan. Those two locations are the most consistently occupied due to their smaller size and convenient location. Stakeholder feedback on these locations was somewhat negative, viewing the facilities as rundown and too small.

Garage	Total Spaces
Garage 1	170
Garage 2	155
Garage 3	292
Garage 7	398

Table 13. Garage Inventory

During the September 19th stakeholder meeting, we discussed the potential of building a large garage facility at the Convention Center Lot 33 and the importance of establishing a parking alternative before eliminating an existing facility. Alternate locations for future parking garage developments must be identified and defined as part of any action or plan to rebuild or relocate garages. While the data collected demonstrates that the on- and off-street occupancy ratios can support the current parking inventory that would be displaced by Garages 1 and 2, the displacement would not be in one centralized location and it would be very difficult to manage this approach. It is recommended that the City develop an alternative centralized facility, similar to Garage 7, to support these facilities. The remainder of this section outlines possible locations and considerations for these options. Regardless of the location, an alternate parking location must be plotted and logistics coordinated before any closure or action with either Garage 1 or 2. The City should also consider approaching these locations incrementally. Otherwise, the impacts on the downtown community will likely be significant.

A proactive campaign will be required to review this approach. An interim option would be to utilize Garage 7 for displaced parking, however, the general feedback was that the location is inconvenient and too far from the downtown destination locations. However, the capacity of Garage 7 will be affected by upcoming development in the next few years.

During stakeholder meeting #2, participants were asked to identify locations on a map where they would consider a potential location for additional or shared parking in downtown. The purpose of this exercise was to gain a greater understanding about parking expectations and feedback from the public. The majority of the locations identified were located at the Sixth Street and Mission Inn Avenue intersections, near Lemon Street. This location is nearby the Riverside Municipal Auditorium and Library. Some were clustered around Lot 27, however this site is currently being planned for a future boutique hotel and may not be available for a parking garage. If this development does not proceed, the City should consider a parking facility for this location. The

locations identified were likely popular due to their proximity to the downtown core and the lack of large parking facilities to support downtown events.

Another cluster of locations identified were located near the Convention Center (Lot 33). This location has also been identified in this report to be a possible location for the future development of a sizable parking garage. This location would serve the Convention Center, nearby museums, and nearby hotels. Furthermore, this location is not too far from the center of downtown, and it could be used during special events when necessary.

Finally, Garage 6 was also a targeted location. This is likely because of the significant underutilization of Garage 6, particularly at night. Garage 6 is not well known to the majority of the public that there is public parking available in that garage after 6:00pm. Therefore, some stakeholders have identified Garage 6 as a resource that should be better utilized through the use of better signage and wayfinding for public parking in the evening and on weekends.

Convention Center Lot 33

While there are no definite plans at this stage for the convention center parking lot, this site could be considered for the development of a new parking structure. The convention center location would be convenient for museum visitors and the Marriott and Hyatt hotel employees. Additionally, it is important to have foresight for the future growth and densification of Downtown Riverside. The convention center is just a few blocks away from the core of downtown, making it a desirable location for additional parking as it becomes necessary. Provided Lot 33 is approximately a half-mile away from the museums and downtown core, it may be beneficial to consider adding a shuttle service from the lot. A shuttle service would be especially helpful during special events to help keep the flow of traffic on the edge of downtown, and ensure sufficient parking supply. A parking garage here could help safeguard that as downtown grows drivers will not overflow significantly into the surrounding residential areas. Building parking on the edge of downtown will also help preserve the pedestrian-friendly atmosphere around Main Street of Downtown Riverside.

Lot 38

Surface Lot 38 has been identified as a location near the Justice Center for development consideration. This location (or another nearby City property) could replace the parking that is estimated to be lost as a result of Chow Alley and the space closures along Main Street.

Recommendations Summary

The following is a brief summary of the recommendations outlined throughout this report. Any change in policy, facility, or technology should incorporate a proactive education and information community campaign.

On-Street Hardware
- Upgrade the current DPT pay station 2G modems immediately
- The City should evaluate potential technology and consider piloting equipment within the next 6 months to determine the needs and preferred technology features available.
  - o This assessment should serve as the baseline for a citywide solicitation that should be issued and vendor selected by early Fall 2017 for a 2018 rollout and implementation.
- The City should consider expanding on-street paid parking near/around the Convention Center and hotels.

On-Street Rates
- Continue to use a no time-limit model, supported by a tiered parking rate structure for on-street parking and surface lots.
- The initial on-street rate increase should focus on the Justice Center parking, recognizing that this area is a premium-parking zone.
- Launch a proactive education campaign to educate the public while raising rates incrementally.
- Use the meters to display the tiered rates.
- After implementing the off-street evening rate first, consider implementing an on-street evening rate later based on future evaluation.
- Assess the level of participation in the token program in the future to determine whether to limit token purchases.
- Surface lot monthly permit rates should vary based on demand and location.
- The surface lot monthly permit rate should increase by at least the same percentage as the monthly garage permit.
- The City should consider a slight increase in the parking penalty rate schedule.

Garage Automation
- Manage garage access 24/7 utilizing Pay-on-Exit technology that provides monthly parkers automated gate access
- Transition booth attendant to a customer service, security presence throughout facility
- Require selected technology vendor(s) to provide an application program interface (API) for transmission of parking occupancy by facility

Wayfinding
- Capitalize on the City's Raincross bell branding and ensure consistent parking signage.
- Direct drivers from the primary arteries to the entrances of parking garages, especially for Garage 7 where the entrance is difficult to locate.
- Make sure signage for Garage 6 clearly communicates public parking after 6:00pm.
- Distribute Parking Guidance System data via an application program interface while also displaying data at signs near freeway off-ramps and entrances to the downtown.
- Use a ground induction loop system with single lane counters for all entry and exit lanes in garages.
- PGA wayfinding signage should indicate parking lot status, space availability, and targeting messaging.
- Ensure the maintenance and upkeep of the PGS system, possibly through a subcontractor.
- Choose one of the three provided digital wayfinding solutions to enhance wayfinding throughout the City.
- Brand the parking garages using consistent signage throughout each location supported by a unique name and color scheme for each facility.

Monthly Permits
- Develop a long-term permit rate plan to incrementally increase permit rates annually that incorporates reduced fee options for rideshare, carpool, and public transit use.
- Eliminate reserved permit parking spaces and create a standard permit parking program with designated permit parking zones.
- Permit zones in garages should be on the upper floors.
- Permit pricing should vary by location based on demand and utilization.
- The initial permit rate for Garage 3 should not be less than $90.00 per month.

Off-Street Rates
- Gradually eliminate the 90-minutes of free parking offered in the garages and promote the current merchant validation program.
    o The City could consider cutting the allotted free time in half to 45-minutes prior to completely eliminating the free parking.
    o If the City wishes to continue to provide free parking, the free parking should apply to only the third or fourth hour.
    o Implement a low rate for the first three hours of parking and escalate for the remaining time.
- Implement an escalated rate model for off-street parking based on location and demand.
- Increase daily maximum rate to be consistent with other Southern California cities.
- Implement a flat $3.00 evening rate on Thursday, Friday, and Saturday nights after 5:00pm at off-street locations supported by automated entry and exit system.
- In the future, the City should consider limiting the amount of discounted parking that can be purchased by a business.

- Eliminate the 2-hour parking limit restriction signage in the garages.
- Consider prohibiting parking on the lower floors of garages before the start of business hours.
- Consider implementing an Evening Employee Permit Program.
- As on-street rates are increased, the off-street daily maximum should be increased as well. However, the off-street daily max should always be less than the on-street maximums.

Parking Management
- Ongoing PCR training to manage parking regulations equitably and consistently with a pro-active parking enforcement approach.
- Identify a designated location for drop-off/pick up and bus parking for special events.
- Establish a distribution model for the anticipated revenue increase. Allocate 50% to fund future parking developments, 25% for current enhancements, and 25% to support the existing operation.
- Develop city policy for regulating valet operations.
    o Consider utilizing valet service for special events and to support the potential development growth of the City.

Zoning
- The City should not lower parking ratios requirements at this time.

Funding Strategies
- In order to prepare for a parking facility PPP, the City must first implement rate adjustments, develop consistent pricing and rate increases for parking permits and standardize on- and off-street parking operation polices in order to establish consistency.
- Begin planning for a new facility or a rebuild of Garage 1 or 2.

Stakeholder Feedback / Rankings – Recommendations

During the third stakeholder meeting on September 19th, participants were provided a survey and were asked to rank their parking program improvement priorities from 1 (highest) to 5 (lowest).

Out of the 13 respondents, the top priority on average was new garages and the average lowest priority was meter upgrades. The average ranking was:

1. New garages
2. Security
3. Wayfinding
4. Automation
5. Meter Upgrades

Prioritize improvement priorities ranking from 1 (highest) to 5 (lowest):					
Respondent	New Garages	Security	Wayfinding	Automation	Meter Upgrades
1	1	2	3	5	4
2	1	3	2	4	5
3	1	5	2	3	4
4	1	2	3	4	4
5	5	3	1	2	4
6	3	1	2	3	3
7	5	1	2	3	4
8	5	5	5	5	5
9	1	4	2	3	5
10	1	3	2	4	5
11	1	2	5	3	4
12	2	1	3	5	4
13	3	1	4		
Averages:	2.31	2.54	2.77	3.67	4.25

Stakeholders were also asked to rank recommended methods of accessing increased funding for priorities from 1 (highest) to 6 (lowest). Respondents on average had a top priority of eliminating/reducing free parking in the garages. The average lowest priority was increasing citation fines. The overall average rankers were:

1. Eliminate/reduce free parking in garages
2. Special event rates at all garages
3. Increased parking meter rates
4. Charge on weekends and evenings

5. Increased monthly permit rates
6. Increased citation fines

Respondent	Eliminate/ reduce free parking in garages	Special event rates at all garages	Increased parking meter rates	Charge on weekends and evenings	Increased monthly permit rates	Increased citation fines
Prioritize your recommended method of accessing increased funding for priorities. Rank from 1 (highest) to 6 (lowest):						
1	4	1	2	3	5	6
2	3	1	2	4	5	6
3	2	6	5	3	4	6
4	3	1	4	6	2	4
5	1	2	4	3	5	6
6	1	3	2	3	2	6
7	1	2	5	4	6	3
8	4	4	4	4	4	4
9	1	3	5	2	4	6
10	2	5	1	3	4	6
11						
12	4	1	3	5	6	2
13						
Averages:	2.36	2.64	3.36	3.64	4.27	5.00

The survey also provided an opportunity for general comments and feedback. The following are a summary of the stakeholder responses:

- A 1% sales tax increase could fund the construction of a new parking garage.
- It should be required to pay a minor rate ($1.00-$2.00) for parking downtown 24 hours per day.
- The number of disabled person parking spaces should be increased.
- A new parking garage should be located near the RMA, Heroes', and Encore on the East part of Mission Inn Avenue.
- Discounted employee parking should be a priority.
- A County-owned parking lot could be a shared parking opportunity.
- Security should be improved with video cameras and lighting.
- New projects and developments should be required to provide more onsite parking.
- Downtown employees should park on the outer rim of downtown and be provided with a transportation service to bring them to work.

Appendix A – Stakeholder Meeting Minutes

June 20, 2016

- Introductions
    - DIXON
    - City staff
    - Councilman Gardner
- Stakeholder Introductions (approximately 70 attendees)
    - Name & Affiliation
    - In a short sentence, your biggest concern with parking in Downtown Riverside & if you had a magic wand, how would you fix it.

The following are an approximate summary of attendee comments:

1. Scott (General Manager Convention Center) – need more capacity & more parking; concerned about conditions of Lot 33 and as people come down main street, accidents, driving into the grass.

2. Dave (City Planning Division) - have adequate parking most of the time, but is it where it needs to be? Need better wayfinding throughout downtown, people don't know where to find the parking.

3. Carey (Store Owner) – safety is the biggest concern; transients at night; need better monitoring; there is limited on street parking, should have 90 – 120 minutes free parking near the businesses.

4. Tim (President Riverside Art Museum) - there is no disabled parking on Lime & Mission or near the Municipal Auditorium, new fire station took all available parking spaces. We support that the City wants to bring in Children's Museum, but this will require parking, needs to be addressed. Need more parking overall.

5. Mark (County of Riverside) - traffic issues during large holiday events; need more directional signs.

6. Lauren & Megan (Senior Center) - not enough parking and with the new CC opening, students think they will have free parking downtown; parking spaces taken by residents; would like the City to covert the field across the street into a parking lot or a possible

parking structure. Would like 2hr curb parking near the facility available to the seniors.

7. Pam (Director Riverside Museum) – doesn't have designated parking; everyone expects to be able to park in front of the facility where they are visiting. Would like to see a multi-tiered parking option with admission; there is literally no parking during certain times. Museum located at Orange and University. Need better wayfinding, Garage #7 is within 2 blocks, but people expect to park adjacent to facility. We need a garage on the eastern end of the Mission Inn.

8. Emily (UC Riverside/Arts Block) – the current 8 parking spaces next to building (Lot 46) are being eliminated. Students that work for us have limited incomes and paying for parking is sometimes more than what they get paid for the day (need affordable parking options). We also have no parking available for donors or spaces close enough for seniors. Would like to see Mission Square always provide free parking after 5pm. Need more help with events.

9. Bill (Resident) - parking is getting nibbled away with hotel, new buildings; immediate problem. Build a parking garage at Lot 27 (Lemon & Mission); this area is surrounded by people who need parking; library, churches, museums, senior center – this garage should be about same size at Garage #7.

10. Stan (Mission Inn) - need parking for Festival of Lights.

11. Stan (Sr. VP Premiere Bank) – we need a mega parking structure, 700+ parking spaces, 2/3 below ground with major access points to eliminate gridlock with major events.

12. Cindy (President Riverside Commerce) – there is so much happening in Riverside, we need a comprehensive plan identifying what is planned to be built, this pipeline will help to locate the appropriate site for a parking structure; Need better and more wayfinding; Security in parking structures is a concern.

13. Benjamin (Downtown Employee) - has trouble parking during Festival of Lights; need alternate parking locations and shuttle options to event. He is a parking permit holder and parks in Garage #7. Safety is an issue.

14. Chris (LAZ Parking) - lack of parking; knowing where parking is. City should consider an online reservation system and drivers can be notified where parking is available.

15. Paul (Resident) - lack of parking; should consider if vertical or horizontal is better. Need to look beyond parking as the City is expanding and growing; need more visible parking;

need parking that accommodates electric cars.

16. Sky (Resident) - the small Downtown parking lots are disappearing; travels Downtown for meetings and calls to determine if free parking is available; there is not enough 1-hour parking; wants 1 to 2-hour free parking for meetings; consider parking validation; City should take back the garages that were sold. Need to build 2 garages.

17. Sharon (Resident) - would like to see free parking; better access to parking; wayfinding; transportation to and from structures during special events; special event road closures make it difficult to access parking.

18. Paul (Resident) - City closes streets (Main St) for Farmer's Market, this eliminates a lot of parking for older people who come to shop, or festival of lights; residents don't have someplace close to park. Would like to see more available senior citizen parking. Move the Saturday Farmer's Market – consider in front of court house.

19. Wendy (Store Owner) - Farmer's Market takes away parking in front of her store. Been a business owner for 17 years; Farmer's Market has been there for 7-8 years, takes away her business, pedestrian traffic is directed away from store fronts; Farmer's Market hours also extend beyond the scheduled 2pm closing time; Vendor signs block our stores; Would like to move Farmer's Market to University and 9th by the Mall; allow regular customers to park in front of her store.

20. Terry (Store Owner) – located between 6th and Main.

21. Jason (Resident) - need better security at night; would like to see HD cameras inside parking structures and physical security presence on weekends.

22. Mack (Life Arts Building) - closing of parking street on weekends and when there are events on street, need better parking structure access during events.

23. Bent (Life Arts Building) - there is a problem when they close the parking structures during special events; everyone needs to communicate with each other; would like to build a structure that allows everyone parking.

24. Dawn (Business Owner) - parking all together is a problem; has customers circling who can't find a spot; now cut off from law library parking (recently sold); FIX: validation both on street and off street. 2 hours would be sufficient. How far to walk to facility – concern for community at large; seeing an influx of customers by post office.

25. Linda (Salon Owner) - lot of elderly clients; lost parking behind Lot 49; paying for monthly parking but won't allow buying extra parking spots for her clients; now going to have a tow truck instead of ticketing; tokens doesn't work because clients can't be interrupted while getting their hair done; online validation might be too difficult for the elderly; would like to be able to purchase permits to park at the law library parking. There is a restaurant, beauty salon; and flower shop next to each other; would like to see 2-hour free parking on the street

26. Cathy (Resident) - agree with above. Amazing how downtown has grown, but the amount of parking needed has been considered. Would like to see 2-hour free parking for those who want to stop into a store or restaurant.

27. Sherry (Resident) - here for general info; agree with above. Likes to park in the parking structure, likes that it tells you how many spaces are left. Security is an issue.

28. Andy (University Multi-Tenant) - would like to see some loading/unloading spaces near/close to the entrance; clients/tenants have to take multiple trips with product; during construction they need sufficient reserved parking in the structure during the day. Would like to see stronger relationship with existing parking structures; some are owned by county, some by city, some privately owned. Post a sign in front of public parking structures that encourages people to utilize.

29. Rohan (Riverside Transit Agency) - would like to see transit and parking co-existing Downtown; need to look at new bus stops and parking spaces; wants to see transit utilized as part of the solution. Rapid service every 7 minutes along University and Magnolia. All students can use transit services. 20-25% using transit (one of the highest in the country). $1.50/fare. Monthly passes can be utilized. Consider auxiliary parking areas and transit to business. Corporate transit pass. Relieve some congestion, consider the 'last mile'.

30. William (Fox Theatre/Riverside Municipal Theatre) - East Side with museums same problems 2,000 guests, not enough spaces. Would like to see Lot 27 expansion at the bare minimum; fund construction by increasing parking rate when there are special events; wants a bigger facility that wraps library U-shape multi-level; Garage #7 has no issues except for safety. Leverage costs to expand.

31. Amit (Fox Theatre) - would like to see discounted parking for students; shows in the fall are geared towards younger audience; Show count 1500 people at Fox, 2000 at RMA, could have 4000 people at night. Need valet parking option.

32. Terry (Business Owner) - a lot of senior clients, concerned that they won't be able to access space. Parks in Garage #7, wants an attendant later than 7pm. Security is a big issue. Parking meters are slow, frustrating, need to be more efficient. Increase free parking (consider 90 minutes on street); increase rates to $2/hour for longer parking.
33. Nancy (Downtown Resident/Employee) - Festival of Lights buses park in front of businesses, use parking lots. Would like to take older and newer parking structures and incorporate greenery, water wise plants, less concrete. Garage makeovers needed.

34. Judy (CFO Farmer Boy) - parking lot behind restaurant is being used by everyone. The parking lot will be full but her restaurant is not. Need another structure on this end of the city (southeast). Parking meters – everyone gathers around one meter, not knowing you can use another meter. Need more signage.

35. Eric (Resident/Business Owner) - multi-fold problem; the City gave away the parking we had (stupid). Parking lot behind City Hall was sold it to DA's office. Didn't build parking spaces underneath. IMPERIAL PROJECT: Less than 1 parking space per apt that they plan on selling, not including businesses (needs to include parking). Expect overflow to use Garage #1. Don't know where clients are expected to park. Misuse of handicap placards. Would like to see the Library move or Imperial Project to move; also wants 450 parking structure with businesses at bottom and a park on top.

36. Mike Gardner (Council Member) – Need actual facts and numbers; Where do we need more parking? Where is parking going in the future? Our world is changing. Ideally would like two new structures downtown - one near the library/museums/churches & another at the end by the courthouse and City Hall.

37. Janice (Riverside Downtown Partnership) - a lot of positive coming down the pipeline; these are long term; in the short term we are losing parking with an immediate impact on retail businesses. Parking places that they had previously will be gone. Not all retail managers can stand for the long term gain. Maintain the integrity of the downtown retail. Would like to go back in time and built 2-3 more parking structures in anticipation of growth. Garage #1 and #2 was good. Garage #3 to State employees during the day. Garage #4 was sold; Garage #9 went to the DA office. Need to find parking in the short term so we don't lose our retail core.

38. Unknown (Business Owner) - being penalized for the sake of other businesses, we cannot afford to lose parking. Need something done to Garage #3. Consider bottom half of Garage #3 for customer use; There is a City program to purchase validation and tokens, but there is no place to park, so why validate; change the flavor of the mall.

39. Miguel (Business Owner) - hard to find parking on 9th street, no parking now; Customers call to ask if there is a parking space. Clients are in for 30-40 minutes, maximum is 1 hour; need short term parking options.

40. Other Feedback:
    i. Parking garage next to Fox Theatre - Mystery building, gated and closed, is this a possible parking option that should be considered.
    ii. Need an inventory of private lots that do offer parking - available spaces, short term solution.

- Next Steps:
  - Stakeholders were advised that during the next meeting, they would be presented with the data collection results and some of the initial findings.
  - In preparation for the next meeting, they were asked to consider the following:
    1. What is a reasonable distance for people to walk and park?
    2. Where to put the parking?
    3. Consider the impacts on the aesthetics of Downtown.
    4. Free parking vs. Paid parking
    5. Look at other cities and consider how they manage their parking.
       a. Bring back ideas/options

- Introductions
- During meeting we will;
  - Ask attendees feedback on parking concerns
  - We will be taking feedback and incorporating into messaging and feedback
  - Look at numbers and share them with you
- Going to city council end to mid of September
- End of summer take recommendations and move forward

- Question – will we get into money aspect?
  - Yes, it will be addressed, but not in today's meeting
  - Tie in financial recommendations into final report
  - Parking fund currently runs at deficient, so looking into ways to finance

- Detail of study area boundaries
- On-Street data collection was conducted on Thursday June 16th and Saturday June 18th
- For off-street we utilized RDP Ambassadors and Central Parking assisted
- Initial observations
  - Truly ample parking within overall downtown corridor
  - Park directly outside no, within 1-2 blocks yes
  - Thurs and sat nights busiest on-street
  - Garages 1 and 2 high occupancies, 3, 6 and 7 low
  - Need better signage
  - Wayfinding can be better utilized
- On-street availability
  - Last meeting talked about parking theory and desired occupancy levels of 85% of less (1-2 spaces per street)
  - DIXON recorded around 40% for each time surveyed
  - Plenty of occupancy for downtown parkers daytime (within 1-2 blocks)
  - Evening occupancy shifts from courthouse area to areas with restaurants and bars
- Parking garages
  - Significant utilization in garage 1 and 2 on weekends
  - Midnight – occupancy evening on Thursday, Friday and Saturday highest – still considerably under occupancy rules overall
- Considerations
  - Last meeting talked considerably about developments
  - Losing 202 parking spaces and 103 on-street due to developments
- Even with removal of 202 surface space lots, occupancy goes from 42% to 49% - sub less than 85% threshold
- Initial results from the online survey
  - 75% of respondents thought great idea to limit garage to 2 hours

- o 76% highlighted 1-5 mins to find space
- o >10 mins 9.5% - consistency group drive around until find exact space becomes available
- Items for consideration
  - o Perception vs. reality
  - o Parking is available, but may not be in exact location you would like
  - o Looking for locations for shared parking resources
  - o Maps are at back at room, attendees to make note of desired new parking locations on maps
  - o Security – lack of security noted and will be incorporated into recommendations
  - o Time limits – consider adjusting $16.50 all day parking by courthouse
  - o Improve signage in downtown area
- Next steps
  - o Not only here to talk about data but open up to questions
  - o Questions based upon data?

Questions from Attendees:

1. Question about data. When creating data for the parking structures did DIXON take into account reserved parking?
   Spaces are allocated – only considered available unreserved spaces during operating hours.

2. Are permitted reserved parking spaces included in inventory in output signs?
   Only shows available spaces which are not reserved.

3. Numbers taken when RCC and UCR are out of school. Take another reading when they are back – sold garage 7 to RCC complex?
   No, DIXON conducted counts during typical days. 100 spaces in Garage 7 were sold to RCC for daytime use and are available to the public in the evening.

4. Garages give 90 free mins so that is why more full than street?
   Has to be taken into consideration – will be taken into account in final recommendations

5. Reserved parking spaces are not available in evenings for events, change to free parking after 5pm?
   Will be taken into consideration.

6. Parking garages full due to 90 min free parking
   Comment taken.

7. Will presentation be made available?
   Yes, Julie Dixon email address on screen.

8. How is the City going to deal with disability parking? Downtown has blue spaces, ensure markings are up to ADA rules.
   City has rules for ratios for off-street locations.

9. How were space counts conducted?
   On-street counted by hand at schedule. Off-street used digital counter.

10. How garages counted – hockey pucks? Signs said full, however about 20% of spaces were available?
    Loops – availability could be due to reserved spaces? Will look at.

11. Have we brought findings to disabilities commission?
    No, this is just second stakeholder meeting.

12. Zero on-street parking for people with disabilities. Not one space which is complaint – less than 2% slope and cross-slope – building standard. May be blue but can be used as it is dangerous. Title 2 ADA requires wayfinding for disabled spaces. No accessibility to feed meters. People with disabilities require full and equal access to commerce. Need store owners to help.
    No change to CA statute – ASA rules require you not pay at meter. City of Riverside not looking to change that.

13. Does survey look at impact to parking on neighborhoods downtown? I volunteer in downtown, no place for volunteers to park downtown. Forced to park outside in neighborhoods. Not only person who does this. Anything in plan to address issues?
    We do take residential areas into consideration. Anytime change rule in parking have to anticipate what it does to surrounding areas. Have to make changes incrementally and give people a chance to adapt.

14. Any consideration to companies who pay a lot of money for private parking lots and consideration for people willingness who want to walk blocks, but elderly and health issues cannot walk that far?
    Stakeholder engagement to provide feedback so if parking rule changes, can mitigate impacts. Issue that people park there for court. Will tie into recommendations. City in Central CA – agreement where city writes citations in parking lots. Could be potentials for that. City keeps revenue, but company gets parking lot back. Need to check city statutes and ordinances.

15. All data leads to parking garage to replace lot 27 (mission/ lemon)? What steps next?
    Assignment in parking management plan is to find potential locations and financing strategies to fund potential development.
    Need – independent of cost – developments coming out. Need to look at pipeline and define need. Ample parking today – if develop then forecasting will help define need. What development projected for city. No parking needed for today, but for future need to do analytics.

16. Plenty of parking – but not where needed. Lot 27 is perfect location!
Comment taken.

17. Other than lot 33, what does the City have for bus parking?
Identified at last meeting will put into final report – on list of things from final meeting.

18. Concerns of all new apartments being built with contractors taking spaces, lot of people – take resident spaces??
Dixon will clarify with city. City will have to address

19. Lot 42, will go in 2017. Greatly impact local businesses
Comment taken.

20. Ratio for parking lot with handicap?
No numbers available right now. Please email Julie Dixon to follow up if numbers are required.

21. Did we take into account temperature of days? Downtown not busy in summer months.
Reason why dates were picked was that there were no special events. Picked average week. Non-peak period.

- Questions for group
    o Free parking v paid? Evenings and weekends
        ▪ Charge for evenings – 1 person yes, everyone else no
        ▪ Charge for weekends – yes none, no everyone

    o If want to increase of presence of security, signage, wayfinding, have to figure out way to pay for it. If it would pay for sustained program such as security enhancements, would people pay for evenings and weekends?
        ▪ Yes – about half, no about half.
    o How suggest fund wayfinding and additional security?
        ▪ See numbers first. Weekends and evenings too much of impact. Downtown Partnership looking at ways for funding

22. Checks and balances for audit controls?
Yes, SP+ operation has them in place

23. Opportunities to charge on weekends for special events – i.e. festival of lights?
Show of hands charge for special events in surrounding locations
Agreed almost everyone
    ▪ What do waiters do? Pay for that night?
        ▪ Employer help fund employees as raise more money
        ▪ Employee parking permit?

24. Park and ride and shuttles?
   Talked about at last meeting. County transit were at last meeting, encourage bus and car sharing

- Any other cities should consider parking program like?
    o Pasadena – parking structures much bigger than riverside
    o Parking on perimeter
    o Agree, Pasadena is good. Built parking then stores around it. Need to find happy medium for city your size

- Reasonable distance for people to park and walk?
    o 4 blocks too far
    o 2 blocks reasonable about 60%
    o No, right in front of place, within block – only lot 27
    o If retail business most customers demand block
    o If just downtown for one store block half, 2 max. if event 3.5 as far without shuttle transport

- General comments;
    o Maps of times, highlight open parking not leave white – hard to tell.
    o Signage in garage – doesn't state times of permits
    o Going to add color before send out presentation – not tampering
    o County jury system provides remote parking with shuttles – FYI
    o Load presentation onto city website and put link onto newsletter
    o Parking fines – all does not go to City of Riverside. How much goes back to city?
        ▪ Very little, portions go to city and state.
    o Recommendations will go onto report, get breakdown from county.
    o This is the last stakeholder meeting. Will share when go to council with recommendations. Will distribute to everyone on sign-in sheets.
    o Validation system for meter parking? Have it for garages. Will look into it.
- Dulce Gomez is city contact
- There is a token program where local businesses can purchase 100 tokens for $25, good for 1 hour. Purchase at central parking, 3750 market street purchase them.
- Schedule for city council meeting and presentations added to last slide of power point.

Presentation Outline:

- Introductions
- Data Collection
    - June on-street occupancy levels
    - Data provided by the City and Central Parking
- Key Findings
- Four Project Objectives
- Key Stakeholder Desires
- Suggestions for Consideration
    - Wayfinding and Guidance
    - Parking Garages
        - Issues and Strategies
        - Suggestions
    - On-Street Rates and Time Limits
        - Issues and Strategies
        - Suggestions
- Long Term Needs and Planning
- Potential Parking Developments
- Funding Strategies
    - Municipal lease
    - Public private partnerships
- Rates to Support Needs
- Improvement Priorities: Ranking
- Funding through Rates: Ranking

Questions/Comments from Stakeholders:

1. RDP member: One of the issues Riverside is facing is the loss of parking, so they'd be opposed to charging for parking during the day in addition to taking away parking. However, they'd support charging at night to support security improvements.
   - Suggests 6:00 for starting to charge
   -Wants to discourage the after-hours problem and not discourage the restaurant charge
   -$3 at 6:00 and $5 after 8:00

2. What does the lack of accessible parking near the museums mean?
   -This is referring to the lack of ADA and available parking

3. We should be charging for parking 24 hours per day. It doesn't need to be a lot ($1-$2).

4. How much permit parking is there?
   -Around 50% (permit parking)
   -We should make it clear that people can park afterhours

5. People don't know that you can park in the Mission Square Garage. Garages should each be named and identified down the street.

6. The County Garages seem to be an asset to consider, especially during the Festival of Lights

7. The Metro Center building has no signage – this could be a good location for shared parking/valet parking

8. The token program is a good program

9. Will there be parking once the hotel is built on Lot 27? He thinks that they should be making up for the parking that they're taking away.
   -No
   -The consideration of shared parking resources

10. There was a wayfinding study done in the mid-2000s. There was never an agreement on the look/style of the signage, but they did determine on where the locations should be
    -We will try to find this study and take it into consideration

11. When a garage is blocked off, the wayfinding signs needs to address this so people aren't incorrectly directed to closed garages with open spaces

12. How do you enforce on-street tiered rates?
    -Parking sensors can help prevent people from feeding the meters throughout the day

13. Where would you relocate Garage 1 or 2? He would rather see a complete teardown and to replace with a larger garage with more floors, solar, etc. If those structures were taken out, what would they be replaced with?
    -This is the challenge

14. One of the most optimal locations for a new parking structure that would be accessible and centralized would be the current city library site. People would pay to be that close.

15. Concerned that we will be losing parking to the hotel at Lot 27

16. The acquisition of property near the RMA should be done before we lose lot 27

17. The garages aren't welcoming, and security is an issue. Something that came up a few years ago to make them more welcoming is to name each one, more lighting, more security, and paintings on the lower floors.

18. If we charge too much for parking, it could discourage people from going downtown. It also might motivate people to park wherever they can for free. There needs to be a balance for how much to charge.

19. One stakeholder owns an apartment complex downtown that doesn't have enough parking. He thinks that new developments should be required to have enough parking/guest parking. We can't assume that families will only have 1 car.

20. The Hyatt lot should've been a shared parking location instead of just having it for the hotel. Parking near the RMA is an issue. That building needs more parking.

21. Low parking ratios puts the burden on the residential areas where people try and park for free

22. Lot 27 RFP has not been completely approved

23. Where do we park the employees of the downtown businesses?
-Employee parking permit program for underrepresented workers (have to show proof of ownership or employment to get a discounted pass)

24. The employee permit parking should be available for the whole day, not just the evening

25. Restricted parking on the lower levels of the garages would make coffee shops/quick stop shops lose their customers

26. There needs to be a time limits for EV charging stations
-EV policies in the City should be updated

27. We should be careful with respect to raising parking fees

28. The impact with the RMA, art museum, restaurants, etc. of parking has been significant. If we are going to build more parking, this site needs to be served for sure. This is a vibrant area of the city.

29. With the wayfinding, we have an opportunity to have great transparency with how they're going to be paid for—the community can see how the total comes down by the parking rates. Subsequently, the parking rates could go down once it is paid for. This is an opportunity for residents to get involved.

-In Los Angeles, each council member gets to pick what the revenue is invested in

30. How much are taxpayers paying for this study? He is skeptical that nothing will actually get done. There is no guarantee that any of this will be taken into effect.
-Under $50,000.00
-Part of our key objectives is to create strategies/solutions that can actually be implemented

31. Multiple new businesses going in could possibly create more tax revenue to invest in parking needs

32. Employees can't afford to pay off their parking tickets
-This is why the employee parking permit would be a very viable solution
-Low initial rates could also help address this issue

33. We should take care of the employee permit parking first before raising the rates so the burden isn't passed onto the business owners

34. Is it financially viable to have the City operate the parking instead of Central
-Central Parking does not receive compensation from parking violations

35. Why does the revenue from parking tickets go to Orange County?
-It is collected from a program located in Orange County (this is the less expensive location and the only other location that can process tickets is in Nevada). Additionally, the California Judicial Council allocates funding.

36. Playing with the cards that we're dealt

General Notes:
- Handouts were given out for the stakeholders to rank the options and provide their general comments/feedback
- Residential Parking Program may have to be revised to account for parking overflow into the residential areas
- Next steps: we will tie the commentary and recommendations into the report
- We are planning to present to City Council at the end of October
  o The exact dates will be published

Appendix B – Online Survey Results

1. If on-street parking spaces were limited to a maximum stay of 2 hours per day/per street block, would you be more likely to park in a garage or surface lot that allows for extended parking?
   a. Yes: 6
   b. No: 2
2. How far are you willing to walk from your destination for affordable parking?
   a. Within a block: 3
   b. 2-3 blocks: 8
   c. 4 blocks or more: 2
3. How long does it take you to find a parking space in Downtown?
   a. Within a minute: 0
   b. 1-5 minutes: 16
   c. 5-10 minutes: 3
   d. Over 10 minutes: 2