

Oklahoma City Downtown Parking Management Study

Prepared For:



EMBARCK



Prepared By:

Kimley»Horn

framework

EXECUTIVE SUMMARY

Downtown Oklahoma City and its surrounding districts that make up the area are experiencing change as an increase in growth and development revitalize the area. Ten years ago, the Downtown, Bricktown, Midtown, Automobile Alley, and Core to Shore areas were all disparate and individualized districts. With the completion of the Oklahoma City Streetcar, these areas are connected like never before, with more interaction and movement between areas with and without automobiles. The City is at a crossroads and the introduction of advanced parking management strategies is critical to the continued success within the Downtown Oklahoma City area.

Project Goals and Objectives

In the initial phases of the study, the project team worked with COTPA, the City, DowntownOKC, the Alliance and downtown stakeholders to define goals and objectives for the study that would guide the overall efforts of the process. Those goals and objectives were designed to be oriented around the community, making more efficient use of existing assets, creating a smarter investment process, and defining innovative and creative strategies to address future growth.

- Foster an open and inclusive process with area stakeholders
- Balance on-street and off-street parking demands
- Continuously improve parking management procedures and policies
 - Enhancing technology to provide real time parking information
 - Provide structures to guide decision making
 - Investigate opportunities for on-street revenue sharing
- Determine and locate supply-demand surpluses or deficits today and in the future

Define the Issues

The initial phases of the project focused on developing an understanding of today's parking and mobility conditions in the Downtown Oklahoma City area, including data collection, community outreach, and parking system analytics. The purpose of this phase was to define existing successes and challenges that could be used to leverage future growth.

Diagnose Solutions

The second phase of the project was used to diagnose the existing information and define how the future vision of Oklahoma City would be influenced by the application of parking management strategies.

Create Strategies

The final phase of the project created strategies and an action plan to implement future parking management strategies within the community.

Primary Observations

Five primary findings emerged that require consideration as COTPA and the City evaluate advanced parking management strategies.

- **Off-street parking is heavily underutilized and over built** – the private sector has largely relied on construction of on-site parking as development has occurred in recent years. As the area densifies, the need for centralized shared parking assets will be critical.
- **On-street parking has dynamic demand needs** – the six distinct districts all have differing needs for on-street parking management, including variations on price, enforcement, regulations, and management. COTPA and the City need to consider dynamic and data-driven approaches to curbside management.
- **Enforcement practices are inconsistent** – the enforcement of parking regulations needs to be modernized with emphasis given to turnover in high demand areas, allocation of resources to meet needs, and creation of customer-centric enforcement practices.
- **Evolving districts and neighborhoods require unique solutions** – each of the six districts needs to have a specialized approach to parking management. This may vary based on area context, growth opportunities, or specific-area challenges. The City, COTPA, local stakeholders, and the area governing boards should work collaboratively to create parking management that works for each area.
- **Parking & mobility should be intertwined to support a vibrant community** – the new non-vehicular investments and the parking-related investments need to work hand in hand to promote an efficient transportation system and a park once environment that promotes moving in and around Downtown Oklahoma City in a more thoughtful manner.

Creating an Advanced Approach to Parking Management

The initial step in advancing the approach to parking management is to define the overall philosophy of the program and how policies and practices will be applied. The following statements govern how the COTPA parking program will evolve moving forward and the goals of the program relative to community growth.

Parking Management

The goal of parking management within the community should be active collaboration between the City, stakeholders, and the private sector to efficiently provide parking as a shared resource for all users at all times.

Economic Development

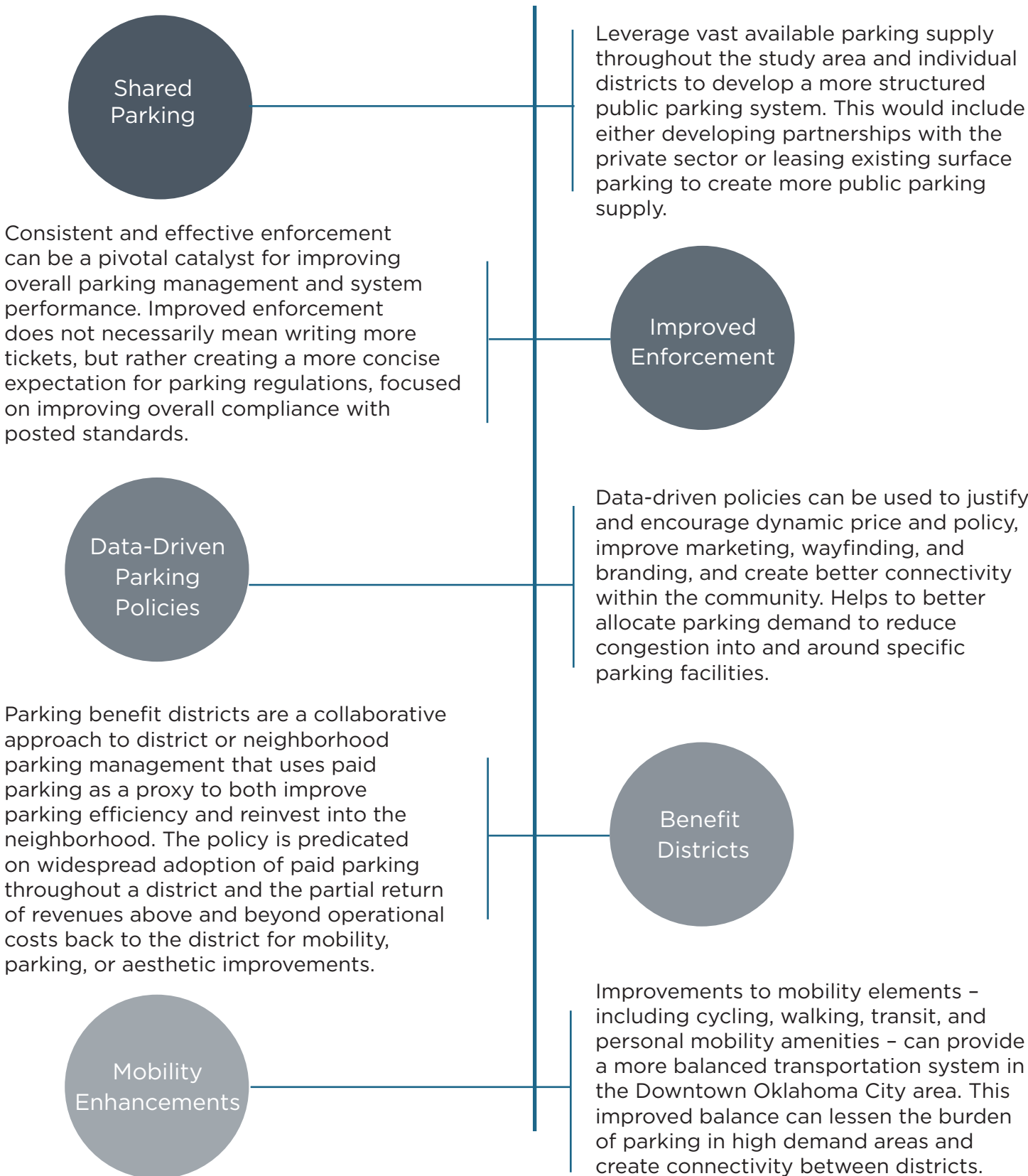
The parking management program should be structured to support a more efficient use of assets throughout the community, supporting a more efficient use of space and contributing to opportunities to create growth and infill development throughout the Downtown and its districts.

Integration with Mobility

The parking system should integrate directly with mobility investments in the community to support a park-once environment where patrons can reduce needs for single-occupant vehicle trips to move between destinations and districts in the Downtown.

Primary Recommendations

The project team developed a suite of recommendations and strategies that are intended to support the continuing evolution of the Downtown Oklahoma City area. Within the Policy section of this report, there are a number of opportunities for COTPA, the City, and their partners to consider now and into the future to continue growing the advanced parking management system. Below are the five primary recommendations that COTPA and the City need to consider.



Executive Summary

The following timeline for implementation summarizes some of the primary elements by each phase of the studies action plan.

SHORT TERM YEAR 1

- Implement mobile pay platform
- Implement new paid parking areas
- Implement data-driven pricing changes
- Modernize and transition enforcement

MID TERM YEARS 1 - 4

- Create and expand shared parking network
- Create code changes that support shared parking
- Evaluate Downtown Benefit District
- Evaluate performance metrics and program success

LONG TERM BEYOND 4 YEARS

- Expand shared parking
- Consider TDM & Modern Mitigation strategies
- Evaluate commercial/ neighborhood parking policies
- Consider district-based mobility investments

Table of Contents

Introduction.....	1
Policy.....	25
District Summaries.....	93
Action Plan.....	141



Introduction

Downtown Oklahoma City and its surrounding districts that make up the area are experiencing change as an increase in growth and development revitalize the area. Ten years ago, the Downtown, Bricktown, Midtown, Automobile Alley, and Core to Shore areas were all disparate and individualized districts. With the completion of the Oklahoma City Streetcar, these areas are connected like never before, with more interaction and movement between areas with and without automobiles. The City is at a crossroads and the introduction of advanced parking management strategies is critical to the continued success within the Downtown Oklahoma City area.

Why implement advanced parking management now?

Parking Management

America's evolving cities and downtowns are using parking management as an asset to support growth, manage changing and dynamic demands, and implement smart city concepts that can propel them into an unknown future.

Transportation Paradigm

The transportation ecosystem in America - stagnant and unevolving for more than 50 years - has seen rapid change over the past few years, with the introduction of micromobility elements and the impending move to full automation.

Downtown Vitality

The ongoing renewal and revitalization of America's urban areas is being driven by a desire for a more compact, walkable lifestyle. Parking is a critical ingredient to support good urban design. Parking can also be a critical roadblock to success, including over- and under-reliance on parking supply.

Project Goals and Objectives

In the initial phases of the study, the project team worked with COTPA, the City, Downtown OKC, the Alliance and downtown stakeholders to define goals and objectives for the study that would guide the overall efforts of the process. Those goals and objectives were designed to be oriented around the community, making more efficient use of existing assets, creating a smarter investment process, and defining innovative and creative strategies to address future growth.

- Foster an open and inclusive process with area stakeholders
- Balance on-street and off-street parking demands
- Continuously improve parking management procedures and policies
 - Enhancing technology to provide real time parking information
 - Provide structures to guide decision making
 - Investigate opportunities for on-street revenue sharing
- Determine and locate supply-demand surpluses or deficits today and in the future

With the many changes downtown, such as the recent completion and opening of the 40-acre upper section of Scissortail Park and the opening later this year of a new 300,000 sq. ft. Convention Center, and the planned new developments to come in the near future, this study focuses on how to position COTPA and the City to continue to grow the success of the parking program, while helping to orient the community around changing transportation demographics to realize the vision and expectations of the Downtown community. The study provides analysis and information to help Downtown embrace new parking management practices and define how parking management can continue to evolve to serve the community.

STEP 01 DEFINE

The initial phases of the project focused on developing an understanding of today's parking and mobility conditions in the Downtown Oklahoma City area, including data collection, community outreach, and parking system analytics. The purpose of this phase was to define existing successes and challenges that could be used to leverage future growth.

STEP 02 DIAGNOSE

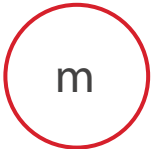
The second phase of the project was used to diagnose the existing information and define how the future vision of Oklahoma City would be influenced by the application of parking management strategies.

STEP 03 TREAT

The final phase of the project created strategies and an action plan to implement future parking management strategies within the community.

STUDY AREA

This project is focused on the Downtown Oklahoma City area bounded by 13th Street to the north, Classen Boulevard to the west, Interstate 235 to the east, and 3rd Street to the south. This is a very diverse area, including areas that are at full development and areas that are looking to achieve full development in the foreseeable future. The study area is further aggregated by six unique districts that have their own opportunities and challenges. These districts are described below and identified in the map on the following page.



Midtown is a diverse district that includes highly active nightlife uses, a hospital, smaller scale office settings, and a variety of residential types. The district parking needs vary across its boundaries.



Automobile Alley is a growing commercial destination, highlighted by unique retail and restaurant destinations. The Broadway corridor is a lively activity center on both sides of an auto-oriented corridor.



Deep Deuce, situated between Bricktown and Automobile Alley, is a residential district that includes a unique blend of housing types. The area has minimal parking problems today but parking needs could be heavily impacted by development in the adjacent districts.



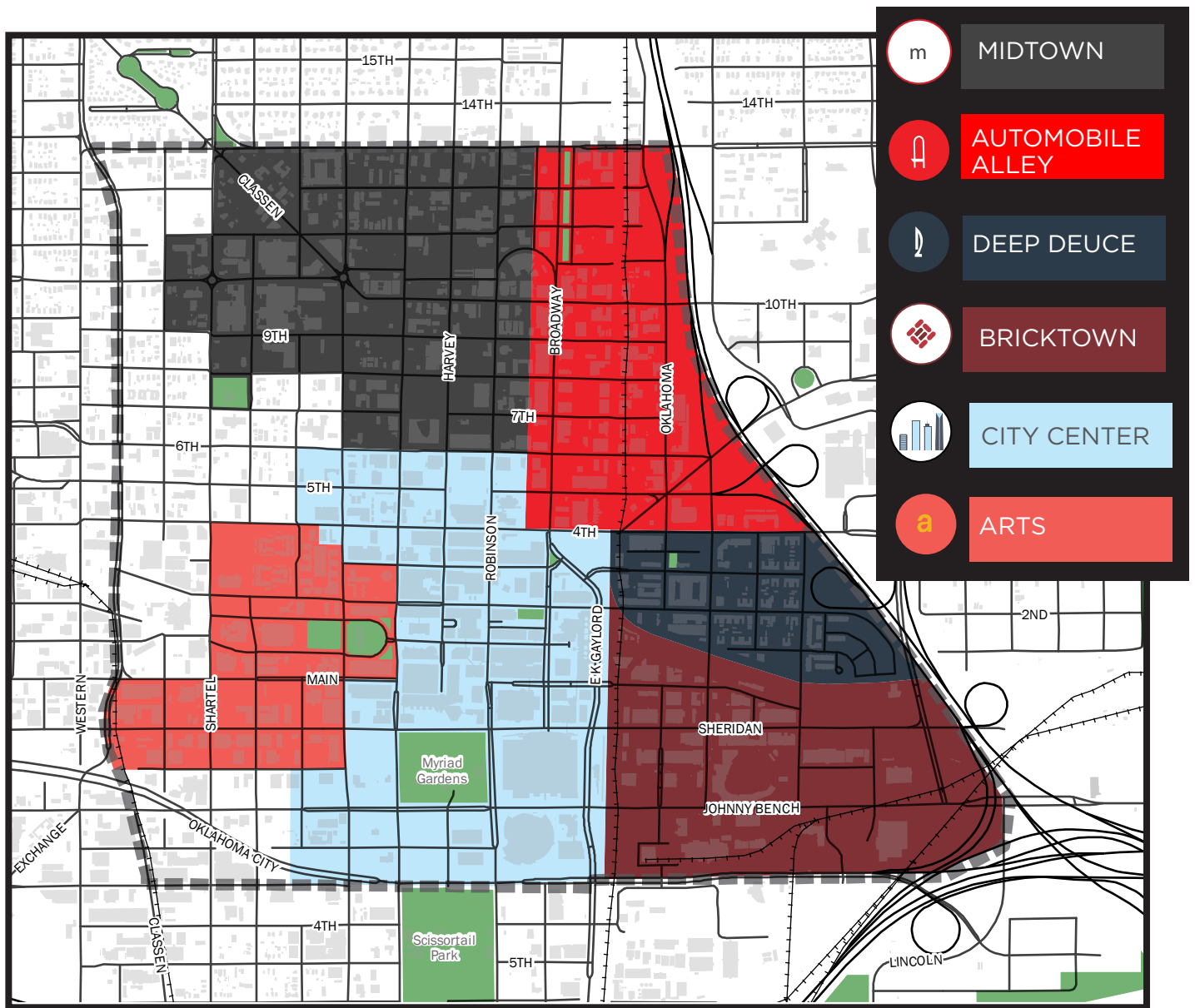
Bricktown is perhaps the most dynamic district in the Downtown, with high-intensity nightlife, event, and retail uses. The area continues to see development of vacant parcels and surface parking, which creates unique future parking needs in the area.



The City Center is the heart of the Downtown Oklahoma City area with high intensity office, commercial, and event uses. The area is the most highly managed from a parking perspective.



The Arts District is a mixture of cultural amenities, institutional users, and new growth. The district is rapidly evolving, with growing pains around parking and mobility.



Throughout the remainder of this report, these districts will be defined and evaluated separately, including reviews of today’s conditions and strategies to address changing futures. While considered individually, it is important to consider strategies that are defined for one district will likely have consequences on other districts. Therefore it is important to be collaborative with the planning and implementation of recommendations moving forward.

REPORT STRUCTURE

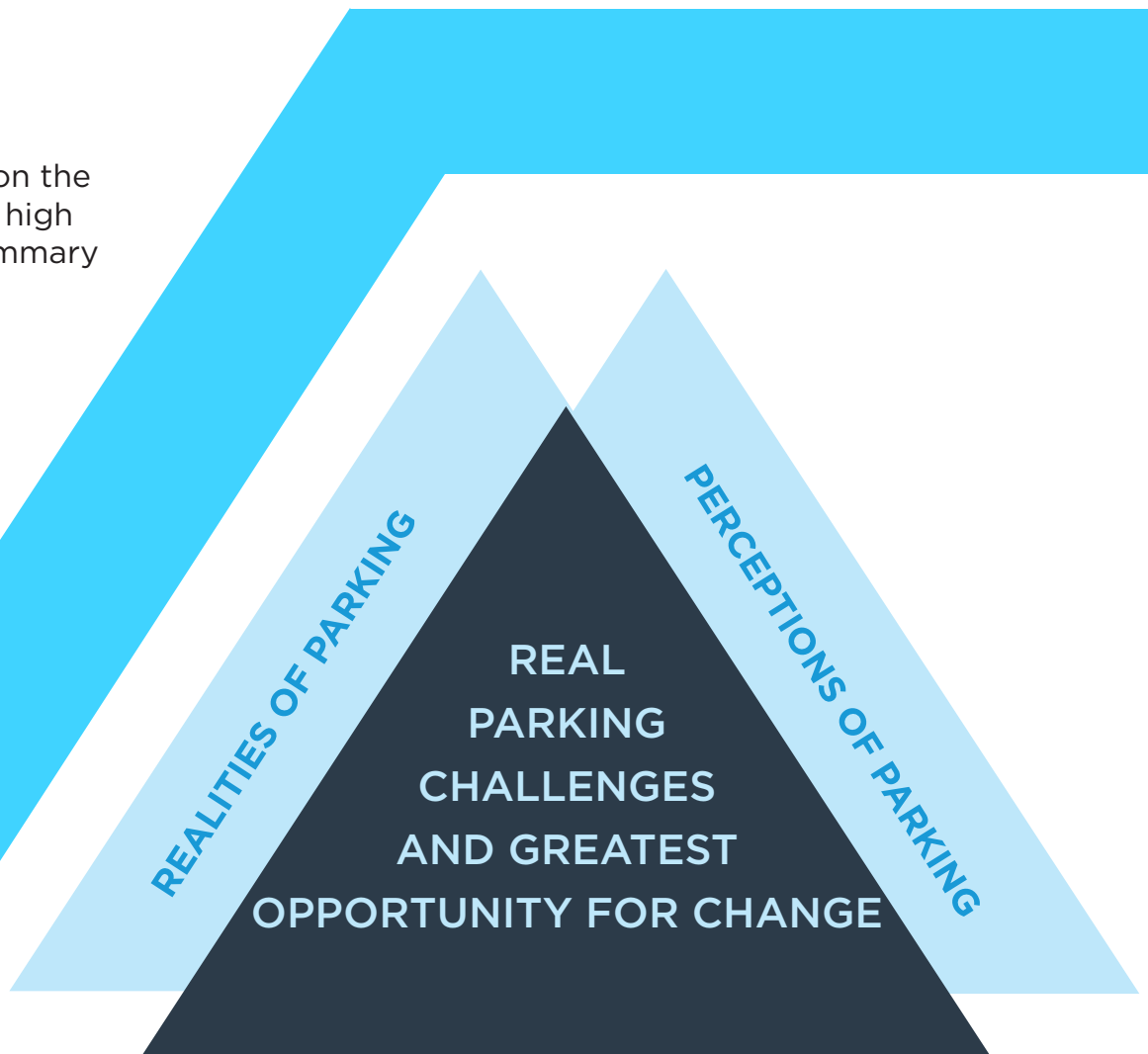


Study Area Analytics

The study included the collection, evaluation, and summary of critical data throughout the Downtown Oklahoma City study area. The data collected for this effort includes:

- Parking system analytics, including asset and performance review
- Parking system inventory, including public and private off-street space counts and typology and a detailed curbside inventory
- Public and private parking system occupancy, including two days of representative data throughout the study area
- Public parking and transportation system perceptions, through the use of an online survey and district-level town halls

The collected data is represented on the following pages at a high level, providing a summary of the overall study area conditions. The data is summarized at a granular level throughout the district area summaries later in this report.



The data collected includes a mixture of both quantifiable data collected and measured in the field and perception level data that was extracted through conversations with the Oklahoma City community. While these are often seen as diverging data points, the intersection of these two areas is where the optimal parking management solutions are found. For example, occupancy data might indicate that there is ample parking in an area, while survey data indicates that the community finds parking to be a scarce resource. When reviewing these two data points together, the combined findings might indicate that wayfinding to available parking or the restrictions governing parking might create the nuanced challenge.

ON-STREET PARKING MANAGEMENT

MORE THAN
METERED SPACES **1,300**

38 MILLION MINUTES OF PARKING PURCHASED AT THESE METERS

MORE THAN **585,000** PARKING TRANSACTIONS

New pay-by-license-plate meters introduced in 2018 along with new rates, resulting in:

- Better turnover in high demand areas
- Higher usage of credit cards at the meters
- Payment type options (coin/credit) made available system wide

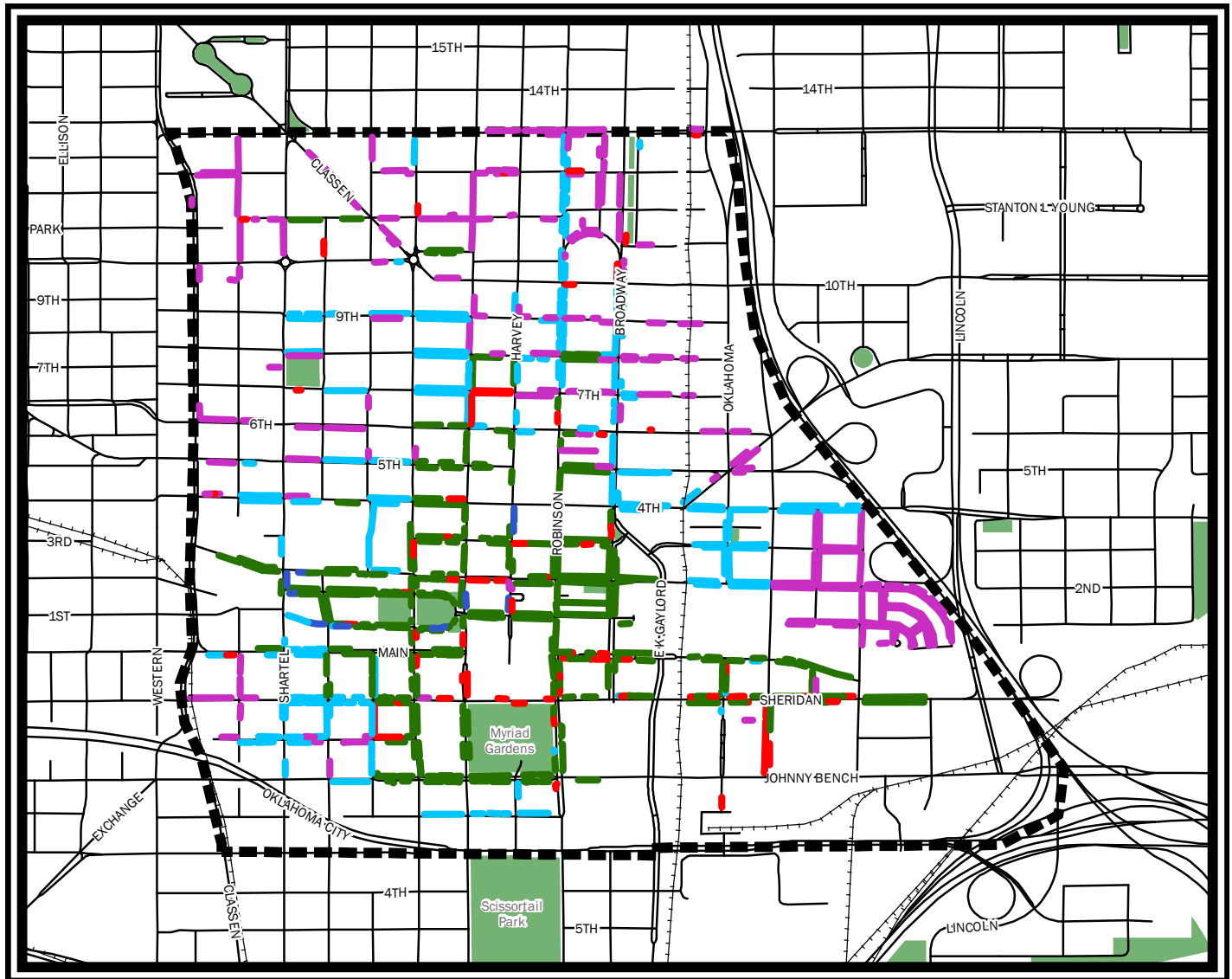
Public parking in Downtown Oklahoma City is primarily managed by COTPA, including a mixture of on-street and off-street parking assets. Most of these assets are found in the heart of the City Center and the immediately adjacent districts. As the area expands outward from the core, the presence of parking management is more scarce. The following summaries define the current parking management environment in the Downtown Oklahoma City Area.

COTPA and the City manage the application, maintenance, and collection of paid parking throughout the Downtown OKC area. There are paid parking areas interspersed throughout the City Center, Bricktown, and Arts District areas. Time regulated and free parking are found on-street throughout all of the other districts.

On-street parking rates in Downtown Oklahoma City are set at \$2 per hour throughout the downtown area. When compared with similarly sized cities (land and population), the rates are consistent with peers throughout the industry. Many of those peers employ multiple rate structures, basing cost on the demand for parking.

CITY	ON-STREET HOURLY RATES
OKLAHOMA CITY, OK	----- \$2
WASHINGTON , DC	----- \$2.30 - \$7 *
NASHVILLE, TN	----- \$1.50
PORTLAND, OR	----- \$1 - \$2 *
DETROIT, MI	----- \$1 - \$2 *
LOUISVILLE, KY	----- \$.50 - \$1.50 *
BALTIMORE, MD	----- \$2

(* THESE PROGRAMS IMPLEMENT DYNAMIC PRICING)



CATEGORY	SPACES
UNREGULATED PARKING	1,408
LOADING ZONE	311
PAID METER PARKING	1,300
CITY/GOVERNMENT PERMIT	56
TIME LIMITED PARKING	1,210

On-Street Inventory

- Unregulated Parking
- Loading Zone
- Paid Meter Parking
- City/Government Permit
- Time Limited Parking

OFF-STREET PARKING MANAGEMENT

MORE THAN 3,600
PARKING SPACES
IN 4 COTPA-OWNED
FACILITIES

Parking transactions come from three sources: Monthly, transient, & event. The 2019 fiscal year breakdown of these sources includes:

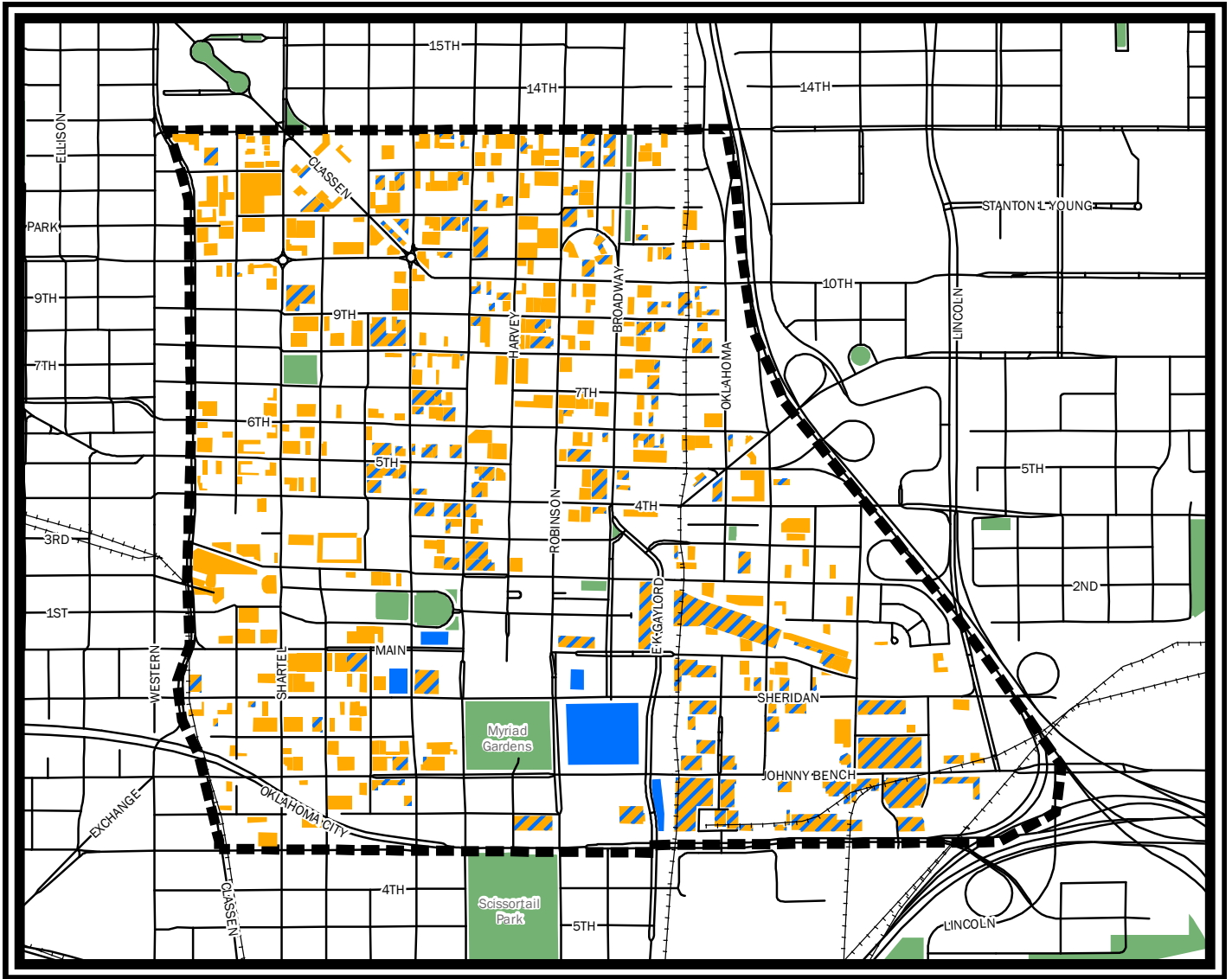
- 60% MONTHLY
- 15% TRANSIENT
- 25% EVENT

The transaction profile has seen an increase in event revenues, while monthly and transient revenue have declined

COTPA manages four parking garages, primarily located in the City Center and the Arts District. A new parking garage is under construction near the new Convention Center, adjacent to Scissortail Park. The parking garages are primarily intended to support monthly parking needs, daily transient parking, and the surges in parking demand during the various Downtown Oklahoma City events.

Industry best management practices identify that off-street parking prices should be set lower than on-street prices to incentivize better balance with on-street parking. Currently OKC's municipal parking system is \$2 per hour for both off-street and on-street parking.





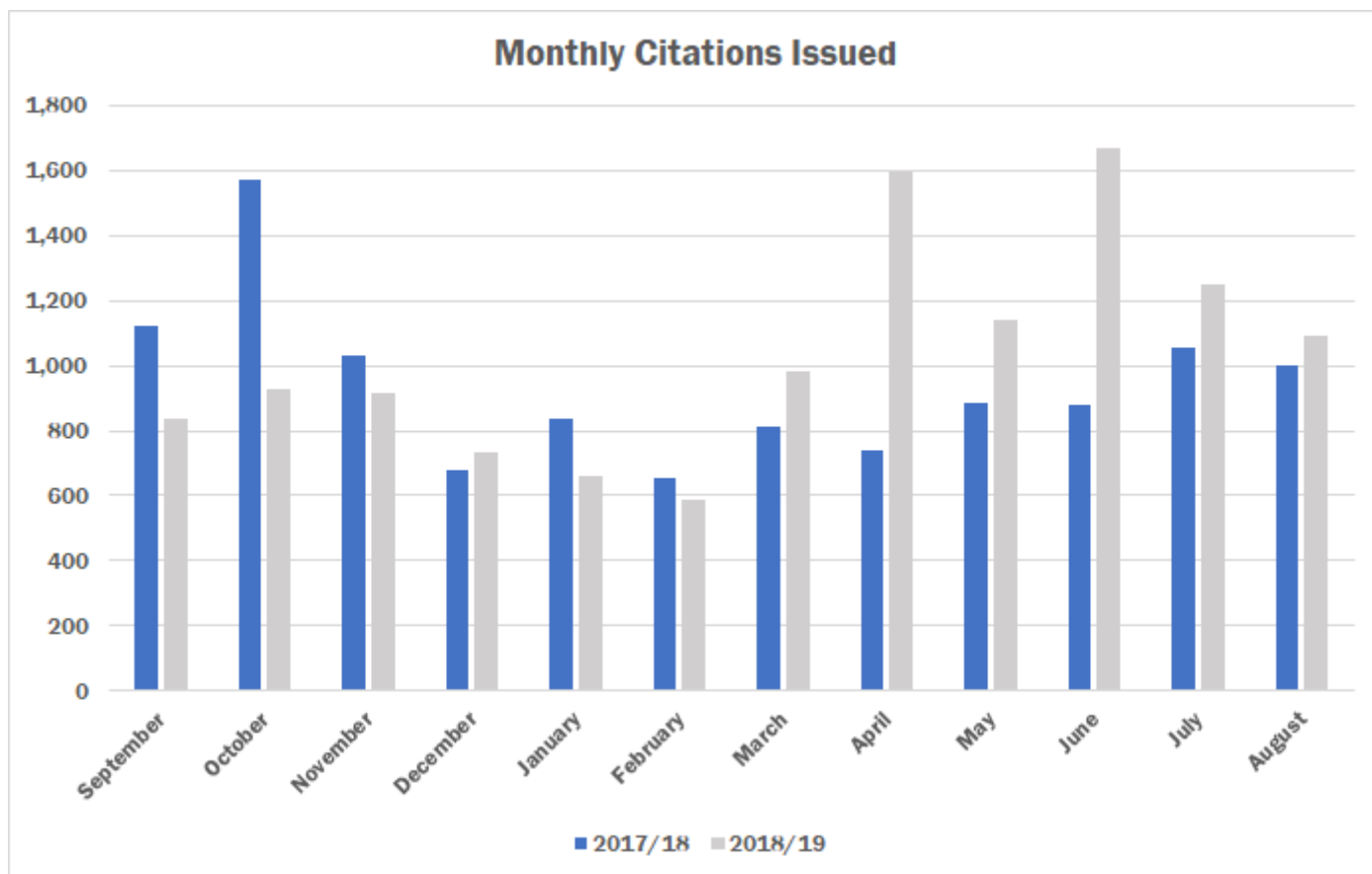
CATEGORY	SPACES
PUBLIC PARKING	3,788
PRIVATE PARKING	17,330
PRIVATE PARKING WITH PUBLIC ACCESS	15,763

Off-Street Inventory

- Public Parking
- Private Parking
- Private Parking with Public Access
- Study Area

PARKING ENFORCEMENT

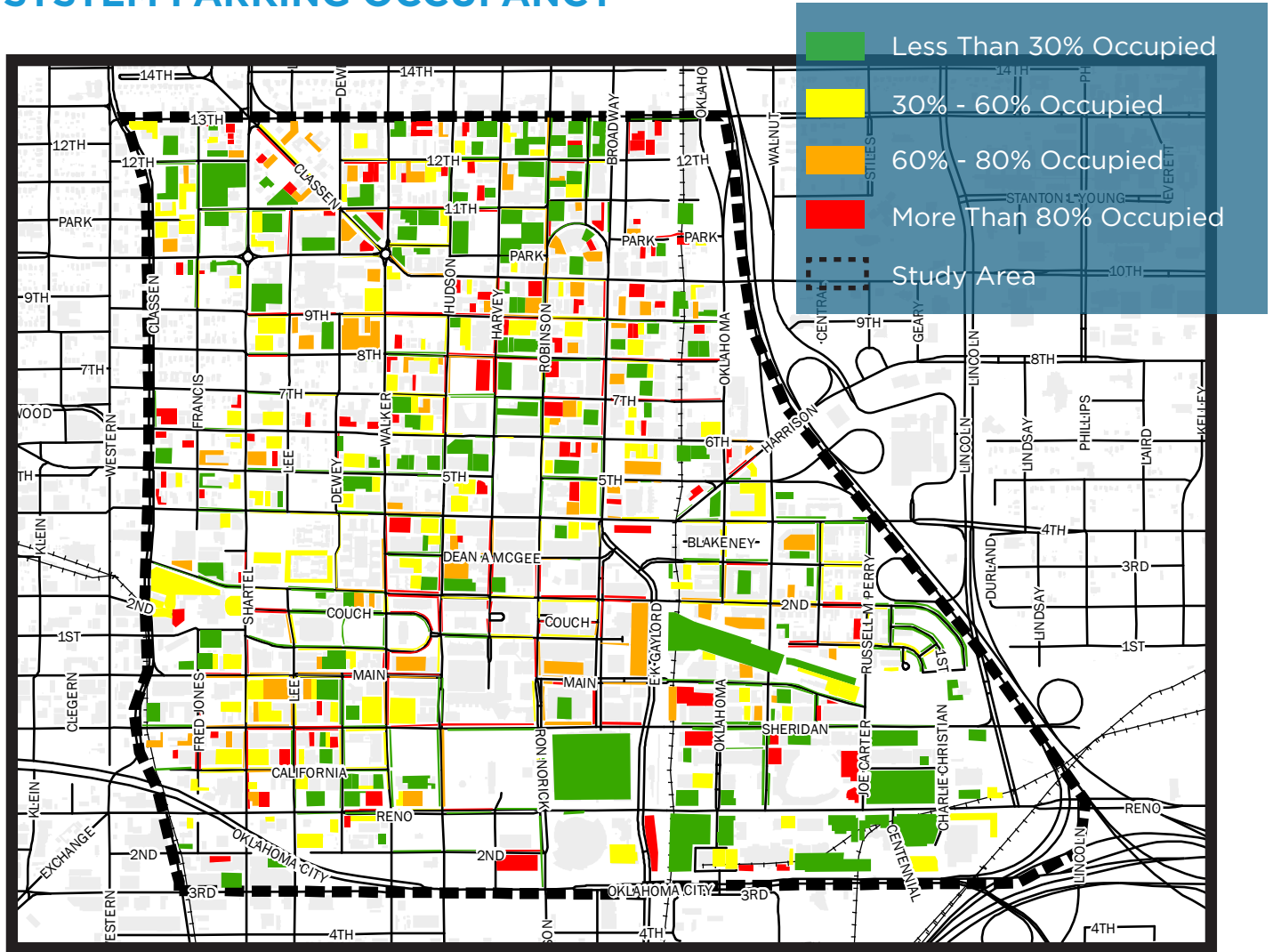
The City's Police Department provides parking enforcement for the on-street parking system. The unit is outfitted with License Plate Recognition equipment, and focuses primarily on paid metered parking areas unless complaints are provided by residents or business owners in other districts. The chart below provides a breakdown of citations per month for the past two years. With the exception of more recent months, the prevailing trend was an overall decrease in citations issued.



The need for consistent parking enforcement was cited repeatedly by stakeholders, survey respondents, and the steering committee as a challenge to efficient parking management and on-street parking turnover.



SYSTEM PARKING OCCUPANCY



Parking utilization data was collected on typical weekdays in April and July 2019. Data was collected between 8am and 8pm. On-street data was collected utilizing dashcams and license plate recognition software, while off-street data was collected manually.

OCCUPANCY SNAPSHOT



23,137

Empty Spaces at Peak Conditions



Equivalent to 141
Unused Football Fields



MOBILITY IN DOWNTOWN OKLAHOMA CITY

Over the past few years, the dynamic of transportation and mobility options has dramatically changed in Downtown Oklahoma City. New infrastructure and options are connecting the Downtown districts like never before. Mobility options are identified on the map below and include:



Oklahoma City Streetcar – the newly opened system connects all six of the Downtown districts and provides a way for employees, residents, and downtown visitors to move about the downtown area without the need for a passenger car. As ridership continues to rise, the streetcar could become the most valuable asset in the community to promote a combination of mobility options for moving around.



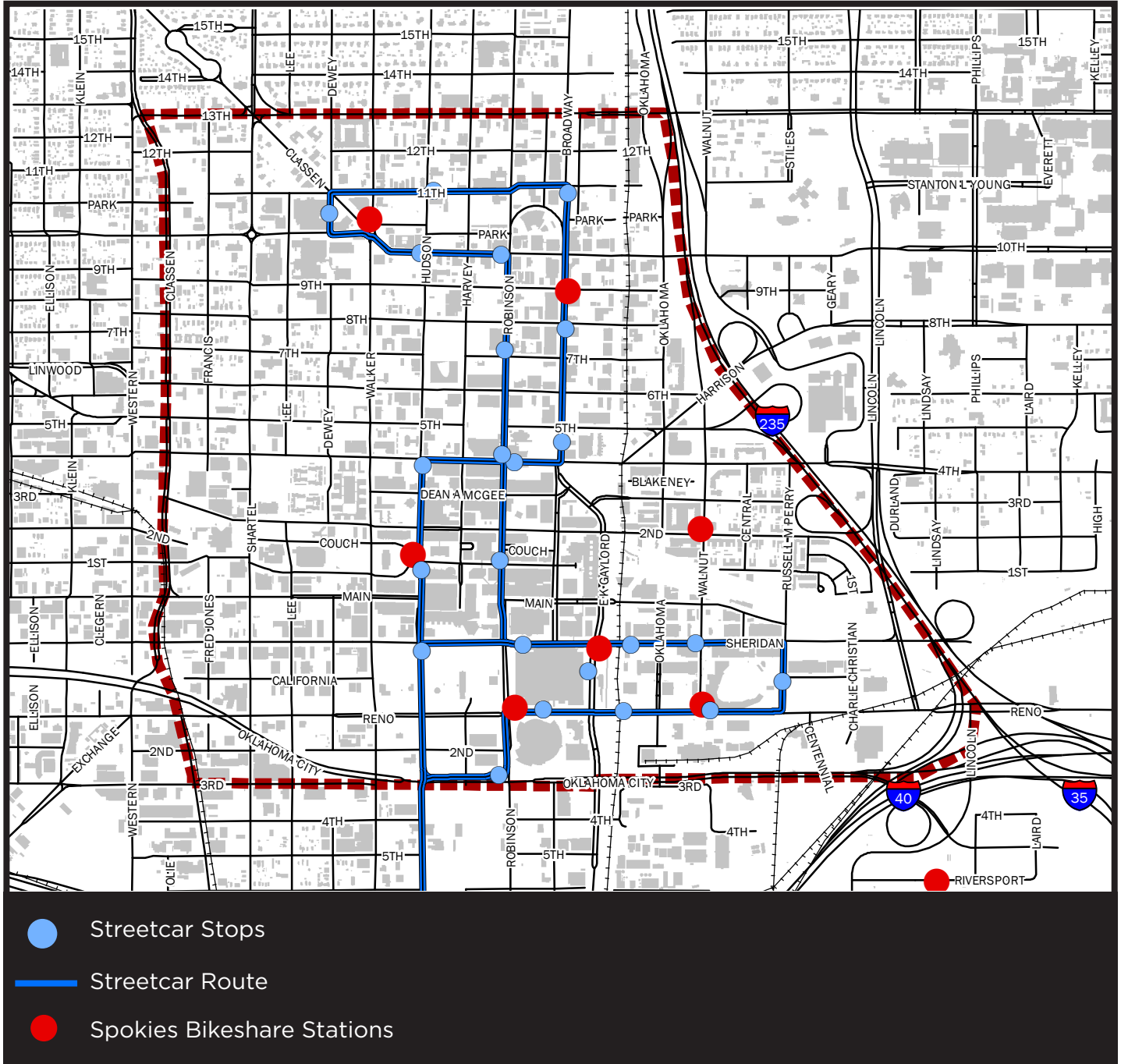
Spokies Bikeshare – the docked bikeshare provides a convenient option throughout the downtown area to connect for shorter trips. The stations are located throughout the downtown area and serve first/last mile trips from streetcar and parking destinations. Dockless bikes are a recent addition to the Spokies system. Currently, Spokies has 40 docked bikes and 25 undocked bikes.



Dockless scooters – within the last few years, a number of personal electric scooters have been deployed throughout the community. These devices provide a seamless connection between short-distance destinations. With appropriate management and collaboration, these micromobility options can be a strategic asset to the community.

The Mobility Paradigm

The transportation and parking industry is being rapidly transformed by the introduction of new mobility options, ranging from fixed guideway and rubber tire transit, micromobility, and shared assets. This change is instigated by a desire for modal options by commuters, residents, and visitors. For optimal success, the parking management strategy needs to include these elements and leverage their use for reduced parking demands.



FUTURE PROJECTIONS AND SCENARIO PLANNING

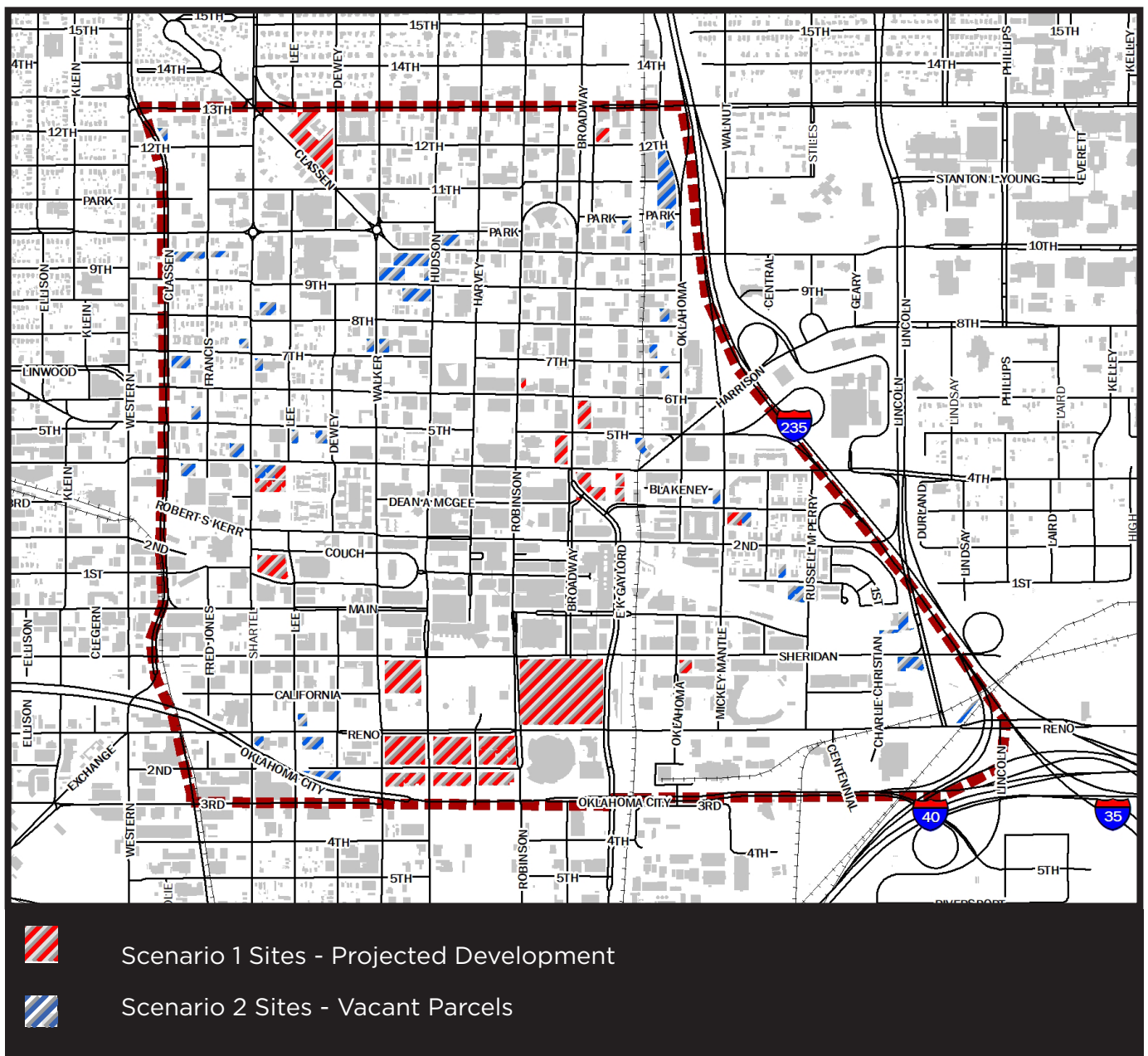
In latter sections of this report, parking demand projections for each of the districts will be discussed. The parking demand projections in this study were based on projected development patterns and a vacant parcel analysis, defined with input from Downtown Oklahoma City stakeholders. The demand projections were completed using Kimley-Horn’s proprietary Park+ modeling application, which utilizes a combination of spatial analysis, gravity modeling, and localized data inputs to predict parking needs. The model was used as a scenario planning tool to define the parking needs for Downtown Oklahoma City and each of the districts, as well as the impacts of certain parking management strategies.

The map on the following page provides an overview of the expected development sites modeled in the Park+ modeling application. These sites were based on known, proposed, or potential development projects defined by the stakeholder group. The modeled development intensities were based on input from the Downtown Development Framework, which defines vision and development levels throughout the community. More information about the outputs of this model will be defined in the district-area profiles at the end of this report.



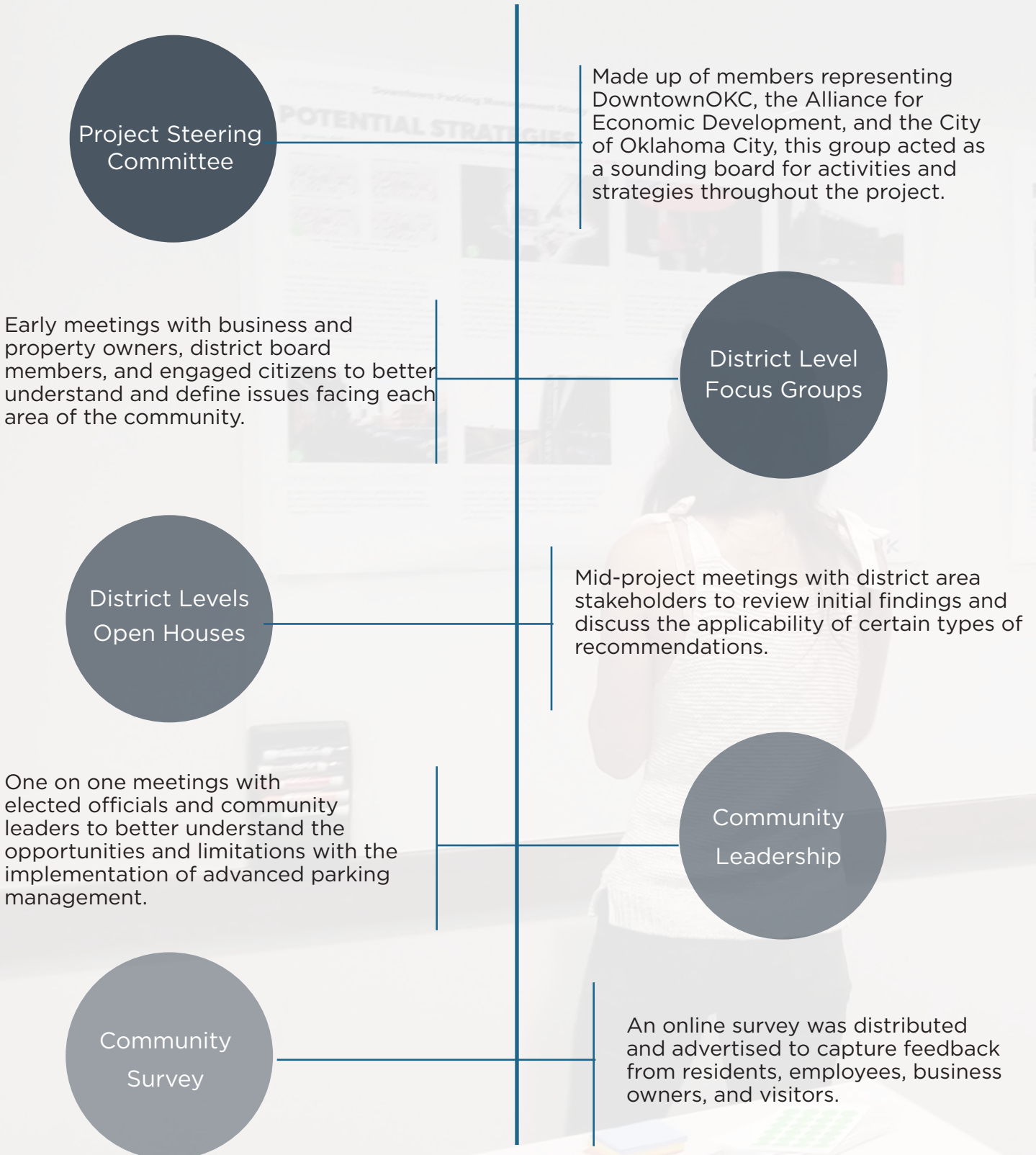
The maps in this section identify potential project sites for projected development sites (Scenario 1) and vacant parcels that could develop (Scenario 2). The table below provides an approximate summary of the development potential for those sites, as defined by the Downtown Development Framework.

Land Use	Scenario 1	Scenario 2
Retail	1,201,800 Square Feet	2,205,000 Square Feet
Office	3,507,600 Square Feet	2,155,000 Square Feet
Residential	4,400 Units	3,100 Units
Hotel	1,300 Rooms	N/A









COMMUNITY OUTREACH

In addition to the quantifiable analytics conducted on the parking system, the project team also engaged the greater Oklahoma City community in a variety of outreach exercises to gather information related to the use and efficiency of the parking system. The outreach components of the project included:



INITIAL PERCEPTIONS

In the early stages of the study, the project team engaged the steering committee and district level focus groups in an exercise to define issues and opportunities. This Thought Wall exercise was meant to tease out known and unknown concerns to help drive the direction of the project. The exercise was driven by the following five categories: **Parking Supply, Commute Options, Curb Lane Management, Policy and Regulations,** and **Pricing.** Below are the top three outcomes from each of the stakeholder groups.

Stakeholders	Parking Supply	Commute Options	Curb Lane Management	Policy and Regulations	Pricing
 Arts District  City Center	Parking for streetcar connections	Consider area visitors	Better consistency with curb side policies	Better wayfinding and navigation and better enforcement	Demand based
 Bricktown  Deep Deuce	Event-based parking challenges	Create park-and-ride options from another district	Street design considerations for urban design	Right-sized parking considerations and better enforcement	Demand based
 Midtown	Create more public/shared parking	Create park-and-ride options	Traffic calming and pedestrian safety	Parking benefit district and better enforcement	Demand based
 Automobile Alley	Need more public parking	Pedestrian safety and walkability	More on-street parking	Better enforcement	Add paid on-street parking
Steering Committee	Better use of existing parking	Focus on all transportation options	Dynamic curbside practices	Parking benefit districts and better enforcement	Demand based

ONLINE COMMUNITY SURVEY

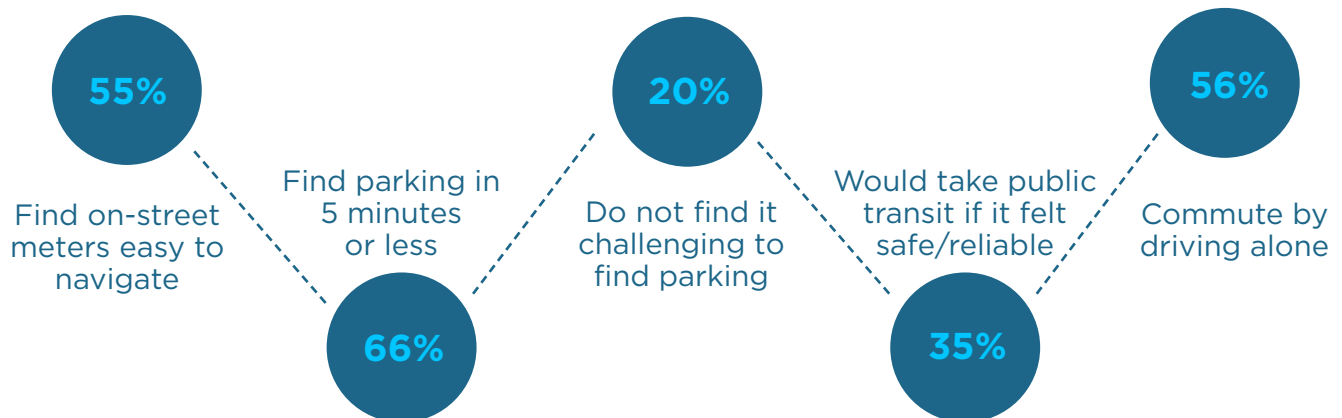
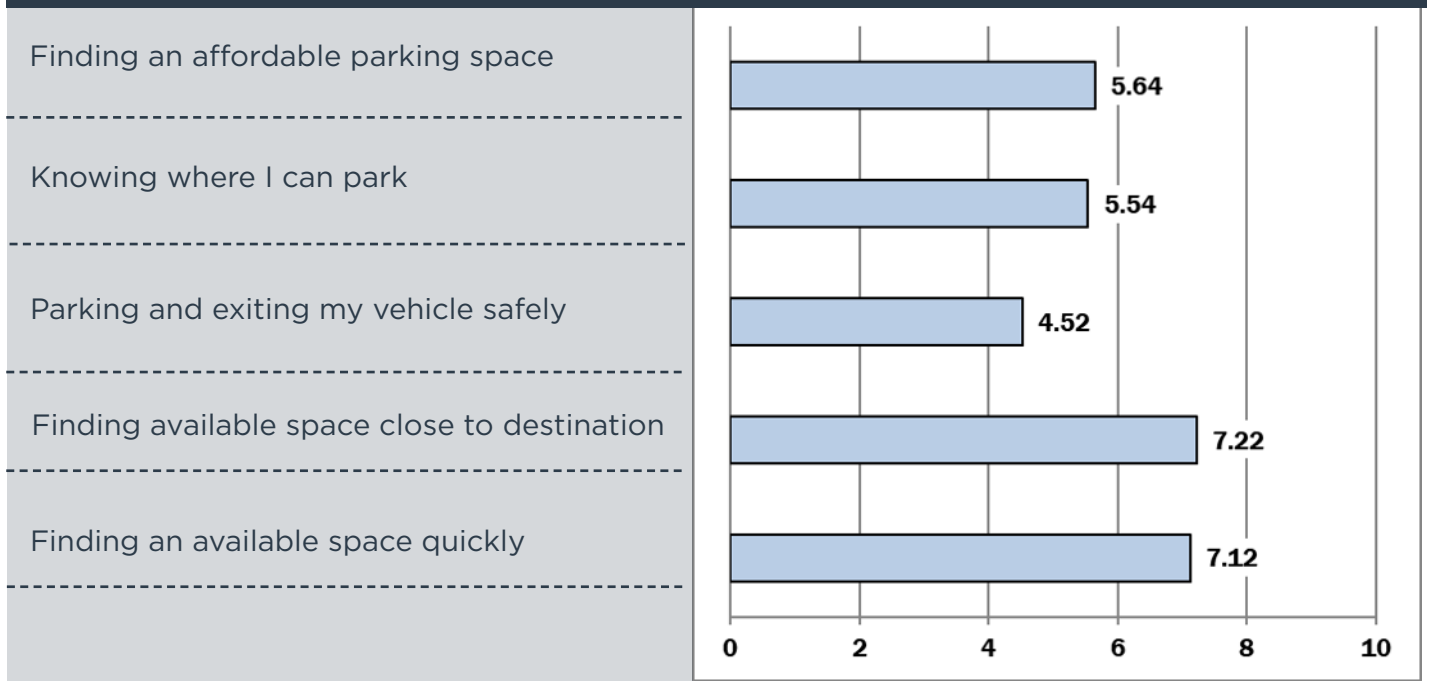
From mid-May to late-July 2019, over 400 individuals responded to the online survey, representing each district in the study area as visitors, employees, residents, and business owners. Below are some key demographic findings and overall takeaways from the survey. Specific district-level takeaways can be found in each of the district summary sections late in the report.

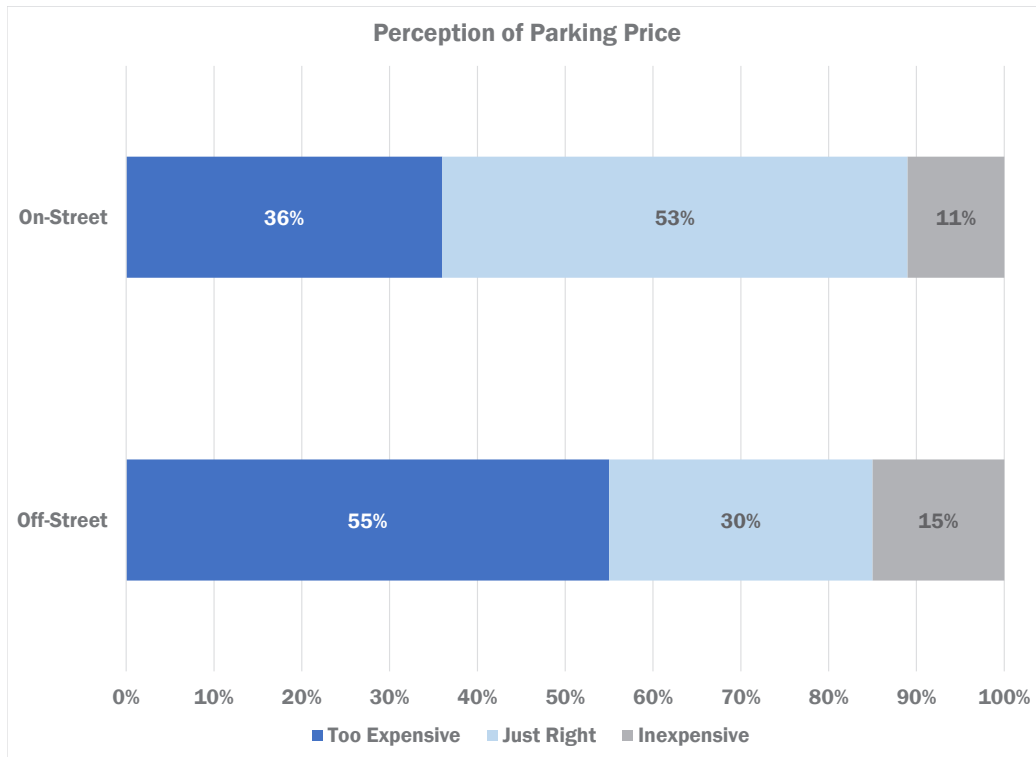
Who Took The Survey: 434 Total Responses

15% Residents · 20% Business Owners · 50% Employees · 15% Visitors

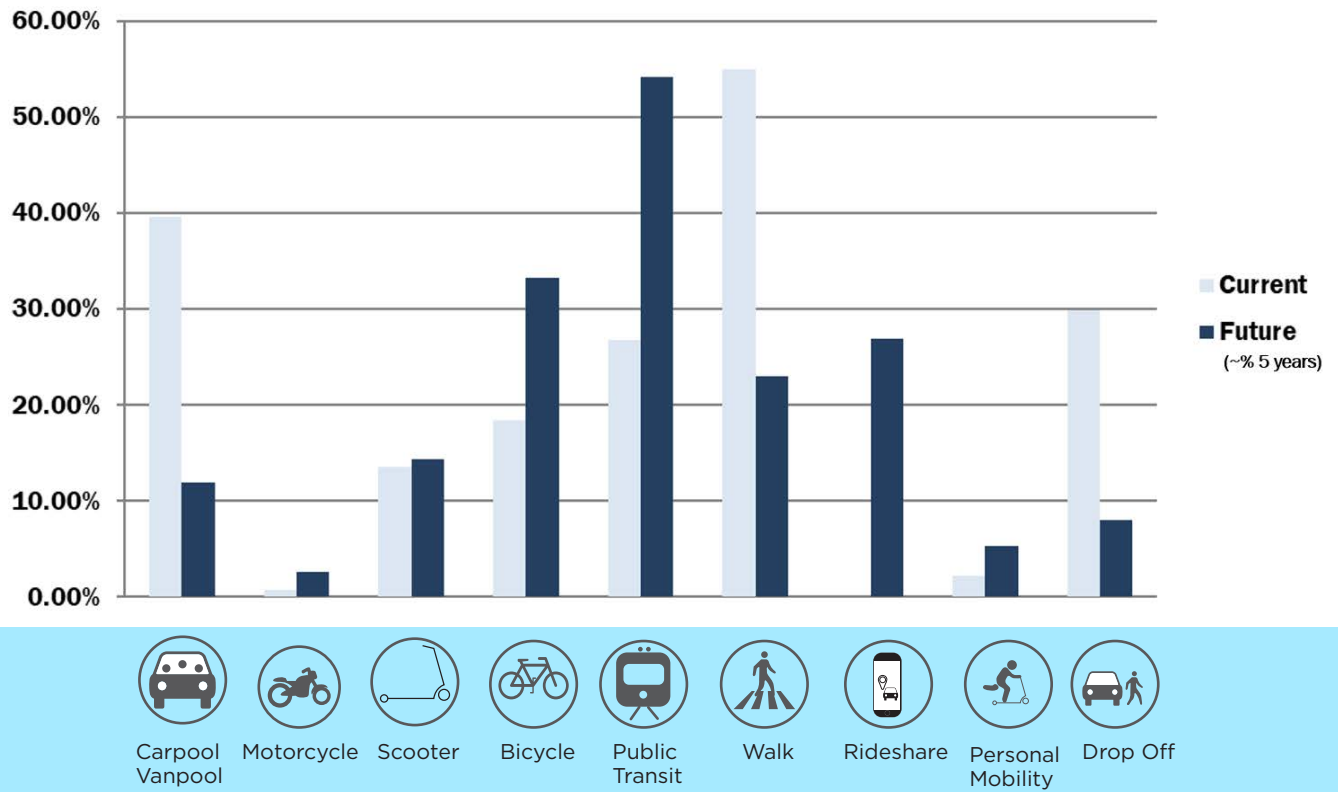
** Results indicate the primary response*

Overall Satisfaction with public parking is a 5.7 out of 10 Most Challenging Aspect of Parking





Alternate Mode Preferences



Cycling and transit have the highest potential for increase
 Walking trips appear to be the most likely to reduce as modes change
 There is heightened interest in better usage of rideshare trips

KEY FINDINGS

Based on the data gathered through both the community outreach and the data analytics components of this project, the project team has developed key findings and takeaways below. These findings were used to define the development of broad program-defining policies and specific strategies and implementation steps at the community- and district-level. Each key element listed below includes findings from the data gathering efforts, as well as opportunities and challenges that should be considered. Finally, this section ends with a summary of the key findings from analytics stages of this project and their meanings.



Policy

Key Takeaway:

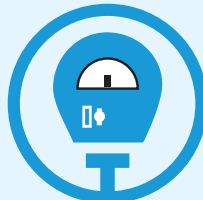
COTPA's approach to parking management has evolved tremendously in the last few years. Continued efforts to modernize and consolidate the programs activities should be evaluated and implemented.

Opportunities:

Right-sizing the approach to parking should help to create a more balanced approach to development and the provision of parking assets, while creating a more holistic approach to parking management could allow for continued growth while minimizing parking implementation.

Challenges:

Collaboration between internal and external stakeholders will be critical, to ensure that successful partnerships are formed, materialized, and leveraged throughout the community.



Pricing

Key Takeaway:

Using price as a tool to allocate demand and balance efficient use of the parking system should be a primary tool. This could include the introduction of dynamic pricing elements and the expansion of paid parking in districts that are currently free.

Opportunities:

Using data-driven approaches to define pricing and management structures could improve performance of the system and better balance demands between on- and off-street assets.

Challenges:

Implementation could face opposition if COTPA and the City does not use transparent and open tools to communicate the needs, opportunities, and benefits of change.



Management

Key Takeaway:

Advanced parking management provides an opportunity within the community to streamline operations, improve customer service, and promote parking as a tool for community growth and development.

Opportunities:

Consolidating all components of the parking system including maintenance, operations, enforcement, and regulation into one functional department should help to balance the use of tools for parking management and improve the efficiency of parking throughout the community.

Challenges:

Removing parking duties from some departments to consolidate into one. Will require a data-driven and intensive management approach that could require additional staffing and departmental resources.



Investment

Key Takeaway:

Future investments in parking management need to be focused on customer service and system performance, rather than creation of new capacity. Shared and collaborative assets should be prioritized above new singular facilities.

Opportunities:

Prioritization of investments for system assets can provide a more well-rounded approach to parking management, with more emphasis given to high-producing investments.

Challenges:

Changing perceptions that more new parking is the priority, rather than the more efficient utilization of existing assets.



Mobility

Key Takeaway:

With the rapid advancement of non-traditional mobility options in the Downtown Oklahoma City area, there is a strong opportunity to change patterns of travel into and around the study area and district areas.

Opportunities:

Leveraging investments in streetcar, transit, and micromobility can help to position the City and individual districts to promote park once activities.

Challenges:

Changing behaviors can be challenging without good education and marketing campaigns that relay the benefits and incentives of alternative travel patterns.



Customer Service

Key Takeaway:

COTPA and the City have done a tremendous job over the last few years focusing on improving the parking system to promote good customer service. Advanced parking management strategies should continue this effort and promote easy and understandable parking options.

Opportunities:

Improved payment options, wayfinding elements, and communication schemes can continue to make the system work for the Oklahoma City community. Creation of shared parking assets from private parking can improve the coverage of the public parking system.

Challenges:

Communication is essential for maintaining a positive perception of the parking program. The parking program must also have all elements working in concert to support the customer service message.

ON-STREET NEEDS



- On-street parking should be priced higher than off-street parking
- Flexible and convenient payment options, including mobile payment
- More reliable and consistent on-street parking enforcement
- Loading/short-term parking adjacent to high-turnover uses, such as libraries and coffee shops

OFF-STREET NEEDS



- More information/education/communication about parking options downtown
- New surface parking should be minimized moving forward
- More off-street public parking in district areas further from the City Center core

PRIMARY OBSERVATIONS

Based on this program assessment, five primary findings emerged that require consideration as COTPA and the City evaluate advanced parking management strategies.

- Off-street parking is heavily underutilized and over built – the private sector has largely relied on construction of on-site parking as development has occurred in recent years. As the area densifies, the need for centralized shared parking assets will be critical.
- On-street parking has dynamic demand needs – the six distinct districts all have differing needs for on-street parking management, including variations on price, enforcement, regulations, and management. COTPA and the City need to consider dynamic and data-driven approaches to curbside management.
- Enforcement practices are inconsistent – the enforcement of parking regulations needs to be modernized with emphasis given to turnover in high demand areas, allocation of resources to meet needs, and creation of customer-centric enforcement practices.
- Evolving districts and neighborhoods require unique solutions – each of the six districts needs to have a specialized approach to parking management. This may vary based on area context, growth opportunities, or specific-area challenges. The City, COTPA, local stakeholders, and the district governing boards should work collaboratively to create parking management that works for each area.
- Parking & mobility should be intertwined to support a vibrant community – the new non-vehicular investments and the parking-related investments need to work hand in hand to promote an efficient transportation system and a park once environment that promotes moving in and around Downtown Oklahoma City in a more thoughtful manner.





Policy

POLICY MANAGEMENT FRAMEWORK

Advanced parking management strategies should be rooted in policies and supportive philosophies that guide the parking program and its impacts on community growth, mobility enhancement, and economic development. The core of any parking management strategy should be remaining open and flexible to opportunities that present themselves with changing community demographics, mobility elements, parking behavior, and changes in available tools and technologies.

This policy framework introduces primary policy concepts and elements that should govern the growth of the COTPA parking program.

The initial step in advancing the approach to parking management is to define the overall philosophy of the program and how policies and practices will be applied. The following statements govern how the COTPA parking program will evolve moving forward and the goals of the program relative to community growth.



Parking Management

The goal of parking management within the community should be active collaboration between the City, stakeholders, and the private sector to efficiently provide parking as a shared resource for all users at all times.

Economic Development

The parking management program should be structured to support a more efficient use of assets throughout the community, supporting a more efficient use of space and contributing to opportunities to create growth and infill development throughout the Downtown and its districts.

Integration with Mobility

The parking system should integrate directly with mobility investments in the community to support a park-once environment where patrons can reduce needs for single-occupant vehicle trips to move between destinations and districts in the Downtown.

PURPOSE

Leveraging policy and programming strategies to address parking and mobility challenges needs to be a core tenet of how the COTPA parking system is managed moving forward. There are a range of policy-based strategies to consider throughout the community and in each individual district. This framework contains various strategic policies for consideration. Each topic area is presented with sub topics for consideration, listed below:

- Intended Benefits - the optimal outcomes COTPA should achieve from the implementation of the strategy
- Potential Challenges - unintended consequences of implementation to monitor
- Required Changes - code, policy, or programmatic changes to consider
- Supporting Strategies - parallel strategies that will improve the performance of or benefit from the implementation of this strategy
- Key Partnerships - agencies or organizations within the City that should be engaged in the design and implementation of these strategies
- Performance Metrics - data points that will help to define and manage the success of these strategies
- Districts to Consider - areas within the Downtown Oklahoma City community that will benefit from the implementation of this strategy



Each of the policies presented in subsequent sections apply to one (or more) of the six major character areas defined below.



Policy

Strategies and recommendations intended to promote better use of the system and customer service through enhanced policies, practices, and procedures. These are rooted in applying policies and practices to influence outcomes.



Pricing

Strategies that aim to balance parking demands and allocate resources based on the demand for parking and support management desires. This would include pricing practices that are data-driven and support balanced utilization.



Management

Recommendations intended to improve management of parking and mobility assets, balancing demands between on-street and off-street parking assets. These are rooted in promoting optimal use of the system and promoting customer service.



Investment

Considerations for investments in new program assets to improve customer service, operations, and program performance. These investments could be parking related, technology related, or mobility related.



Mobility

Strategies that aim to leverage the ever-expanding mobility landscape in the Oklahoma City area, including personal mobility devices, shared mobility, and enhanced transit. The goal of these strategies is to more closely align parking and mobility to improve access and movement options in the community.









Customer Service

Practices and policies that are intended to improve the experience of the end customer through improved education, marketing, enforcement and overall customer interaction. These strategies should reduce confusion, redundancy, and overall patron frustration.

The specific policies discussed on the following pages include:

- Shared Parking
- Parking Benefit District
- Right-Size Parking Policies & Codes
- Curbside Management Policies
- Surface Parking Exit Strategy
- Implementing and Managing Paid Parking
- Demand-Based Pricing
- Mobility Enhancements
- Improved Enforcement Options
- Data-Driven Practices
- Enhance Residential Parking Practices
- Technology Improvements
- Wayfinding Improvements
- Parking Investment Strategy
- Transportation Demand Management

Throughout this section, the recommendations will define which of the districts are most applicable for the implementation of various strategies and policies. The icons below will be used to define the application of strategies to specific districts.

	MIDTOWN		AUTOMOBILE ALLEY		DEEP DEUCE
	BRICKTOWN		CITY CENTER		ARTS DISTRICT



SHARED PARKING

Description: Leverage vast available parking supply throughout the study area and individual districts to develop a more structured public parking system. This would include either developing partnerships with the private sector or leasing existing surface parking to create more public parking supply.



INTENDED BENEFITS

- Create a more cohesive parking system
- Support future growth
- Create a better balance between on-street and off-street parking



POTENTIAL CHALLENGES

- Initial support from the private sector for participation
- Defining appropriate locations for consideration
- Investment in wayfinding, technology, and operations to support expanded management footprint

DISTRICTS TO CONSIDER



REQUIRED CHANGES

Code or ordinance changes to create incentives to participate in shared parking. Code language or agreements to allow enforcement of parking on private property.

SUPPORTING POLICIES

- Improved Enforcement Options
- Technology Improvements
- Wayfinding Improvements
- Implementing Paid Parking
- Demand-Based Parking Pricing
- Parking Benefit Districts
- Surface Parking Exit Strategy

KEY PARTNERSHIPS

- Private Sector
- Downtown BIDs

PERFORMANCE METRICS

- Improved Overall Utilization
- Reduction in new (and existing) surface parking

The primary recommendation for COTPA and the Downtown Oklahoma City parking system is to begin to leverage available parking capacity throughout the study area to create a more robust public parking system. Downtown Oklahoma City has almost 8,000 public parking spaces controlled by COTPA and/or the City. However, almost all of these are densely located throughout the City Center and very few are in the outlying districts. Leveraging private assets in the districts surrounding the core of the City could alleviate the need to build new parking and allow for more infill development within the Downtown study area.

Given the way many North American cities developed between the mid-20th Century and today, it is very uncommon for a municipality to have an off-street public parking supply as large as Oklahoma City's. Because of this industry-wide lack of public parking, many North American cities have begun to implement community-wide shared parking programs, led by the municipality in close coordination with the private sector. The intent is to try to create the appearance of public parking supply by leveraging available parking spaces in private facilities. The public entity usually provides support with management, operations, marketing, wayfinding, and enforcement. The private entity provides the capacity (at a minimum) but may also contribute to the management and operations. The benefit of expanding the shared parking system is that it will expand parking options and improve access by opening parking to the public that may have previously been restricted to specific users.



KEY RECOMMENDATIONS:

- Define COTPA's desired role in facilitating shared parking
- Identify initial areas for implementation

DEFINE COTPA'S DESIRED ROLE IN SHARED PARKING

The shared parking system should leverage the experience and resources of COTPA with the capacity and location of private parking assets. The intent of the shared parking program is to create a much more robust approach to parking management throughout the community. COTPA's role should include some combination of the following elements:

- Management and operations of the shared parking assets, including the provision of management resources, installation of technology, collection of revenue, and oversight of the parking facilities. Much of this would be outsourced to COTPA's off-street parking management partner.
- Enforcement of the shared parking assets, which would require the creation of management agreements that allow COTPA/City staff to enforce parking citations on private property.
- Implementation of wayfinding, branding, and marketing elements of the parking program consistent with today's practices and the recommendations outlined in later sections of this report.
- Provision of liability insurance for the shared parking facilities to help reduce burden of liability on property owners.
- Security resources to help monitor and manage access onto the private facilities, maintain access for tenants, and reduce the likelihood of criminal incidents on private property.

The ultimate role will be decided on a case by case basis between COTPA and the private property owner, but every effort should be made to create consistency and efficiency within the parking system.

In addition to defining the role of COTPA in the shared parking system, there are a few other elements that COTPA and the City will need to consider before implementation of shared parking. First, there is a need to identify changes in the development codes to incentivize use of the shared parking system (see the Right-Sized Parking Section of this toolbox). Second, COTPA, the City, and Downtown OKC will need to partner with business and property owners, community and economic development organizations, and community groups to build consensus for a shared parking system. This may be best accomplished after one or more successful pilot studies.

GENERAL RULES OF THUMB TO CONSIDER:

COTPA should use the following criteria when evaluating shared parking opportunities:

- The parking facility must meet all requirements as defined by city codes
- It is recommended that proposed shared facilities have at least 20-30 spaces in the facility available at all times for public parking use
- The parking facility must be within a quarter mile of primary Downtown destinations.
- The parking facility must be made available for paid parking
- The parking facility should be open to interface with COTPA's preferred parking system vendor to ensure simple and consistent alternative payment alternatives

IDENTIFY INITIAL AREAS FOR IMPLEMENTATION

Once the role and specifics of the shared parking system are settled through collaborative discussion with Downtown stakeholders, the first immediate step will be to identify areas for initial implementation and assessment. Based on the analysis as part of this effort, the immediate locations would include Midtown, Automobile Alley, and Bricktown. Ideal locations within these districts would be in areas with higher mixed use demands and properties which could serve to provide public parking and leased parking for business growth.

The first few instances of shared public parking should be considered a pilot test to help orient the community to the intended purpose of the shared parking program. Ideally, COTPA and its downtown partners can communicate success of this pilot study to incentivize the expansion of the program.

A typical shared parking opportunity would include:

- COTPA entering into a management agreement with the private property owner - the management agreement would define shared parking, restricted or protected parking, rates and management fees, and revenue sharing, as primary details
- COTPA would install branded parking signage consistent with public parking facilities today to help influence usage of those facilities
- COTPA would provide management oversight, enforcement, cleaning, safety services, as well as revenue collection and distribution
- COTPA would need to create a messaging campaign to define how to use shared parking, what to look for to identify shared parking, and how the program benefits the community at large

CASE STUDIES

Sacramento, CA

The City of Sacramento, CA operates a shared public parking system with a combination of public and private parking facilities. The City also manages the parking for state facilities within Sacramento and for a neighboring jurisdiction. The City has developed a common brand for the shared parking system, called SacPark, and has partnered with community and business organizations on marketing and communications such as the Sacramento Downtown Partnership. The shared parking program includes large garages and small surface lots all managed under a common system with hourly, daily, event, and permit parking available through the program. Sacramento passed legislation to allow the City to enforce parking at private facilities through an agreement with the facility owner. The increased enforcement has reduced parking violations and increased parking availability.

The City of Sacramento has integrated the on and off-street parking management program with common branding and communication materials. The City of Sacramento has leveraged technology investments to improve parking management for the shared parking program. It is unlikely that individual facility owners would invest in technology such as License Plate Readers (LPR) for enforcement. Now private property owners can contract with the City to provide enforcement. The shared parking system uses consistent technology for a consistent user experience.

Tempe, AZ

Over the past ten years, the City of Tempe and the Downtown Tempe Authority (DTA) have identified many underutilized properties and worked out arrangements to allow for additional users from neighboring properties to park. Specifically, they have converted six lots and garages (including more than 1,800 additional spaces) that were previously used exclusively as private parking. In all cases the properties had substantial vacancy and the owners struggled with controlling illegal parking. The additional spaces have allowed the City to advertise parking more aggressively and remove a lot of the confusion that previously existed with regard to vacant parking lots with inadequate or in some cases no signage.

Once properties were identified the City would approach the owner to simply learn more about the property, including initial questions related to current uses/needs, future plans, or whether or not encumbrances were present that would prevent any changes to the operation. Often, the owner didn't know that sharing the parking or converting to public/paid parking were available options. In some instances, the parking was converted to paid public parking while in other cases an allotment of parking was brokered to another user needing more parking than what they were afforded in their lease.

A major difficulty with installing paid parking in private lots in Tempe was the difficulty of enforcing the drivers' responsibility to pay at private meters. If private operators cannot issue enforceable tickets for violations, the only legal ways to ensure compliance is to boot or tow the violators, which is expensive, inconvenient, and unpopular with both drivers and merchants. To solve this problem the city enforcement arm entered into agreements with private property owners and private operators to enforce parking. This allowed the City of Tempe and DTA to provide enforcement for private lots, ensure compliance, and promote a more efficient parking system throughout the community.

RIGHT-SIZE PARKING POLICIES AND CODES

Description: Defines policies and practices that support the vision of Downtown Oklahoma City through parking requirements and provisions by: modifying parking codes, utilizing parking maximums, leveraging fee-in-lieu implementation, better shared parking practices, and evaluating variances provided for redevelopment.



INTENDED BENEFITS

- Creates a balanced parking system that can accommodate the needs and vision of the City
- Reduced subsidization of auto trips
- Increased reliance on centralized parking system
- Reduced underutilized restricted parking



POTENTIAL CHALLENGES

- May be a need to address concerns and manage neighborhood impacts
- Coordination of public supply - either existing or future - to support area businesses
- Establishment of fee in lieu and application of funds

DISTRICTS TO CONSIDER



REQUIRED CHANGES

- Adjustments would need to be made to the citywide development code, including: parking requirements, shared parking policies, and implementing fee-in lieu practices

SUPPORTING POLICIES

- Shared Parking
- Data-Driven Policies to Support Balanced Utilization
- Parking Benefit Districts
- Mobility Enhancements
- Transportation Demand Management
- Surface Parking Exit Strategy

KEY PARTNERSHIPS

- City planning department
- Area development community

PERFORMANCE METRICS

- Parking occupancy
- Neighborhood spillover impacts
- Return on investment from development

In the past decade, a movement has grown in the parking and planning communities to “right-size” codes, ordinances, and policies related to the provision of parking. Parking codes and ordinances meant to help protect communities from an influx of cars parking in wayward areas have actually worked against the design of functional, walkable development and streets. While Oklahoma City has taken steps to remove minimum parking requirements and move towards a denser walkable urban environment, the development community has continued to build at a suburban rate, creating an extensive private off-street parking system that is largely underutilized.

WHAT DOES RIGHT-SIZED PARKING MEAN?

Developing context-appropriate codes and regulations that are designed to capture the character and intent of an area, rather than applying blanket policies to an entire area out of context. Right-sized policies can:

- Support economic development by reducing barriers to building mixed-use developments in urban centers;
- Reduce housing costs as well as household monthly expenditures allowing a larger demographic to participate in the urban, infill housing market;
- Encourage use of transit, rideshare, bike and walk;
- Reduce vehicle miles traveled (VMT) and greenhouse gases (GHG).



KEY RECOMMENDATIONS:

There are several steps that need to be considered in the creation of right-sized parking codes, ordinances, and policies. The primary components this study focuses on are:

- Support economic development by reducing barriers to building mixed-use developments in urban centers;
- Reduce housing costs as well as household monthly expenditures allowing a larger demographic to participate in the urban, infill housing market;
- Encourage use of transit, rideshare, bike and walk;
- Reduce vehicle miles traveled (VMT) and greenhouse gases (GHG).

These elements will likely have the highest impact on reducing the over-supply of parking in the community and promoting smarter design elements.

CREATING INCENTIVES TO SUPPORT CENTRALIZED SHARED PARKING

The City of Oklahoma City has already taken the measure to remove minimum parking requirements, an action that has been taken in cities throughout the U.S. over the past few decades. The reasoning for this removal is to incentivize new development to rely on available parking rather than building on-site parking. However, many new developments still build (more precisely overbuild) parking on-site to accommodate financing and leasing demands. This results in a supply of parking in urban settings that resemble suburban uses. There are a few considerations for inclusion in the Oklahoma City development code that could negate this trend and begin to incentivize a more useful and efficient parking system, including:

- Implementation of development incentives to use shared parking – for those new developments that are positioned to use shared parking (e.g. location and demands match available supply), the inclusion of incentive-based zoning could push the developer to rely on shared parking. The most common type of incentive is a density bonus or variance that allows for exceptions to other zoning requirements that might encumber the full-realization of desired development.
- Expansion of allowable walking tolerances for shared parking from traditional one to two block distances (400 to 800 feet) to a full quarter mile (1,200 feet).
- Introduction of parking maximums with allowance for variances on the maximum if the overage is made available for public parking. This allows developers to meet the requests of financing agents and support the desired mixture and intensity of uses, while also allowing for flexible use of capacity as the development is opened. The overage made available for public parking would ideally be part of the COTPA-managed shared parking supply.

CONSIDER A FEE IN-LIEU OF PARKING

One option for COTPA and the City to consider funding shared parking is to develop a fee in-lieu program to allow developers to pay a fee to the City for access to off-street parking. The fee would be placed in a fund to pay for existing or new parking stalls and access rights for the payee.

- Implement a fee in-lieu of proving off-street parking where developers can pay a fee for access to off-street parking. The fee in-lieu would need to be set low enough to incentivize use, since there is no current requirement for off-street parking. This means the fee would likely be lower than the cost to build a surface parking space.
- Define as a use for the in-lieu fee fund parking improvements, transportation/transit improvements, and mobility enhancements.

IMPLEMENTING A DOWNTOWN PARKING MANAGEMENT DISTRICT

Another option for COTPA and the City is to create a more efficient and usable parking network that relies on publicly run shared parking is the creation of a Downtown Parking Management District that consolidates parking supply, supports existing and new business, and provides a more seamless and understandable parking experience for visitors, employees, and residents. A parking management district could have the following components:

- Consolidation of primary parking areas into one large shared parking supply – while there would be some exceptions (e.g. residential and smaller office parking supplies), the majority of off-street parking would be converted into public parking with spaces available for use by any user at any time.
- In a parking management district, each property would be levied a fee (based on the value of the property) which would be used to implement, manage, and maintain shared parking in the area. The fees would be collected annually and would support the operation and management of the district.
- Introduction of a governing board that weighed in on the management and direction of parking in the district. The governing board would be elected by members of the district.
- Consider consolidation of smaller surface lots into larger more useful parking lots to serve shared needs within commercial districts.
- Establishment of rules that require property owners to make parking available for public use (or management by a public entity, COTPA). Within the rules, establish metrics for maintaining parking space capacity, access to parking, and aesthetic appearance of parking.

MODERN MITIGATION

Recent efforts in the planning and urban design communities have created an approach called Modern Mitigation that focuses less on vehicular capacity improvements as a result of new land use investments. Instead, the concept of modern mitigation focuses on transportation demand management (TDM) as the first choice, making reduction of traffic and parking demands a priority. Conventional approaches to development oftentimes require more investment than is capable of the development, creates more traffic and congestion on adjacent roadways, and reduces the likelihood that non-automotive modes will find increased usage. The primary principles of Modern Mitigation focus on the following:

- Reducing reliance on single occupant vehicle trips
- Considering parking/traffic and congestion impacts to the entire transportation system
- Applying practices that are context-sensitive
- Maintaining a predictable process
- Designing solutions for all stakeholders

The process is intended to help developers understand mitigation options, rather than simply pointing to code required parking and traffic improvements. Many communities have created TDM calculators as part of the development review process, helping developers realize multiple concepts to support demand mitigation. Some examples of measures that are used in place of parking and transportation capacity include:

- Active transportation improvements – physical transportation network improvements that encourage people to walk and/or bicycle to community destinations, including sidewalks, bike lanes, and better roadway crossings. These types of improvements serve not only the development but the community surrounding it. These are typically candidates for in-lieu fee funds.
- Bicycle facilities – creating bike parking/storage above code requirements, bike showers/lockers, bike share, and other cycling amenities for the development and surrounding community.
- Carpooling and ridesharing – providing development-based ridesharing subsidies, shuttling, guaranteed ride home, and carpooling programs to support reduced vehicle ownership.
- Carsharing – providing shared cars on the site of the development, incentivizing a reduction in car ownership.
- Unbundling parking – removing the inclusion of free parking in housing or office space and having tenants pay the true cost for that parking can help to reduce the reliance on the personal automobile and might incentivize better commute decision-making.
- Centralized shared parking – in the place of on-site parking, having development pay into a fee in-lieu program can help to promote more centralized parking and reduce the number of spaces contained in a community.
- Promoting transit – developers can provide subsidized transit, provide shuttles/connectors to destination areas, or contribute to the improvement of the transit system (vehicles, routes, stops, etc.).
- Affordable housing – the inclusion of affordable housing in development could trigger mitigation points that lessen the transportation and/or parking burden.
- Education, Marketing, and Information – developers can contribute funds to the City’s non-automotive education programs, helping to educate users of the development and the surrounding community of the benefits of using non-vehicular means.

As the City considers the modernized recommendations associated with parking requirements and the in-lieu fee program, the concepts of Modern Mitigation should be adopted to further reduce the reliance on the personal automobile in Downtown Oklahoma City and its districts.



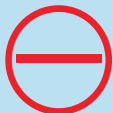
IMPLEMENTING AND MANAGING PAID PARKING

Description: The implementation of paid parking where parking is currently free and/or unregulated is intended to promote better balance between on-street and off-street assets. The implementation should be community-driven, including support from area stakeholders and businesses. Paid parking should be structured in a way to promote efficient utilization of assets at differing times of day.



INTENDED BENEFITS

- Improved turnover and access to parking
- Improved balance between on-street and off-street parking assets
- Better balance between vehicular and non-vehicular mode choice



POTENTIAL CHALLENGES

- Pushback from businesses and neighborhoods can limit effectiveness – *outreach is key*
- Spillover parking from paid parking changes into unpaid or unregulated parking areas

DISTRICTS TO CONSIDER



REQUIRED CHANGES

Introduction of demand-based pricing and expanded paid parking hours to meet the dynamic needs of districts. Creation of paid parking in areas that have been free to date.

SUPPORTING POLICIES

- Shared Parking
- Improved Enforcement Options
- Technology Improvements
- Data-Driven Policies to Support Balanced Utilization
- Demand-Based Parking Pricing
- Progressive Parking Pricing
- Enhance Residential Parking Practices
- Parking Benefit Districts
- Transportation Demand Management

KEY PARTNERSHIPS

- Downtown Business Districts
- Businesses
- City Leadership

PERFORMANCE METRICS

- Parking Occupancy
- Parking Turnover
- Business Owner Satisfaction
- Patron Satisfaction

When parking demands in an area become so high that parking facilities (on- and off-street) create capacity constraints, paid parking becomes a highly effective way to influence behavior, redistribute parking demands, and promote economic activity through turnover of parking spaces. Implementation of paid parking should be driven by the parking demands experienced in the study area and the need to create access to businesses.



KEY RECOMMENDATIONS:

- Implement paid parking in Automobile Alley and Midtown
- Adjust paid parking policies in Bricktown and City Center

IMPLEMENT PAID PARKING

Based on feedback from stakeholders in both the Automobile Alley and Midtown districts, the primary recommendation is to implement paid parking in these areas to support turnover of on-street spaces, balanced demand between on- and off-street spaces, and better access to businesses. The implementation of paid parking should follow many of the strategies described in the Curb Management and Data-Driven Practices sections, including Asset Light and Demand-Based Pricing principles. When provided in conjunction with the introduction of shared off-street parking managed by COTPA, the performance of parking should improve in these districts.

ADJUST PAID PARKING POLICIES

The paid on-street parking systems in Bricktown and the City Center have been in place for a while and users in each of the districts are well accustomed to the practice of managed parking. It may be time to consider some more advanced and context-sensitive approaches to the paid parking program, including the following recommendations:



BRICKTOWN

Adjust the hours of enforcement and paid parking to include evenings and weekend periods to better manage demands during their highest peaks. This would include extending meter hours into the evening, perhaps even as late as 10pm, while also collecting and managing on Saturdays. Event parking prices should also be set higher to encourage patrons to park outside of the district and use streetcar to access event venues.



CITY CENTER

Adjust the price of parking to be more demand-driven, with higher prices in the core of the City Center and lower in the fringe areas. COTPA and the City should also consider raising on-street parking rates to incentivize use of the off-street public parking facilities. As a rule, off-street parking rates should generally be set lower than adjacent on-street rates.

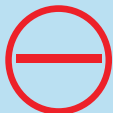
PARKING BENEFIT DISTRICTS

Description: Parking benefit districts are a collaborative approach to district or neighborhood parking management that uses paid parking as a proxy to both improve parking efficiency and reinvest into the neighborhood. The policy is predicated on widespread adoption of paid parking throughout a district and the return of revenues above and beyond operational costs back to the district for mobility, parking, or aesthetic improvements.



INTENDED BENEFITS

- Promote shared use of parking between businesses patrons, residents, and area employees
- Balanced utilization of all parking assets through appropriate pricing mechanisms
- Partial reinvestment through parking revenue collections



POTENTIAL CHALLENGES

- Generation of enough support from residents and businesses to implement wide-scale paid parking adoption
- Generation of enough revenue to support sharing of parking revenues
- Create unrealistic expectations of amount of revenue available for districts

DISTRICTS TO CONSIDER



REQUIRED CHANGES

Revising code and ordinances to allow for partial reinvestment of on-street parking revenues. Definition of boards to assist with governance of the district areas.

SUPPORTING POLICIES

- Shared Parking
- Improved Enforcement Options
- Technology Improvements
- Wayfinding Improvements
- Implementing Paid Parking
- Enhance Residential Parking Practices
- Mobility Enhancements
- Transportation Demand Management

KEY PARTNERSHIPS

- Downtown Business Districts
- Businesses
- Neighborhood Associations

PERFORMANCE METRICS

- Balanced on- and off-street parking
- Improved turnover of parking near businesses
- Business and neighborhood satisfaction

One of the newer tools identified in parking management toolboxes is the concept of a parking benefit district. The concept is that in an area with diverse needs – commercial, office, evening, residential – the advanced management of parking can lead to a collaborative process with successful outcomes for both the managing agency and the affected constituents. The premise is focused on the application of wide-scale paid parking that supports better access, promotes balanced use of on-street, off-street, and fringe parking assets, and creates a more convenient and understandable parking environment. The benefit component of the district allows for reinvestment of parking revenues into the district to support parking, maintenance, mobility, and aesthetic improvements. Stakeholders in both Automobile Alley and Midtown expressed an interest in evaluating benefit districts in their portions of the Downtown Oklahoma City community.



KEY RECOMMENDATIONS:

- Evaluate the structure and use of revenues for wide-scale mobility enhancements
- Consider the application of parking benefit districts

Case Study - Columbus, OH

The City of Columbus, Ohio recently implemented a parking benefit district in its Short North neighborhood. The intention of the benefit district was to manage spillover impacts from area businesses, provide space for employees to park when demands were low in neighborhoods, and create a revenue stream that could support enhanced transportation options for residents, businesses, and employees in the area. The ultimate goal is to balance access, parking demands, and the ability to support both community growth and preservation of neighborhood character.

DEFINE THE STRUCTURE AND USE OF REVENUES

One of the critical elements associated with benefit districts is defining how revenues are collected and used within the district. For most locations, the collection of revenue is generated from the introduction of parking meters in commercial areas to support access to business and turnover of on-street spaces. Other benefit districts extend into the adjacent side streets and neighborhoods, using a combination of metered parking and/or mobile payment technologies to collect revenue. In the event that paid parking extends into neighborhoods, the residents of the neighborhoods would be exempt from hourly or daily payment with the introduction of residential permit parking (preferably with virtual permitting).

A portion of the revenue collected from these sources would then serve to form the basis of the reinvestment. The managing entity (in this case COTPA and the City) would need to cover operating costs before assigning any remaining net revenue for reinvestment. The structure and reinvestment of the remaining net revenue is based on how a community desires to utilize meter revenues. For example, the City of Columbus reinvests the remainder of the net revenue after collecting operating costs and a nominal maintenance reserve. Other communities, such as Houston and Austin, reinvest a portion of the net revenue, with the remainder contributing to the overall parking fund or general fund. Houston shares 60% of the net revenue after operating expenses. Austin shares 50% of the net revenue. Given that the current ordinance requires parking revenue to contribute to the general fund, the expectation is that the reinvestment model would resemble more of the Houston or Austin structure than the Columbus structure.

Once the reinvestment structure is determined, COTPA and the City will need to define the actual use for benefit district revenues. The three primary uses in existing benefit districts today include:

- Parking Improvements – this includes investment in new parking, shared parking, parking technologies, wayfinding/marketing enhancements, and overall parking management activities.
- Mobility Enhancements – this includes investment in enhanced walking, biking, and micro-mobility enhancements, transit system enhancements, and micro-transit opportunities. For example, Columbus is using benefit district revenues to support employee-based shuttling to reduce demands for parking, provide more equitable options for employees, and reduce the street network burden during peak periods.
- Aesthetic and Pedestrian Enhancements – this includes investment in streetscape, pedestrian safety, and connectivity improvements. An example would be improvements to Broadway Avenue to support lessened traffic, improved pedestrian and cycling improvements, and enhanced user experience.

The governing body associated with a benefit district, in conjunction with the managing agency, usually define the use of funds collaboratively. The benefit district would require a collaborative effort between COTPA, the City, and the Downtown OKC district boards. Ideally there would be an elected board that works with COTPA and the City to implement the program, message the importance of paid parking, and decide how distributed revenues would be implemented. If COTPA and the City decide to implement Parking Management Districts (as defined in the Right-Sized section), the board governing that district should govern the reinvestment of net parking revenues as well.

COTPA, the City, and Downtown OKC may consider defining and implementing parking benefit districts in association with the expansion of advanced parking management strategies in the Downtown Oklahoma City area. The primary question associated with the introduction of the benefit district is whether it should exist granularly at the district level or more holistically at the downtown level. If the primary focus of the benefit reinvestment is to support mobility enhancements that make moving between districts easier, then the application of district-based benefit reinvestment could create some incompatibility between district areas. Therefore, the recommendation of this study is to evaluate the implementation of paid parking throughout the study area and conduct further evaluations at a later date. This additional evaluation will allow for a more accurate assessment of whether the area can generate adequate funds and support cohesive investment of the revenue share.



IMPROVED ENFORCEMENT OPTIONS

Description: Consistent and effective enforcement can be a pivotal catalyst for improving overall parking management and system performance. Improved enforcement does not necessarily mean writing more tickets, but rather creating a more concise expectation for parking regulations, focused on improving overall compliance with posted standards.



INTENDED BENEFITS

- Improved parking turnover and access to parking in high demand areas
- Better balance between on-street and off-street utilization
- Improved compliance with regulations
- Improved streetcar circulation



POTENTIAL CHALLENGES

- Emphases on enforcement could be perceived as heavy-handed approach to parking management
- Citation issuance needs to be balanced with education to improve behaviors and system performance

DISTRICTS TO CONSIDER



REQUIRED CHANGES

- Modernizing enforcement structure to be consolidated with parking operations found within the City's Transportation and Parking Department's on-street and COTPA's off-street parking management

SUPPORTING POLICIES

- Curbside Management Policies
- Data-Driven Policies to Support Balanced Utilization
- Implementing Paid Parking
- Enhance Residential Parking Practices

KEY PARTNERSHIPS

- City police
- Downtown business districts

PERFORMANCE METRICS

- Improved parking turnover
- Improved balance between on-street and off-street system
- Revenue balance with citations and payments
- Decline in streetcar blockages

Parking management strategies are only as effective as the enforcement practices used to monitor and uphold the policies and regulations. If the policies and regulations are not consistently enforced, users quickly learn how to abuse the system, preventing the parking system from operating efficiently and causing user frustration because parking spaces are not being managed appropriately. Parking enforcement should be conducted regularly and consistently.

Active enforcement encourages compliance with the parking regulations through education and citations, thus maximizing the use of the existing parking resources. Consistent enforcement ensures that users comply with the parking regulations, thus allowing the system to function more efficiently by promoting the turnover of parking spaces to increase availability and provide greater access to the surrounding businesses. When parking spaces turnover, those spaces are made available to more people (as opposed to being occupied for long periods of time by a single user). Increased turnover of parking spaces means that access to businesses improves because more people are able to use the parking spaces to visit the businesses.

The preferred approach to parking enforcement focuses on customer service and promoting the proper use of parking facilities. As such, the enforcement staff should be viewed as parking ambassadors, rather than regulatory agents, therefore consistent with the recommendation to modernize parking enforcement as part of parking operations. Their role should be to create a better customer experience by being highly visible and approachable to customers who have questions, not only regarding parking but about the general area. These staff members are likely the first (and sometimes only) interaction patrons have with the parking program.



KEY RECOMMENDATIONS:

- Consider the optimal location for enforcement within the parking program
- Consider graduated fine structures



CONSIDER THE OPTIMAL LOCATION FOR ENFORCEMENT WITHIN THE PARKING PROGRAM

The most successful parking programs today include all functions of parking management under one organizational structure. The City should consider moving enforcement from the Police to COTPA to formalize the comprehensive approach to parking management and allow for a more seamless operation of all facets of the parking program. In order to accomplish this migration from Police to COTPA, the following items should be considered:

- Draft a legal opinion from City Attorney on the appropriate interpretation of city code and the location of parking enforcement
- Conduct a financial analysis to determine the impacts to both the Police Department and COTPA of making the transition and consideration of initial net neutral approaches to the transition
- Define the feasibility of enforcing parking on private parking for shared parking purposes

If it is decided that the migration from Police to COTPA is optimal, then the parking enforcement function of the program should be adjusted to focus on promoting customer service, enhancing the parking experience, and promoting turnover in commercial areas. This approach to parking management has been named the Parking Ambassador model, where enforcement officers focus less on regulation and more on compliance and helping to educate and inform consumers.

Ideally, as paid parking is implemented in the districts throughout Downtown Oklahoma City, the presence of parking ambassadors would help to improve parking turnover. COTPA and the City should plan to have at least one on-foot parking ambassador in each district as paid parking is implemented. This will allow for optimal coverage, consistent enforcement, and support for each of the districts as they continue to evolve. The on-foot ambassador would also serve to help parkers figure out where to park, how to pay, and how to comply with the regulations of the district and the parking program and monitor and resolve streetcar blockages.

COTPA and the City should also leverage the recent investment in License Plate Recognition (LPR) technology to support a more efficient approach to enforcement that allows for more mobility and coverage in commercial and residential areas. The LPR system will interact with the current Pay-By-License Plate system of on-street parking very effectively, allowing for a more seamless approach to monitoring appropriate usage of on-street spaces. When combined with on-foot ambassadors strategically covering the districts, the enforcement function of the parking program should be able to improve parking turnover and business access.



CONSIDER GRADUATED FINE STRUCTURES

COTPA and the City should consider graduated fine structures to help reinforce parking regulations while providing some allowance for first-time offenders. Under this strategy the parking fine for a first-time offender is relatively low or free. The low cost of the fine serves as a way to educate the offender rather than to punish them.

However, the graduated ticket structure penalizes those who repeatedly park illegally with heavier fines. As a result, people are less likely to repeat the offense and obey the parking regulations. The following is the suggested citation ticket structure:

1ST OFFENSE		\$0 Fine with a warning educating the user
2ND OFFENSE		\$15 Fine with an educational component
3RD OFFENSE		\$30 Fine
4TH OFFENSE		\$60 Fine

This type of structure has been implemented in communities throughout the US and allows for a more educational approach to parking enforcement, while still allowing for a more severe penalization of scofflaws and habitual offenders.

CASE STUDIES

Tempe, AZ

The City of Tempe and the Downtown Tempe Authority (DTA) recently took the enforcement arm of parking management under the control of DTA from the City's Police Department. This move was consistent with a growing trend throughout the country to remove parking enforcement from the Police function to support the overall goals of the parking program. DTA repurposed the officers as parking ambassadors and renamed the program Parking Compliance. The City and DTA found that in Tempe, the Police Departments typically did not like to issue tickets and the staff assigned to do so typically were pulled for other projects such as traffic control and accident report writing.

As Tempe and DTA migrated to the parking ambassador model, their focus was on customer service, education, and promoting compliance with regulations rather than finding citations. DTA found that this new approach to enforcement created a reduction in citation revenue, but a steady increase in parking meter revenue (which offset the citation losses). Additional revenue sources included:

- Removal of the adjudication function from the courts, with DTA administering in house thus capturing additional processing fees
- Staffing for DTA was considerably less than the staffing costs for the Police Department
- DTA entered into agreements to manage and enforce private parking which allowed for the collection of management fees and to expense costs to the private property owner to enforce the parking operation

CURBSIDE MANAGEMENT POLICIES

Description: A curb lane management program provides structure for managing the various competing curb lane uses. A comprehensive curb lane management plan and program allows for making consistent decisions regarding curb lane uses so that there is structure and consistent reasoning behind the decision-making process.



INTENDED BENEFITS

- Better structure of curbside assets for parking, loading, and interaction with businesses
- Prioritization of uses/ users by area to support intended vision
- Better planning tool for COTPA and the City to define how and where curbside elements are changed



POTENTIAL CHALLENGES

- Multi-faceted areas will have very dynamic needs
- Rapidly changing areas will require flexible policy to grow with the changing community
- Some users will potentially be de-prioritized

DISTRICTS TO CONSIDER



REQUIRED CHANGES

Creation of policies and practices that take a data-driven approach to curb allocation and management, prioritizing use and user by adjacent need. Consideration of policy and technology improvements to manage varied demand and support evolution of curb needs.

SUPPORTING POLICIES

- Shared Parking
- Improved Enforcement Options
- Data-Driven Policies to Support Balanced Utilization
- Implementing Paid Parking
- Demand-Based Parking Pricing
- Enhance Residential Parking Practices
- Parking Benefit Districts

KEY PARTNERSHIPS

- Business districts
- Commercial loading operators
- TNC and Passenger transport services

PERFORMANCE METRICS

- Parking occupancy
- Business owner satisfaction
- Reduced congestion

With the rise of new mobility and parking trends, curbside space is arguably the most important and precious resource in our cities today. Demand for curbside space is increasing as cities work to balance transit demand, on-street parking, TNC passenger loading/unloading, truck loading/unloading, personal deliveries (e.g. package delivery such as UPS, FedEx, and Amazon, and food delivery services such as GrubHub), dockless on-demand mobility devices such as bikes and scooters, emergency services, pedestrian streetscape amenities, and other users. All of these users want free and unimpeded access to curbside space, and like other public resources, cities must operate and manage the curbside effectively to provide access for a variety of users, while optimizing overall public benefit.



KEY RECOMMENDATIONS:

- COTPA and the City should develop and execute a comprehensive curbside lane management program. That includes adopted changes to parking, loading, transit, and mobility usage in the Downtown Oklahoma City area.
- Comprehensive curbside lane management should be coupled with the adoption of mobile payment, virtual permitting, curbside space monitoring technology, and dynamic on-street parking pricing.

The core tenets of an effective flexible and dynamic modern-day curbside lane management program are:

- The program prioritizes and manages often competing curbside uses by location, day of week, type of user, and time of day compared to the relative value each of them brings
- The program articulates objectives for different curbside uses and different parts of the city (i.e. mobility/SOV reduction, parking occupancy goals, revenue, maximization of passenger curbside access, etc.)
- The program includes a comprehensive inventory of curbside uses across the city
- The program outlines clearly when, where, and how to implement changes to curbside use designations
- The program includes a process for monitoring the use of the curbside with technology (LPR, space sensors, Bluetooth, parking transactions, etc.) for enforcement, effective curbside pricing and payment, curbside demand management, and data analytics



IMPLEMENTATION STRATEGIES

The following sections describe some of the improvements COTPA and the City should strive to develop in relation to its curbside management program.

Understand the Curb Lane Inventory

One of the first critical steps to efficient curbside management is gaining the knowledge of what is actually occurring at the curbside. The inventory data developed as part of this study is an excellent first step into cataloguing the uses along the curbside. It identifies block by block capacity of parking, loading, and restricted spaces. COTPA and the City should continue to move forward with this dataset and maintain its accuracy as changes are adapted along the curbside. The provided dataset was built in the GIS mapping platform, but there are a number of curbside-driven technologies on the market today that use simple smartphone based photo and GPS information to maintain accurate and timely inventories of the curbside.

Develop Curb Lane Priorities

COTPA and the City will need to establish prioritization for curbside lanes based on surrounding context and user need. There will very likely be a need for differing prioritizations in differing areas. For example, priorities in Automobile Alley will differ greatly than priorities in Deep Deuce. On Broadway Avenue, priority will likely skew towards passenger loading, pedestrians, and parking, while Deep Deuce will be heavily favored towards residents and their parking and loading needs.

The Seattle DOT uses three distinct priority sets to define how to allocate curbside space based on setting. Those priorities are used to clearly communicate how decisions are made related to curbside space use.

COTPA and the City need to develop a similar set of priorities for the curbside space in Downtown Oklahoma City and its unique districts.

Flex zone functions are prioritized based on surrounding land use

	Residential	Commercial & Mixed Use	Industrial
1	Support for Modal Plan Priorities	Support for Modal Plan Priorities	Support for Modal Plan Priorities
2	Access for People	Access for Commerce	Access for Commerce
3	Access for Commerce	Access for People	Access for People
4	Greening	Activation	Storage
5	Storage	Greening	Activation
6	Activation	Storage	Greening

Identify Optimal Usage of Curbside Space

Once COTPA and the City have established priorities, it should use those to guide decisions about how to implement changes to the curbside space. The definition and allocation of curbside space should be data-driven (using many of the tools outlined in the Data-Driven Policies section). Using realistic data about the context of the curbside space being modified, COTPA and the City will likely follow the following process when identifying changes:

- 1 Refer to the curbside lane inventory to determine what’s in place today
- 2 Identify how the adjacent land uses need to use the curbside and how they might react to changes
- 3 Identify alternative curbside lane configurations or proposed changes, using prioritization, stakeholder input, and data analytics to define preferred solutions
- 4 Implement preferred treatments
- 5 Monitor data and determine refinements to achieve goals

As COTPA and the City follow this process, the third step will likely be where most of the time is spent defining approaches for changing curb space. There are typically three general approaches to changing curb space.

<p>CLUSTERING USES</p>	<p>This approach seeks to relocate uses so that there is more clarity and efficiency in use. For example, on blocks where parking and loading spaces are intermingled, defining who can use which space and promoting efficient use of space is difficult without significant signage. And in the case of commercial loading, fragmented spaces may limit access to only vehicles that can fit in a singular parking space. Converting uses aims to structure the uses more predictably. The City of Charlotte took this approach with their curb lane program and were able to increase parking capacity by locating it center block and placing accessory uses at the ends of street blocks. The result was an easier parking experience as well as a more predictable and accessible environment for loading vehicles.</p>
<p>MODIFYING USES</p>	<p>This approach simply converts the existing use to something that is more appropriate based on the surrounding context and prioritization. For example, in restaurant and entertainment areas, on-street parking might be removed for passenger loading to support rideshare trips in the area. In areas where on-street parking demands are lowered, this is a good option to promote alternative mode usage to access destination areas.</p>
<p>DEFINING FLEXIBLE USES</p>	<p>This approach combines the clustering and modifying approaches and creates distinct uses by differing times of day or during different demand periods. Taking this approach requires a more comprehensive approach to communication (and likely technology) but will likely serve the most users throughout the day. A simplistic example is to have a commercial loading space transition to a passenger loading space based on the time of day. This requires the least amount of impact to parkers and takes advantage of space availability for curb uses when they are needed the most. In extreme situations, entire blocks convert based on the time of day. Washington DC has piloted the conversion of daytime parking to nighttime passenger loading to accommodate higher volumes of rideshare services at night.</p>

As COTPA and the City assess the curbside environment within the community, these approaches should be applied to spaces, blocks, and areas to support more efficient use of the curb throughout varied demand periods.

Monitoring Curb Space Use

As curb changes are implemented in the Downtown Oklahoma City community, it will be imperative that COTPA and the City monitor how changes along the curb impact not only the curb but also the adjacent street space, pedestrian access, and business success. The analysis of curb use will be driven by much of the data defined in the Data Driven Policies section. COTPA and the City should define the goal of the analysis and use the necessary performance metrics to support the evaluation.

Recent research has tried to indicate that there can be distinct equations for evaluating curb performance. While the intent of that research is positive, it's solely focused on activity along the curb. COTPA and the City should use activity (parking transactions, transit loading, passenger loading, etc.) as a metric. But of equal importance are concepts like business support (from parked cars), availability of space from turnover, balanced mode share and community access, and street performance.

Curb Lane Management Technology

Current technologies are quickly being adapted to help support the rapid move to flexible and dynamic curb space. Unfortunately, no one technology has entered the market that is ready to support completely dynamic curbs. Parking meters can be adapted to support changing rates or access configurations. But signage and communication are not readily available to communicate flexible space changes. COTPA and the City should work with their vendors to understand what technology is available to support more efficient curb management. As mobile payment platforms are introduced, COTPA and the City should require that the selected vendor has the capability to provide real-time information about curb use that is operated in a dynamic environment.

Specific Curb Lane Considerations

The previous sections all described curb lane management program strategies. The following sub sections all define some considerations for the Downtown Oklahoma City area and its districts. The Institute of Transportation Engineers (ITE) recently released a technical resource, the Curbside Management Practitioners Guide. These considerations are defined based on a literature review of that document.

Living Previews

The concept of a Living Preview (essentially a pilot test) is to temporarily install some or all of a curb treatment, even if it is only done with moveable barriers or temporary signage. The living preview allows the surrounding businesses, residents, and patrons to interact with a change before it is permanent. The test also allows for real time collection of data associated with the treatment to determine refinements needed before permanent adaptation.

Adapting Urban Loading Practices

In high density congested urban cores, the introduction of freight or commercial loading movements can often lead to intense competition for curb space and rapidly increasing congestion. A few of the concepts outlined in the practitioner’s guide may be applicable in Downtown Oklahoma City, including:

MONETIZED FREIGHT ZONES	Paid commercial loading areas can help to reduce the duration loading vehicles stay in a space and increase the availability of spaces. When coupled with mobile pay and real-time availability applications, it can increase the predictability of the commercial loading exercise.
PEAK AND NON-PEAK DELIVERY PRICING	Encouraging off-peak delivery by providing free or cheap access during non-peak periods. Conversely, peak period deliveries would be priced higher to discourage use during those periods. In cities that have implemented these programs, delivery drivers indicated that non-peak delivery movements were easier due to less congestion, faster travel, more abundant parking and less time for delivery activities.
DELIVERY VEHICLE STAGING ZONES	Designating staging zones for delivery trucks to queue up before accessing available loading spaces can reduce congestion and occurrences of double parking. By combining this approach with commercial vehicle reservation systems and/or real-time availability, COTPA and the City could manage the flow of delivery vehicles.
URBAN CONSOLIDATION CENTERS FOR LAST MILE DELIVERY	These centers create a centralized hub where packages are delivered before being consolidated into smaller delivery vehicles that reduce redundancy of vehicles and support more efficient goods movement in urban environments with less roadway capacity.
MOVING LOADING TO SIDE STREETS	Loading movements are much shorter duration than other curb movements and are often lower in the priority chain than parking or passenger movement. Because of this, some cities are moving loading spaces off of primary corridors and onto adjacent streets where demands might not be as high.

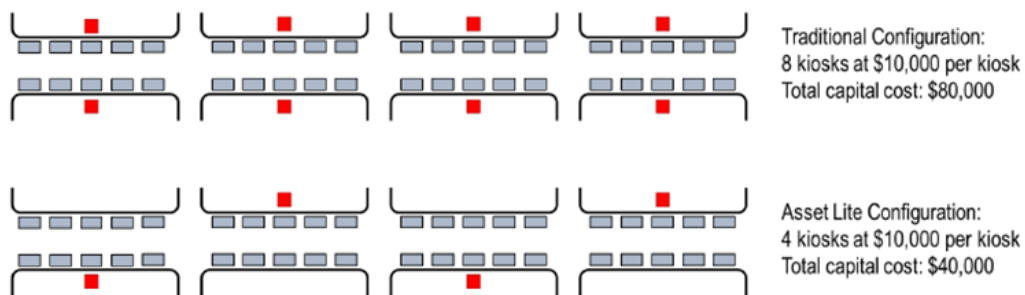
Asset Light Concepts

Many communities are now reversing their plans of implementing hundreds or thousands of parking meters, and instead using a mixture of mobile payment platforms with a limited number of meters accepting card, cash and coin. This concept, known as “asset light,” is reducing capital expenditures and ongoing maintenance costs, while still providing the same level of customer service as a meter heavy system. COTPA and the City have made investments in recent years that are putting the parking system on the path to asset light and should continue that process.

The asset light approach in Downtown Oklahoma City would likely include the following components:

1. Introduction of a pay-by-phone platform, including smartphone and web-based payment ability. This payment platform should be available throughout the community, including both on-street and off-street parking assets. The consistency amongst the program will help with quicker integration into the program.
2. For new on-street paid parking areas, COTPA and the City should redistribute existing multi-space paystations to be placed every two to three blocks into the new paid parking areas. This redistribution would leave existing areas with paystations every two to three blocks as well. The paystations would be placed on alternating sides of the street as appropriate. In locations where all pedestrian traffic will likely funnel to the same location (like a streetcar station), COTPA and the City could even concentrate payment kiosks close to the transit station, allowing patrons to move toward their destination.
3. Payment kiosks should remain pay-by-license plate, removing the need for a walk-back (pay-and-display) or space numbering for all spaces. In combination with the pay-by-phone system and LPR based enforcement, this system should provide COTPA and the City with the most efficient approach to payment and management.

This asset light approach will provide costs savings initially and into the future, considering the lessened need for expensive metering technology and ongoing collections and maintenance costs. The graphics below depict the configuration and the potential cost savings.



Creating Context-Sensitive Curb Policies

As curb policies are created, implemented, and adapted for various parts of the Downtown Oklahoma City community, some unique elements could be considered to enhance the context of the vibrant downtown districts, including:

- Allowing parklets and street cafes to help support activation and/or enhancement of the pedestrian environment. These pedestrian-driven spaces in the curb environment help to create more activity area, enrich the curbside experience for patrons, and create more unique landscaping or aesthetics in high-intensity commercial corridors.
- Allowing micromobility access at the curb, including bike parking or scooter parking intended to corral these uses into a defined environment, provide a structured parking experience, and promote alternative forms of access into the districts.
- Integration of improvements from the bikewalkokc projects into the curbside environment to better mix parking and mobility uses, protect and enhance mobility trips, and create a more connected environment.



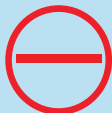
DATA-DRIVEN POLICIES

Description: Data-driven policies can be used to justify and encourage dynamic price and policy, improve marketing, wayfinding, and branding, and create better connectivity within the community. Helps to better allocate parking demand to reduce congestion into and around specific parking facilities.



INTENDED BENEFITS

- Reduced congestion in high demand areas/facilities
- Better utilization of parking facilities
- Equitable parking options
- Better decision-making in commute choice



POTENTIAL CHALLENGES

- Setting the correct price to define behavior
- Enabling over-population of certain facilities
- Ongoing data management and policy changes (needs to be frequent and dynamic to manage assets properly)

DISTRICTS TO CONSIDER



REQUIRED CHANGES

Define data-driven practices to collect, analyze, store, and communicate data. Reserve the ability to change rates periodically without council approval (using pre-defined rate ceilings and floors)

SUPPORTING POLICIES

- Shared Parking
- Curbside Management Policies
- Implementing Paid Parking
- Demand-Based Parking Pricing
- Progressive Parking Pricing
- Enhance Residential Parking Practices
- Right-Size Parking Policies and Codes
- Surface Parking Exit Strategy

KEY PARTNERSHIPS

- Business districts
- Commercial loading operators
- TNC and Passenger transport services

PERFORMANCE METRICS

- Parking occupancy
- Business owner satisfaction
- Reduced congestion

One of the central tenets of the new approach to parking and mobility management in Downtown Oklahoma City should be the use of system data to support better policy, price, and practice decisions that are consistent with the intended vision and outcomes of the program. This will include the frequent collection of data, ongoing analysis of data, and use of performance indicators and benchmarks to define when and how to make changes.



KEY RECOMMENDATIONS:

- Use existing and potential data collection sources to catalogue parking system data
- Explore ways to aggregate existing and future data into a singular platform
- Implement data analytics practices and processes in the parking and mobility program
- Define metrics and indicators to define policy changes
- Evaluate demand-based pricing practices for the parking system

IMPLEMENTATION STRATEGIES

COTPA and the City likely have access to multiple data points today that can be used to drive policy and practice decisions. With a further review of that data, plus the addition of new data streams, COTPA and the City can be well on their way to making more data-driven decisions related to parking and transportation.

Data Collection Mechanisms

There are numerous channels for collecting parking data within the system to inform smarter policy, price, and practice decisions, including:

- Manual data collection
- Back-end systems (both on-street meters and parking access revenue control equipment)
- License plate recognition equipment
- Citation management systems
- Program revenue and budget sources
- Complaints to transaction ratio
- Transit and MaaS platforms

Case Study - Seattle, WA

The Seattle Department of Transportation (SDOT) uses parking occupancy data to adjust on-street parking rates through its Performance-Based Parking Pricing Program, which began in 2010. This data-driven approach to rate-setting uses the principles of supply and demand to ensure appropriate management of the curb space and to provide reliable access and parking availability. The goal of the program is that parking is well-utilized in high-demand areas and that drivers can reliably find a space near their destination. SDOT is recognized as a leader in the industry in implementing such a data-driven program, and more cities are moving toward a similar system. From 2010 through 2016, SDOT has made over 140 changes to rates, time limits, and paid parking hours based on Annual Paid Parking Study results. Prior to 2016, SDOT generally set one rate over the entire day of paid parking hours. Because demand can vary greatly over the course of the day, SDOT in 2016 began managing parking by time of day.

Data to be collected includes:

DATA SOURCE	DESCRIPTION
PARKING AND CURB SPACE INVENTORY	Provides the baseline for analysis and allows COTPA and the City to track changes to the parking system over time and the impacts of those changes (e.g., removal/addition of parking, regulatory changes).
PARKING OCCUPANCY	Indicates how well the system is being used and when parking strategies need to be implemented or adjusted. Time limit policies can be adjusted to either encourage or discourage use. Subsets of occupancy that should be evaluated include: <ul style="list-style-type: none"> • Parking garage occupancy vs. commitments • Metered parking occupancy • Residential area parking occupancy
PARKING DURATION	Indicates how long people are staying in given locations. Pricing and timing policies can be adjusted based on the surrounding uses and turnover rate.
CITATION VOLUME AND TYPE	Indicates how many citations are issued and whether violations are occurring in isolated areas over a given period of time. An analysis of this information can show whether citations are increasing and may lead to further analysis to figure out why that is happening and if an adjustment in the parking strategies and policies is needed.
PROGRAM REVENUE	Changes in revenue, when viewed granularly, can define how parking demands are shifting, the success of policy changes, and the realization of pricing and practice changes. Revenue's should be viewed as on-street, off-street transient, off-street permit, and citations at a minimum. Observing trends within these categories can indicate changes to performance and behavior.
CUSTOMER SATISFACTION	Conducting customer satisfaction surveys periodically can define how patrons are reacting to changes in the program. COTPA and the City should consider satisfaction levels of residents, businesses, employees, and customers at a minimum.
VEHICULAR CONGESTION	Reduction in vehicle miles traveled and localized congestion is an indicator that parking management strategies are effective at redistributing demand and overall access to the community.
TRANSIT RIDERSHIP	Changes in transit ridership, whether a regional or local route, can indicate a shift in both parking demands and access patterns. When combined with parking specific metrics, COTPA and the City should be able to define the effectiveness of specific policy and practice changes.
MODE SPLIT	Overall mode split into the community is a key characteristic in defining shifting behavioral and access patterns. Reductions in drive alone rates can be a clear indicator that parking policies are working.

Data Aggregation Mechanisms

The current data sources for COTPA and the City are confined to either manual data collection sources (like the initial phases of this study) or from back-end parking systems (Parkeon for on-street; Skidata for off-street). In order to fully leverage the intended management benefits from the back-end systems, COTPA and the City should consider a data aggregation system that allows for all existing systems to input data into a centralized location. The centralized dashboard should provide the parking management team with the ability to quickly analyze data trends, identify operational challenges, and inform program changes. An ideal system would also allow for flexible customization of data inputs and reporting outputs.

Data Analytics Processes and Practices

Once there are processes and tools in place for collecting and viewing data, COTPA and the City should define practices for analyzing data. A few key considerations include:

- 1 Review similar periods of time and sets of data
- 2 Utilize similar practices when collecting data for comparisons
- 3 Create a dashboard of historic outcomes and use the current and historic data points to create ongoing trends analyses
- 4 When analyzing changing trends, consider what outward influence would affect changes in data
- 5 Clearly communicate changing trends, influential data points, and outcomes to help drive new policy and practice decisions

As stated in the Technology section, COTPA and the City should hire or find a data scientist who can be engaged in the planning and processes for ongoing data analytics, including the communication of outcomes and how those outcomes influence parking, mobility, and transit decisions moving forward.

Policies Tied to Data Analytics

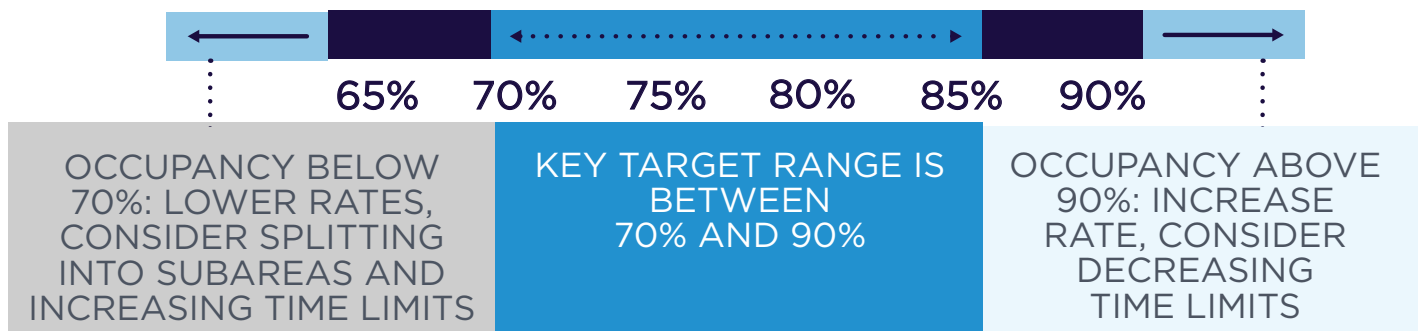
As COTPA and the City progress along the path to deeper data analytics, the corresponding policies and practices that should be tied to the analytics will become more apparent. Initially, COTPA and the City should include these policy areas, at a minimum:

PARKING PRICING	Using occupancy data to define how much to charge based on demands (prices will go up and down)
TIME REGULATIONS	Using occupancy, duration, and citations to define how long people can park and when regulations should be set
HOURS OF ENFORCEMENT	Using occupancy, citations, and customer input to define the need to manage parking, before or after traditional hours
OVERALL RATES	Using occupancy, commitments, and access information, the off-street system should be managed to customized oversell rates for the parking garages
LOADING ZONES	The application and management of loading zones should be based on proximate delivery space and usage of loading zones. Corresponding policy and price should be adjusted as well

Performance Metrics and Evaluation Criteria

The following performance metrics should be used initially to address the policy analytics:

PARKING PRICING	<p>Occupancies below 65% should see decreased pricing. Occupancies above 90% should see increased pricing. Occupancies within 5% of those targets are considered on the cusp of needing price changes and should be monitored. Occupancies between 70% and 85% should see rates held constant.</p>
TIME REGULATIONS	<p>Reviewing parking durations and corresponding policies and citations should provide guidance on how and when to adjust time regulations. For example, in a section of street with two-hour time limits, if the average duration is routinely three hours and citations indicate a trend of overstaying time limits, regulations should likely be adjusted up (or patrons should be educated of off-street options). Using average durations from data collection (manual or LPR) will provide the guidance needed to set effective regulations.</p>
HOURS OF ENFORCEMENT	<p>Using occupancy thresholds defined in number one above, COTPA and the City can effectively monitor nighttime demands, especially in the vicinity of commercial areas. Consistent parking occupancies at or above 90% after enforcement hours is an indication that enforcement hours should be extended.</p>
OVERALL RATES	<p>Off-street parking facility occupancy thresholds are similar to on-street pricing thresholds listed in number one above. The off-street facilities should target occupancy levels at 85% or above during peak conditions. This should be inclusive of both committed/permited spaces and transient spaces. If trends over time indicate that permit users are not maximizing utilization of their spaces, COTPA and the City should provide those available spaces to transient users until permit trends dictate otherwise.</p>
LOADING ZONES	<p>Much like the on-street thresholds for vehicular parking, COTPA and the City should consider demand-based policies and pricing for loading zones throughout the community. In areas where loading zones are in high demand, their location, management and pricing should be dictated by the demand for use. This should include time of day policies for managing loading zones that price use higher during peak congestion periods.</p>



Demand-Based Pricing Policies

The data-driven policies listed in this section are intended to influence all facets of the program. One primary component is the introduction of demand-based pricing to influence the distribution of parking demand throughout the entire system. More efficient and effective distribution of parking demands will lead to reduced congestion, better access decisions, and a more balanced utilization of the entire parking and mobility systems. The following principles should be implemented as COTPA and the City move to a more data-driven pricing model for both the on-street and off-street systems.

DEFINE PRICING TYPES TO BE UTILIZED	
DYNAMIC OR VARIABLE PRICING	Differing parking prices based on observed or historical demands. Each transaction in an area is still governed by time limits and is set to a specific per hour price level.
PROGRESSIVE PRICING	Prices for parking fluctuate by length of transaction. Time limits are effectively eliminated and duration of stay decisions are monetized. For example, a two-hour transaction could be \$2 per hour, while a three-hour transaction would be \$2 per hour for the first two hours and then \$3 per hour for the third hour. The intent is to remove restrictions and direct behavior through price.
DISCOUNT PRICING	For areas or facilities that are underutilized, the application of discount pricing (when combined with escalating prices in high demand areas) could incentivize higher use of the facilities.
EVENT PRICING	On-street parking rates around large event centers (like the arena) should have policies in place to charge event rates and conditions. For example, for a Thunder basketball game, rates could be set to a flat fee of \$15 with no time limits. This rate would cover an hour before the game until enforcement begins again the next morning.

DEFINE RATE SETTING POLICIES AND PRACTICES	
ADJUSTMENT PERIODS	Predefine adjustment periods for rates, including necessary time for data collection and analytics. Initially, COTPA and the City should strive to do this annually.
RATE CEILING AND FLOORS	COTPA and the City should define a minimum and maximum rate that program managers can work within to guide the annual rate setting process. Based on an existing rate of \$2 per hour, COTPA and the City should institute a ceiling of \$6 per hour and a floor of \$1 per hour.
RATE ADJUSTMENT INTERVAL	COTPA and the City should predefine the adjustment interval so that annual rate changes are predictable and affordable. Based on existing rates, COTPA and the City should institute a rate adjustment interval of \$0.50 to \$1 per hour.

TECHNOLOGY IMPROVEMENTS

Description: Technology can provide a better provision of information about parking – location, assets, prices, availability – to make better decisions. Use of new parking technologies for payment, wayfinding, management, and more, can help improve the user experience and make it easier for the community to park in the community.



INTENDED BENEFITS

- Improved customer decision making
- Better balance parking access and utilization
- Improved ability to collect data



POTENTIAL CHALLENGES

- Availability of data
- Realizing substantial user base for any smart phone application or platform
- Assembling dataset for a true “Transportation Choice” application

DISTRICTS TO CONSIDER



REQUIRED CHANGES

- Minimal changes required beyond installation of new technology and staff training for new systems

SUPPORTING POLICIES

- Wayfinding Improvements
- Curbside Management Policies
- Data-Driven Policies to Support Balanced Utilization
- Demand-Based Parking Pricing


KEY PARTNERSHIPS

- City IT staff
- Business improvement districts

PERFORMANCE METRICS

- Citation issuance (vs compliance)
- Program revenues
- Parking occupancy
- Parking duration
- Business owner and customer satisfaction

One of the best ways to improve program performance, increase customer service, and enhance management options is to leverage the capabilities of parking technologies available to the program. COTPA and the City are fortunate that most of the primary technologies governing the program have recently been replaced. So, the intent of this section is to better leverage existing technologies, find companion technologies to support strategies in this report, and integrate technologies in a meaningful way to improve program performance.

 **KEY RECOMMENDATIONS:**

- Implement a mobile-pay platform
- Collecting and providing more dynamic and/or real-time information

MOBILE PAYMENT PLATFORM

A phone or smartphone-based application that allows patrons to pay for parking without interacting with revenue control equipment (meters or parking access revenue control). Basic functions include paying for parking, with advanced functionality providing navigation and program information.

Considerations - The mobile payment platform should have the ability to:

- Manage payment for both on-street and off-street through one app
- Allow for payment of OKC Streetcar fare (longer term implementation)
- Communicate with patrons about transactions
- Extend parking transaction remotely
- Find available parking supply (either static or real-time)
- Perform in a dynamic-pricing environment
- Pre-reserve parking spaces (off-street only)
- Communicate with connected vehicles

Timeframe - Immediate (underway)



PROVIDING REAL-TIME AND/OR SMART INFORMATION

As COTPA and the City consider enhanced management policies defined in this report, there will be a need for more technology-driven data collection, including sensors, video analytics, LPR data streams, and meter data.

Considerations – the data collection technology will likely vary by location, facility type, and need. The key intention is to provide COTPA and the City with a stream of data that helps with data-driven decision making (see Data-Driven Policies section). The key recommendations include:

- Hire or identify a data scientist in the COTPA program who can help to build, manage, analyze, and communicate results from parking and mobility related databases. The goal of this team member will be to help define and influence data-driven decision making and policy development.
- Provide streams of data that can be aggregated into the necessary data points for decision-making.
- Provide streams of data that are existing, can be automated and do not require City manual manipulation:
 - The Parkeon meters have the capability of providing quasi-real-time parking occupancy information cultivated from transaction data (i.e. a space is filled if a transaction is current). This data should be leveraged by COTPA and the City to better analyze parking usage and for policy/price setting. Additionally, this data could be integrated with a mobile payment application that provides both real-time occupancy information and the ability to pay for the space upon arrival.
 - The Skidata back-end provides a seamless dashboard for management of off-street parking access revenue control equipment, providing a rich set of data that can be used to optimize operations, improve utilization, allow for better oversell of facilities, and generally improve the management functionality available to COTPA. COTPA should leverage use of this platform and ensure that data available can be integrated with on-street data for overall program management.
- Integrate into one back-end dashboard for program analytics purposes.
- Provide real-time data to support smartphone navigation applications or integration with legacy mapping platforms (GoogleMaps, Waze, etc.).
- Serve multiple functions – for example, LPR that is used for both virtual neighborhood permitting and occupancy/duration data collection by neighborhood area or sensors that provide occupancy and reset meters after vehicles leave a space.
- Provide a defined return on investment, including the ability to generate additional revenue (with a focus on patron compliance over additional citation revenue), provide data streams that serve analytics purposes, and integrate with other program technologies.

Timeframe – various components of the technology will be integrated as the technology improvements in this section are realized.

CREATE PARKING OCCUPANCY DATA COLLECTION PROTOCOLS WITH LPR EQUIPMENT

As COTPA and the City enhance the usage of the LPR enforcement equipment associated with on-street management, the agency should implement and maintain protocols for occupancy data collection and analysis.

Considerations – the initial collection of parking occupancy data from the LPR equipment will require some manual preparation and data mitigation, including:

- Creation of on-street parking zones within the LPR’s back-end software. These zones can be blocks at a minimum or small areas at a maximum. Ideally, small areas would be used to minimize data manipulation after collection. When collecting on-street LPR data, the approximate GPS coordinate of the initial read can be off by as much as twenty feet from the actual read.
 - These zones should be able to provide base-level occupancy data for easy review of utilization trends. More advanced behavioral analytics will require some manual manipulation.
- Creation of output reports for manual review of behavioral data, including the following elements:
 - License plate read
 - Event time stamp
 - Latitude and longitude of reads
 - Zone
- These reports will provide a database of reads that can be used to evaluate the following:
 - Duration of stay – using the event time stamp, the zone, and the license plate read to determine the number of consecutive times a license plate appears in a database
 - Movement – using the zones and the license plate reads to determine how often a vehicle moves around the enforcement observation areas
 - Origin/Destination – using the license plate and an Oklahoma DMV database to determine where commuters originate their trips from and how that influences the decision of where to park

WAYFINDING IMPROVEMENTS

Description: Consistent and branded wayfinding and messaging signage can help communicate information about parking and mobility destinations, resources, and options, and aide users as they navigate the system. Signage should be clear, recognizable, and coordinated with wayfinding that directs users to destinations.



INTENDED BENEFITS

- Improve users' ability to navigate the parking and transportation system and find parking
- Improved information to patrons about the parking system will better balance access and ultimately mode choice



POTENTIAL CHALLENGES

- Must stay in front of the message
- Requires multiple touch points - on the ground, traditional media, social media, etc.
- Erasing negative connotations and creating positive perceptions is often easier said than done

DISTRICTS TO CONSIDER



REQUIRED CHANGES

Adaptation of the recent wayfinding plan to help navigate patrons to existing parking assets. Expansion of wayfinding efforts to new shared parking facilities. Creation of data streams to support online and dynamic navigation.

SUPPORTING POLICIES

- Shared Parking
- Technology Improvements
- Surface Parking Exit Strategy

KEY PARTNERSHIPS

- City communication departments
- Business improvement districts to coordinate messaging and branding

PERFORMANCE METRICS

- Better balance of parking demands in parking facilities
- Reduced congestion
- Increased customer satisfaction

One of the key takeaways from the review of existing conditions was that there is a general lack of understanding of where available parking is within the public (and private) parking system. This is typically a symptom of a poor navigation system and lack of information related to the system. Parking wayfinding is extremely helpful in directing people to desired parking locations.

Parking users should be provided a high-quality customer experience whether they are parking in public on- or off-street facilities or in a private off-street facility. Consistent wayfinding information, branding, and communications about where and how-to park will enhance the user experience and improve access to Downtown Oklahoma City and its districts. The City is in the process of implementing new wayfinding signage and parking needs to be a critical piece of that element.



KEY RECOMMENDATIONS:

- Enhanced program branding efforts
- Develop a consistent wayfinding strategy
- Marketing and messaging campaigns
- Consider smart-phone applications

ENHANCED PROGRAM BRANDING EFFORTS

COTPA should consider branding the program as a standalone element of the parking and mobility system in the community. This program branding helps to clearly delineate who is managing parking and helps to support more efficient messaging and information distribution. The program branding strategy should be simple and memorable, clearly convey the intention of the system, and should be developed to be transparent in operation and practice to help develop support and trust from the community.

COTPA should partner with other community and business organizations and private parking operators to develop a consistent branding and communications strategy for the parking system. A logo for the parking system along with consistent marketing and communications using a variety of media formats will improve the parking experience in Downtown Oklahoma City. That branding should then extend to the parking wayfinding system and the management of private parking facilities.

DEVELOP A CONSISTENT WAYFINDING STRATEGY

The City's proposed parking wayfinding system consists of blue public parking signs placed at the public parking facility. As the capacity of public parking increases with the introduction of the shared parking system, COTPA and the City will need to place parking signage at the entry points for shared parking facilities to promote their usage. Navigation to parking should also consider some levels of trailblazer signage from the City's defined driver decision points to help inform parking decisions and reduce congestion related to searching for parking.

The general rule is to start with directional signage that navigates drivers to destinations, then associated parking signage that defines where to park relative to the destination. Some programs choose to provide real-time parking information for each facility in dynamic signage packages. Given the cost of these signs and data required to inform the dynamic nature of the signs, those types of signage packages are not advised. Rather, simple and direct branded signage should be used to navigate motorists throughout the system.

Marketing and Messaging Campaigns

In combination with the branded signage elements, COTPA should consider various media (print, television, radio, and social) marketing campaigns to educate users. The same branding developed for the wayfinding system can then be used on marketing and advertising campaigns to create consistency throughout the system for users.

Messaging should be simple and to the point. For a great example, COTPA should review the Toronto Green P radio marketing platform that aimed to direct drivers during commute times to branded city parking facilities. The use of media platforms that reach a wider audience will serve to disseminate information in a meaningful way. COTPA should consider implementing a media specialist into the parking program to support messaging.

Consider Smartphone Applications

The addition of real-time parking applications (or coordination with legacy mapping platforms) would serve as an ideal way to communicate location and availability of parking. Static-based applications would simply provide information about where parking facilities are located. A more real-time approach (which would require substantially more data) could provide the availability of parking and opportunities to purchase parking in advance of arrival. If tied in with the COTPA's mobile payment platform, the approach could provide a seamless experience for users.

Looking forward, the ideal smartphone applications would also integrate alternative modes of transportation and commute choice options. In the Downtown Oklahoma City environment, that would include the ability to pay for either parking or transit, ability to define how best to trip chain between parking and destinations using a variety of mobility options, and functionality to provide information on commute choice, cost, and impacts.





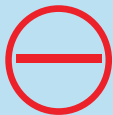
ENHANCE RESIDENTIAL PARKING PRACTICES

Description: In high-demand areas where spillover parking affects nearby residents, residential parking programs enable residents some protections against commercial impacts while also balancing access to on-street parking. The emerging districts in and around Downtown OKC could benefit from creating dynamic policies that allow some access without over-committing neighborhood streets.



INTENDED BENEFITS

- Protects neighborhood streets while realizing there is a need to use right-of-way to support community parking needs
- Limits access when residents need parking most
- Allows access in limited quantities (considering some payment with resident exemptions)



POTENTIAL CHALLENGES

- Creating a policy that residents support (i.e. managing backlash)
- Enforcing parking in a meaningful way to support neighborhood needs

DISTRICTS TO CONSIDER



REQUIRED CHANGES

Creation of governing ordinances that define how, when, and why to apply residential parking programs. Creating permit structures and costs, as well as practices to support efficient enforcement of the programs. Gaining adoption of the program from City leadership.

SUPPORTING POLICIES

- Improved Enforcement Options
- Technology Improvements
- Data-Driven Policies to Support Balanced Utilization
- Implementing Paid Parking
- Demand-Based Parking Pricing
- Parking Benefit Districts

KEY PARTNERSHIPS

- Business Districts
- Neighborhood Associations

PERFORMANCE METRICS

- Parking Occupancy
- Parking Duration
- Resident Satisfaction
- Customer Satisfaction

As on-street demand increases in the commercial areas, there could be spillover impacts to residential areas. In the event that this occurs, COTPA and the City could consider the creation of Residential Permit Parking (RPP) programs. The following are recommendations for implementation of RPP's should the need arise. RPP's should only be implemented on an as-needed basis at the request of residents and through a thorough vetting process.



KEY RECOMMENDATIONS:

- Develop clear criteria for establishing RPP districts
- Consider mixing with short-term paid parking (with opportunities for benefit districts as revenue allows)
- Implement virtual permitting and LPR-based enforcement to improve management of residential areas

The implementation of residential parking permit policies will likely require some advanced technology and policy considerations. The following sections describe some examples.

DEVELOP CLEAR CRITERIA FOR ESTABLISHING RPP DISTRICTS

A residential parking permit program allows permit holders (residents or visitors with visitor passes) to park on-street in select residential neighborhoods while restricting those without a permit from parking on-street in the area during select times. Although a permit does not guarantee a permit holder a space, or a space directly in front of their home, this type of program prevents non-residential users from occupying spaces in residential areas. The following criteria should be established for the implementation of RPPs:

- Minimum occupancy and percentage of non-resident vehicles - occupancies have consistently reached 85 percent and spillover impacts of parking become a nuisance for residents
- Support from residents and/or businesses - extensive community engagement process to weigh the needs of the greater community with that of the neighborhood residents.
- Residency and/or employee requirements - permits can restrict non-residential users all day, every day. However, it is advised that parking restrictions reflect peak residential demand and be implemented during peak periods in the evenings and overnight. Cities often have distinct regulations in differing residential areas, which requires additional administrative oversight, but helps to cater the restrictions to the specific issues of that neighborhood.
- Permit limitations either by household or total within the district - limits should be set for the number of permits per household. Typical limits are two permits per household with the availability of a limited number of guest permits throughout a calendar year.

CONSIDER MIXING WITH SHORT-TERM PAID PARKING

Implementing paid parking in residential areas requires a greater level of review and management as the intent isn't directly the same as in commercial areas. While both are rooted in managing parking demands and promoting space availability, the true intent in a neighborhood area is to manage the impacts of spillover demands from commercial areas. Much like implementing time limited parking in neighborhood areas, paid parking should only be implemented in the times of day when residential demands allow for sharing of the on-street parking capacity.

Prices should be set such that spillover demands are minimized only to the capacity available, rather than promoting patrons to circulate through the neighborhoods looking for cheap parking options. The same data-driven principles discussed in previous sections should be applied in neighborhoods. That is, if demands dictate higher prices, COTPA and the City should not hesitate to raise prices to control the flow of traffic into neighborhoods.

Monetization of neighborhoods should also be limited to mobile payment options. Residents are likely not going to respond well to parking meters in their streets, so a simple combination of signage and mobile payments should allow for monetization without degrading the aesthetics of a neighborhood. The mobile payment platform also allows the neighbors to park without having to validate their vehicle, since the enforcement would be license plate based and virtual.

The implementation of monetized parking and benefit districts will require intensive coordination with neighborhood associations. COTPA and the City should use these forums to discuss the implications of implementing and not implementing the RPP districts. The intent would be to help the residents understand the mitigation impacts of implementing paid parking, as well as the returned benefits that would result from the implementation. COTPA and the City would likely also need to include representatives from neighborhoods on any parking committees established to help them maintain a voice in the decision-making process.



VIRTUAL PERMITTING

A singular strategy that could improve enforcement, operations, and management of the residential parking program would be the introduction of virtual permitting. In a virtual permitting environment, residents would simply register their vehicles license plate numbers rather than having to request, obtain, and display a hangtag or sticker. The same regulations on numbers of permits would apply to residents, with multiple license plates being eligible up to the maximum number of permits.

For guests, the residents would have the option to pre-register guests using either a smartphone application, the City's website, or by calling the City. In any case, they would simply communicate the guests license plate information. If using the smartphone application option, the process is typically as simple as taking a photo of the guest's license plate and confirming the correct license plate number after the system processes the data.

In the case of contractors or workers who obtain guest permits to work in neighborhood areas, many cities have allowed those vehicles to be pre-registered by the contractor or worker. Those laborers would register their vehicles plates, the length of time the job would be occurring, and the area the job (or jobs) would be occurring. This allows for more flexibility for home repairs or renovations and takes the onus off of the homeowner to manage the permit.

The enforcement of virtual permits is conducted using LPR equipment (as described in the Technology section). The enforcement staff would simply drive through the neighborhood areas and confirm the validity of permitted vehicles and presence of unregistered vehicles. During time periods where unregistered vehicles are allowed to park for periods of time, the LPR equipment can digitally chalk the tires and evaluate whether those vehicles are staying over the defined time.



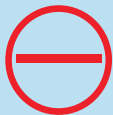
MOBILITY ENHANCEMENTS

Description: Improvements to mobility elements – including cycling, walking, transit, and personal mobility amenities – can provide a more balanced transportation system in the Downtown OKC area. This improved balance can lessen the burden of parking in high demand areas and create connectivity between districts.



INTENDED BENEFITS

- Promote lessened parking demands and/or a park once environment
- Improve connectivity for downtown area patrons
- Leverage recent investments in mobility elements



POTENTIAL CHALLENGES

- Promoting behavior change often requires disincentives to change patterns
- Coverage of connectivity can limit the effectiveness of mobility enhancements

DISTRICTS TO CONSIDER



REQUIRED CHANGES

Creation of policies and partnerships with mobility providers to support efficient implementation and equitable use of mobility amenities. Review and modification of ordinances that govern the safe and effective use of non-automotive modes on the street network.

SUPPORTING POLICIES

- Shared Parking
- Curbside Management Policies
- Right-Size Parking Policies and Codes
- Transportation Demand Management

KEY PARTNERSHIPS

- City Transit Agencies
- Private Transportation Network Companies
- Downtown Mobility Advisory Committee

PERFORMANCE METRICS

- Improved Ridership for Streetcar
- Lessened Parking Demand in High-Demand Areas

The world of mobility is rapidly changing. Just in Downtown Oklahoma City there has been an extreme transformation in the last few years with the introduction of bikeshare, mobility as a service, and the Oklahoma City Streetcar. The advent of all of these mobility options provides a great platform for shifting the way that residents, employees, and visitors arrive in and move around the downtown community. While this effort focuses on advanced parking management strategies, there should be a distinct connection between parking and mobility to make both systems compatible and successful.



KEY RECOMMENDATIONS:

- Integrate bikewalkokc with the parking strategy implementation
- Consider district and place-based mobility hubs
- Designate curb space for rideshare pick-up and drop-off
- Adopt policy and program frameworks that manage services and monetize access
- Embrace new shared mobility devices

INTEGRATE WALKING AND BIKING IMPROVEMENTS

Walking and bicycling are the foundational benchmark for good urban places. Walking, in particular, is the most basic form of transportation, and all travelers, no matter their primary mode of travel, are pedestrians at some point in their trip. Walkability and bikeability are the positive outcomes of good urban form, land use policy, and design. The Downtown Oklahoma City area, with its compact size, tight, gridded streets, and attractive urban form, is inherently walkable and bikeable.

Despite inherent advantages, specific efforts should be taken to further invite and encourage walking and bicycling. The goal of effective pedestrian and bicycle programs is to establish walking and biking as normal, convenient, everyday travel modes, and encourage users of all ages and abilities to feel comfortable walking and biking in “low stress” facilities that are buffered from motor vehicle traffic. A few specific examples to consider in the Downtown Oklahoma City area include:

- Protected bike/scooter lanes to significantly improve safety, experience, and shorten distances between districts and more remote parking areas.
- Opportunities for cycle tracks and off-street paths, or bicycle lanes that are buffered/separated from moving vehicular traffic by curbs, landscaping, bollards, and/or parked vehicles.
- Retrofit of existing on-street parking spaces as corrals for bike parking and for parklets to enhance the pedestrian experience and calm traffic.
- Integration of dockless on-demand mobility devices where possible and designate appropriate curb space for parking these devices.

CONSIDER DISTRICT AND PLACE-BASED MOBILITY HUBS

Shared mobility options can play a critical role in addressing “first-mile/last-mile” connectivity needs at the beginning or end of a trip. First-mile/last-mile connectivity means connecting travelers between destinations and parking facilities or transit stations, either during the first leg of the trip, or during the return trip. These are particularly effective in filling the first-mile/last-mile access gap for those traveling via transit, thus facilitating a non-single-occupant vehicle multimodal trip.

COTPA and the City should work collaboratively to create “mobility hubs” by clustering TNC loadings areas and dockless on-demand personal mobility devices near or adjacent to transit stations, large consolidated parking structures, park-and-ride facilities, and/or major destinations like Scissortail Park or Bricktown.

DESIGNATE CURB SPACE FOR TNC RIDESHARE PICK-UP AND DROP-OFF ZONES

Curb space is at a premium in Downtown Oklahoma City, as it is in cities across the United States. A variety of often competing uses vie for space along the curb, including on-street parking, loading zones, TNCs, dockless on-demand personal mobility devices, and others. Flexible curb space management is critical to maximizing the efficiency and functionality of the curb to serve the adjacent land uses, and prioritizing the right curb use at the right time of day.

For example, a curb zone located near popular restaurants and entertainment establishments that is on-street parking with low turnover during the day is best prioritized as a pick-up/drop-off area during the nighttime entertainment hours. Doing so facilitates greater access to the destinations along particular curbs by giving TNC vehicles access to curb space and reducing the need for these vehicles to stop in the line of traffic to pick-up and drop-off riders (thus helping to relieve congestion).

COTPA and the City should partner directly with Uber and Lyft to identify and designate flexible curb zones in areas adjacent to commercial entertainment land uses: i.e. curb space that functions as on-street during the day and TNC pick-up/drop-off areas at night when demand spikes. COTPA and the City will need to initiate discussions directly with Uber and Lyft through the establishment of a business account. COTPA and the City will then work with an assigned business representative to set up the terms of the arrangement.



ADOPT POLICY AND PROGRAM FRAMEWORKS THAT MANAGE SERVICES AND MONETIZE ACCESS

Establishing the policy ecosystem in which shared mobility and MaaS options will exist and operate in Downtown Oklahoma City is essential. COTPA and the City should adopt policies that set the terms of operation by shared mobility services like TNCs, dockless on-demand personal mobility devices, and other options. Adopted policies ensure the city earns its fair share for providing service platforms access to its residents, the city can glean vital information on user mobility behavior, and services positively enhance the overall access, circulation, and mobility for all users without causing externalities.

COTPA and the City should initiate the following practices:

- Where possible, initiate Requests for Proposal for the provision of shared mobility service. Doing so allows COTPA and the City to set the terms of operation and dictate requirements such as service location and objectives, accessibility compliance, data sharing, operations and maintenance, and evaluation and reporting.
- Collaborate with TNC's to collect and share their anonymized user data with COTPA and the City. This data is a robust snapshot of user mobility behavior and could be integrated into COTPA's data sets to inform transportation and parking management decisions.
- Review and stay abreast of policies related to TNC monetization. Cities around the United States are providing TNCs with access to their street space, limited curb space, and ultimately, their customers. Cities deserve commensurate value in return. The City of Chicago imposes a fee of \$.67 on every Uber and Lyft ride, money that is used to fund public transportation improvements.
- Adopt a platform that consolidates shared mobility and parking elements into one management dashboard, allowing for the collection of user data, the management of mobile parking payments and the opportunity to monetize curb access by shared mobility options.



EMBRACE NEW SHARED MOBILITY DEVICES

Urban trips of one to three miles are too short for most people to drive and park, or even take transit (unless the transit service is conveniently located), and too long for people to walk. On-demand mobility options are emerging and evolving in today's marketplace, some providing rides in a vehicle shared with other rides (like Uber and Lyft, as well as Gotcha Ride, for example), while other options offer personal mobility devices (like dockless shared bikes and scooters). Shared mobility platforms like Gotcha Ride, Uber, and Lyft are aggregating multiple device options within a single mobile platform, so users can catch a ride in a rideshare vehicle and then utilize bike share and scooters as well from the same platform provider.

Dockless on-demand mobility devices like scooters and bikes (which offer personal transportation) are filling this important flexible mobility need in the overall transportation ecosystem. New vendors and platforms have been emerging in recent years, but there is an evolution toward dockless human-powered and electric-assist devices that are shared between users and available via a mobile platform at a moment's notice. These devices are readily available, enjoyable to ride, easy to use, and offer point to point connectivity. New and different kinds of devices will continue to emerge as technology changes, but on-demand personal mobility devices are here to stay, and cities must adapt and evolve as well.

COTPA and the City should evaluate and embrace shared mobility devices by:

- Maintaining a philosophy of openness and acceptance to new shared and personal on-demand mobility options. New and different options, with different vehicle types, are expected to continue to evolve and come online. COTPA and the City should set up policies that are flexible and emphasize and promote the city's top mobility priorities, no matter the specific shared mobility device.
- Adopting policies that outline to providers the terms of operation, maintenance, data sharing, and allocation/re-balancing of dockless units across the city.
- Integrating the provision of space and resources for shared and alternative mobility devices in development requirements for new developments.
- Integrating shared mobility devices in all public mobility resources and communications to increase the exposure and access to information about devices among the public.
- Implementing policies and education campaigns that regulate where devices should be operated.
- Ensuring there is adequate on and off-street infrastructure for these devices to operate.
- Designating space on the sidewalk and/or along the curb for parking of dockless devices. This is being done with dockless scooters and bikes in Arlington VA, Minneapolis MN, and other cities. These cities are designating the parking areas on and off the street with paint and leveraging the GPS capabilities within the mobile apps to identify the virtual parking hubs.



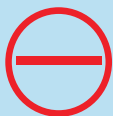
TRANSPORTATION DEMAND MANAGEMENT

Description: Transportation Demand Management (TDM) policies are intended to provide incentives and disincentives for commuters to make better commute choices. This suite of policies would be tailored to reduce overall reliance on the automobile, specifically single occupant vehicle trips.



INTENDED BENEFITS

- Promote lessened auto dependence, reducing congestion and parking demand
- Leverage mobility options to create a more balanced method of access into and around Downtown OKC
- Reduce burden on street and parking system to accommodate commute traffic



POTENTIAL CHALLENGES

- Creating behavior change and alternative commute choice without provide proper incentives for change
- Lack of communication could affect overall adoption of TDM programs
- Reliance on employers and new development to include TDM elements into design

DISTRICTS TO CONSIDER



REQUIRED CHANGES

Introduction of TDM driven policies in the cities code of ordinances. An example would be the Modern Mitigation strategies outlined in the Right-Sized Policies section.

SUPPORTING POLICIES

- Shared Parking
- Data-Driven Policies to Support Balanced Utilization
- Implementing Paid Parking
- Demand-Based Parking Pricing
- Progressive Parking Pricing
- Enhance Residential Parking Practices
- Parking Benefit Districts
- Right-Size Parking Policies and Codes
- Mobility Enhancements
- Surface Parking Exit Strategy

KEY PARTNERSHIPS

- City planning
- Traffic operations
- Downtown business districts

PERFORMANCE METRICS

- Reduced congestion
- Reduced parking demands
- Balanced access and mode split

Transportation Demand Management (TDM) strategies consist of programs, services, and policies designed to encourage transportation alternatives. Implementation of TDM measures helps mitigate traffic impacts and parking demand associated with single occupancy vehicle (SOV) trips. TDM measures vary and can include bicycle- and pedestrian-facility improvements; promotion of vanpool, carpool, and transit; provision of other shared mobility services like on-demand rideshare and shuttle services; and commute incentive programs to encourage employees to use transit, bike, or walk to work.

COTPA and the City should consider the following types of TDM programs in the design and implementation of large developments moving forward:

- Financial Incentives/Disincentives - Develop programs that encourage or discourage certain behaviors by making transportation options more or less expensive. For example, offer reduced cost transit, subsidies for vanpooling, or a guaranteed ride home program.
- Parking Regulations - Implement parking regulations that promote efficient use of existing parking resources. For example, eliminate free parking and utilize demand-based pricing.
- User Information and Marketing - Establish user information and marketing platforms such as mobile apps, maps, websites, etc. to locate available parking spaces in real time, so users know where to go to park thereby reducing “hunting” for spaces. This promotes sustainability through reduced carbon emissions and increases customer convenience.
- Provide employer based TDM programs - The city should encourage employer participation in the TDM program by sharing information about incentives such as pre-tax commuter benefits, subsidized transit passes, and preferential parking for carpool and vanpool participants. The intent of these incentive programs is to not only give employees options on how they travel to work but also to incentivize the choice to not drive a personal vehicle by offering some type of monetary compensation.
- Consider residential TDM components - most residential developments are providing parking at one to two spaces per residential unit. This only subsidizes the decision to drive frequently. Implementing residential based TDM programs, such as unbundling parking from leases or sales of residential units, can help to incentivize lower car ownership and use.

COTPA and the City should act as a facilitator in the implementation and use of TDM in future large-scale developments. The introduction of TDM initiatives will further serve to distribute and balance demands beyond just the street network and onto the growing multimodal options within the City. The concepts of Modern Mitigation outlined in the Right-Sized section of this toolbox outline many code based strategies to consider elevating the importance of TDM in the community.



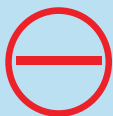
SURFACE PARKING EXIT STRATEGY

Description: An adopted policy by COTPA and the City to begin to eliminate surface parking through redevelopment, sharing of centralized spaces, and management of development-driven parking. The intent of this strategy is to minimize surface parking, improve operational efficiency, and provide a lever for reducing parking supply as transportation demographics change.



INTENDED BENEFITS

- Improve parking occupancy for the system and districts by reducing supply
- Centralized management of parking assets
- Strategic approach to reduce parking if transportation demographics change



POTENTIAL CHALLENGES

- Assembling private spaces in a shared system
- Creating footprint of parking supply to meet needs of destinations
- Timing transportation demographic changes to maintain proper supply

DISTRICTS TO CONSIDER



REQUIRED CHANGES

Introduction of shared parking with private parking owners. Creation of policies and practices intended to incentivize use of the shared parking system. Identification of underutilized surface parking that can be redeveloped over time.

SUPPORTING POLICIES

- Shared Parking
- Data-Driven Policies to Support Balanced Utilization
- Implementing Paid Parking
- Demand-Based Parking Pricing
- Progressive Parking Pricing
- Enhance Residential Parking Practices
- Parking Benefit Districts
- Right-Size Parking Policies and Codes
- Mobility Enhancements
- Transportation Demand Management

KEY PARTNERSHIPS

- Downtown business districts
- Area developers
- City planning

PERFORMANCE METRICS

- Overall system and district parking occupancy
- Reduced footprint of parking

As transportation modes shift and the overall demographics of driving changes, there needs to be some consideration for how to plan for the future while managing for today. Many engineers and planners point to the concepts of adaptive reuse of parking facilities to provide parking today with an eye towards transition in the future. The primary issues with this approach are a) the cost to design and construct adaptive reusable parking facilities is considerably higher than normal parking, and b) the introduction new parking does not account for an oversupply of parking today.

In reality, the best approach to manage parking today with an eye for the future is to make parking more efficient now and strategically consider how to remove parking for future development. This approach, called a Surface Parking Exit Strategy, provides guidance to consolidate parking today and begin to remove parking to account for overages today and shifting demographics tomorrow. The ultimate goal is to provide an opportunity for the community to reach its development potential while also managing the supply of surface parking - a low priority use of available land in a vibrant community like Downtown Oklahoma City.



KEY RECOMMENDATIONS:

- Adopt a shared parking approach to today's parking
- Create a surface parking exit strategy for downtown area and its districts to support area growth



SURFACE PARKING EXIT STRATEGY COMPONENTS

The introduction of a surface parking exit strategy will help COTPA and the City define where to target management decisions and investment opportunities for private development. The strategy will need to be fluid to respond to changes to community desire, the economy, and the rate of change in the transportation industry (e.g. mobility as a service and autonomous vehicles). Because of this need for fluidity, there is no one direct approach for the strategy, but rather a set of principles to consider that define the overall approach.

1. Manage private parking spaces to create public supply – this is the consolidation of a fragmented system of parking into a more holistic system managed by a single entity (see the Shared Parking section of this toolbox).
2. Implement incentives and funding resources for the centralization of parking – these are the tools used to promote centralized parking, including incentives, fee in-lieu programs, or the application of management districts (see the Right-Sized section of this toolbox).
3. Removing surface parking spaces first – as the desire for development and redevelopment occurs throughout the district, the City and COTPA should target underutilized parking facilities as opportunity sites, with the caveat that shared parking supply around that site can support growth.
4. Only build parking when truly needed – this would dictate that new public parking would only be built when absolutely necessary (see the Parking Investment Strategy section of this toolbox). In the event that the private sector wishes to build parking, the use of public-private partnerships to create public parking can help to minimize overbuilding parking and support a centralized approach to parking. If parking needs to be built, ideally it would be:
 - a. Be built on the fringes of developed areas so that walkability and density are not adversely affected by standalone parking.
 - b. Be created with a mixed-use nature in mind, with portions of the site accommodating development and a mixture of public and private parking at a minimum.
 - c. Be adaptable for connected and autonomous vehicles so that as the transportation system evolves to a more autonomous nature, the interior configuration of the garage can be migrated from human-designed to vehicle-designed with more density in parking configurations and ability to communicate with smart vehicles.



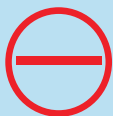
PARKING INVESTMENT STRATEGY

Description: A parking investment strategy will act as a guide for the City to make parking-related decisions in the future. Characteristics for investment include: area demands, proximity to demands, ability to generate new business, ability to manage parking demands, land use, revenue generation, and ability to serve mixed-use.



INTENDED BENEFITS

- Better decision making on investments in new parking, leasing spaces, public-private partnerships
- Better implementation of new parking assets
- Right-sized parking investments



POTENTIAL CHALLENGES

- Lack of parking investments in areas that do not meet requirements
- Reliance on private parking in non-investment areas

DISTRICTS TO CONSIDER



REQUIRED CHANGES

- Policy on public-private investments would need to be changed.

SUPPORTING POLICIES

- Shared Parking
- Data-Driven Policies to Support Balanced Utilization
- Parking Benefit Districts
- Right-Size Parking Policies and Codes
- Transportation Demand Management
- Surface Parking Exit Strategy

KEY PARTNERSHIPS

- City planning department
- Area development community

PERFORMANCE METRICS

- Parking occupancy
- Return on investment from public-private decisions

Given how much public supply already exists in Downtown Oklahoma City, as well as the availability of parking within the system, this study does not recommend the prioritization of new parking infrastructure in the near term. Even if the parking appears to pencil from a development standpoint, the inclusion of new parking spaces may not work in concert with the goals and objectives of this study and could likely contribute to more traffic congestion and competition for space in the rapidly growing districts.



KEY RECOMMENDATIONS:

- Incentivize appropriate new development to participate in shared parking program.
- New parking is not likely needed at this time given the prevalence of available parking. Instead, investments should be skewed more towards mobility, transportation, and management enhancements in the near term.

NEW DEVELOPMENT IN THE SHARED PARKING PROGRAM

When possible, new developments in the immediate future should be incentivized to participate in the City’s shared parking program. The Right-Sized Parking section identifies several incentive strategies to facilitate this type of growth. This approach should help to create more balance in the existing parking system and support better infill growth that creates a more dense and walkable Downtown Oklahoma City.

However, not all developments are created alike. A smaller scale redevelopment in Automobile Alley that needs twenty parking spaces is an ideal candidate for the shared parking system. A mega-development on the Cox Convention Center redevelopment site that needs many thousands of spaces is not. The City and COTPA will need to weigh the magnitude of the development when leaning on shared parking and incentives to support. The results of the Park+ analysis (defined in the district summary sections) provides examples of the types of developments that will and will not support shared parking concepts.

In the event that a mega development needs to provide its own parking, it also represents an opportunity for the City and COTPA to incentivize shared parking on this new development site. The introduction of a public-private partnership in the development of the on-site parking can create new public parking supply that better serves adjacent development and uses. The use of a parking maximum with public parking overages also dictates that the developer should consider excess parking capacity public, further strengthening public parking capacity throughout the study area.

WHEN TO INVEST IN PARKING

While the majority of this strategy document focuses on more efficient use of the existing system, enhanced management to promote better access, and collective ways to implement mobility and parking solutions, there may be a need to implement new parking investments in the community at some point. This need may be driven by demand issues, economic development goals, or opportunities for collaboration with the private sector.

Whatever the reason, it's imperative that the City make good decisions related to the investment in new off-street parking spaces – especially those that are located in off-street parking structures. In 2018, the national average to construct a parking garage was approximately \$20,000 to \$25,000 per parking space. A miscalculation on investment strategy can have tremendous financial impacts to the City.

The following sections serve as a guide for evaluating the feasibility and potential of structured parking investments.

Factors Impacting Investment Strategy

The first step in evaluating potential parking investments is to define the factors that contribute to the successful outcome of building new parking capacity. These factors could include:

1. Location – the parking facility is within an ideal proximity of high-intensity destinations that require parking. While a parking facility may be located to serve the development around it, it should also be able to provide demand mitigation for other community destinations.
2. Ability to mitigate demands – the parking facility should be designed and managed to support community parking demands, rather than simply supporting the development associated with its construction.
3. Ability to serve multiple users – ideally the parking facility should be managed to support the peak demands of multiple user types (e.g. commuters and visitors during the day, and those going to entertainment venues in the evening and on weekends), preferably over multiple demand periods. Ideal parking garages operate 24/7, generating revenue and mitigating demand issues throughout the entire day.
4. Revenue generating potential – the parking facility should be developed and managed to generate revenues in excess of operating costs, at least after the first couple years of facility opening.
5. Ability to leverage community and economic growth – new parking facilities should serve more than a singular user such that their introduction into the community creates new opportunities for development/redevelopment around them that are supported by centralized shared parking.
6. Ability to balance mobility and access away from core – for those parking facilities that are not located in high-demand areas, they can still serve a purpose by incentivizing fringe area parking with transit access into the core. Or, the parking facility can serve as a “mobility hub” with rideshare, transit, and other mobility elements integrated within the facility.
7. Associated costs – the per space cost to build the parking structure, as defined by probable engineering estimates of cost, land acquisition costs, and even ongoing maintenance and operational costs.
8. Access to Public-Private Partnership – some parking facilities are collaborative efforts between the City and private entities. These arrangements often have the mutual benefit of shared costs, reducing the burden on both parties and creating successful opportunities to promote a more mixed-use of parking facilities.

These are initial thoughts on investment factors. COTPA and the City should certainly add to this list and evaluation as it encounters parking investment opportunities.

Alternatives to Parking Investment

When considering parking investments, COTPA and the City will also need to weigh whether funds are better spent on transportation and mobility improvements than parking capacity. In many cases, the dollars spent on parking capacity can be stretched further and serve a more diverse subset of the population over a greater geographic area. When considering parking investments, COTPA and the City should also consider the following:

TRANSIT INVESTMENT	Replacing existing fleet, purchasing smaller vehicles to access more of the community, defining new routing and connectivity, and improving stops and hubs to better support the community
MOBILITY INVESTMENT	Implementing enhancements to bicycle, pedestrian, and shared mobility systems to help support better movement around the community without reliance on a single occupant vehicle
TDM INVESTMENT	Coordinating demand reduction strategies with employers, developers, and property owners by investing money into TDM elements

Draft Parking Investment Scorecard

Using these concepts, COTPA and the City could very easily create a scorecard that weighs the investment of community funds into the completion of a parking facility. The table on the following page provides an example of a scoring matrix using the predefined factors discussed previously. The scorecard tries to very simply evaluate the positives and negatives of the investment and provides a scale with which the parties can measure decisions. COTPA and the City would need to adapt this approach to better prioritize elements that are most important to community growth and development



FACTOR	LOW SCORE (0 PTS)	MEDIAN SCORE (1 PT)	HIGH SCORE (2 PTS)	SCORE
LOCATION	More than ¼ miles from destination areas	Between 1/8 and ¼ miles from destination areas	Less than 1/8 miles from destination areas	
DEMAND MITIGATION	Supports demand from associated development only	Offsets up to 100 spaces of parking deficit in adjacent developments	Offsets more than 100 spaces of parking deficit in adjacent developments	
MULTIPLE USERS	Supports demand from associated development only during one-time period (weekday, weekday night, weekend)	Supports demand two-time periods (weekday, weekday night, weekend)	Supports demand three-time periods (weekday, weekday night, weekend)	
REVENUE POTENTIAL	Does not cover operational costs	Covers operational costs with little to no excess	Covers operational costs plus surplus	
COMMUNITY/ECONOMIC GROWTH	Does not contribute to surrounding area growth	Stimulates moderate amount of surrounding growth	Stimulates significant amount of surrounding growth	
BALANCE MOBILITY/ACCESS	Does not contribute to changing mobility patterns	Contributes to marginal mobility changes (first/last mile connectivity)	Contributes to significant mobility changes (park and ride activity)	
COSTS	More than \$25,000 per space	Between \$20,000 and \$25,000 per space	Less than \$20,000 per space	
PUBLIC-PRIVATE PARTNERSHIP	Does not include a public-private component	Small number of public spaces in largely private garage	Full shared parking facility in public-private facility	
TOTAL:				

¹ COTPA and the City will need to define appropriate levels for moderate and significant development

² Costs should include construction, land acquisition, design, operations and maintenance; inclusion of these elements will change scoring structure

Based on this example scorecard, COTPA and the City could simply tally up the results of the analysis and determine the viability of the investment. The following results would drive the decision-making process:

- A score between 12 and 16 points would indicate an investment that meets the needs of the community and would serve the parking and transportation system well.
- A score between eight and 12 points would indicate a strong investment consideration, but one that should be weighed against other transportation investments before finalization.
- A score between four and eight points would indicate a weak investment consideration, unless factors can be significantly modified in the decision-making process. Transportation investments would be a smarter investment decision.
- A score below four points represents an investment that should not be considered.





District Summaries

Equal parts historic and revitalized, the Arts District is now home to a mix of artistic businesses, locally owned restaurants and much more. The western edge of the Arts District has been the epicenter of development in recent years, with the West Village anchoring that growth along a revitalized Film Row. The eastern edge of the district abuts the City Center and includes cultural destinations such as the Civic Center Music Hall, Bicentennial Park, and the Oklahoma City Museum of Art.

Perceptions of Parking

The project team conducted several early outreach efforts to define how parking and mobility are perceived in the Arts District, including focus group conversations and community surveys. Below are some of the key findings from these efforts.

Community Survey Findings: 39 Responses to the Arts District

41%

Do not find it challenging to find parking

63%

Of on-street parkers find meters easy to operate

86%

Commute by driving alone

64%

Of businesses have or provide parking

32%

Would take public transit if it was safe and reliable

46%

Find parking availability to be difficult M-F 7AM - 1PM



Focus Group Findings:

- 1** There is a need for better wayfinding to parking options in the District
- 2** Education on where to park, how to pay, and how to move around the district is critical
- 3** Promote use of alternative transportation with connectivity to streetcar and bike/ped improvements
- 4** Enforcement in the district needs to be improved
- 5** Create consistency with on-street paid parking
- 6** Reduce overall footprint of surface parking

Satisfaction with Public Parking: 6.2 out of 10

Top reasons for dissatisfaction:

1. Not enough parking where needed
2. Too expensive
3. Need better signage and wayfinding

Highest Scoring Strategies:

- 1 Improved Technology**
Improvements to payment options and wayfinding elements
- 2 Wayfinding Improvements**
Better information about where visitors can park and delineation of public parking areas
- 3 Shared Parking**
Finding existing parking to share publicly or new public parking as part of developments

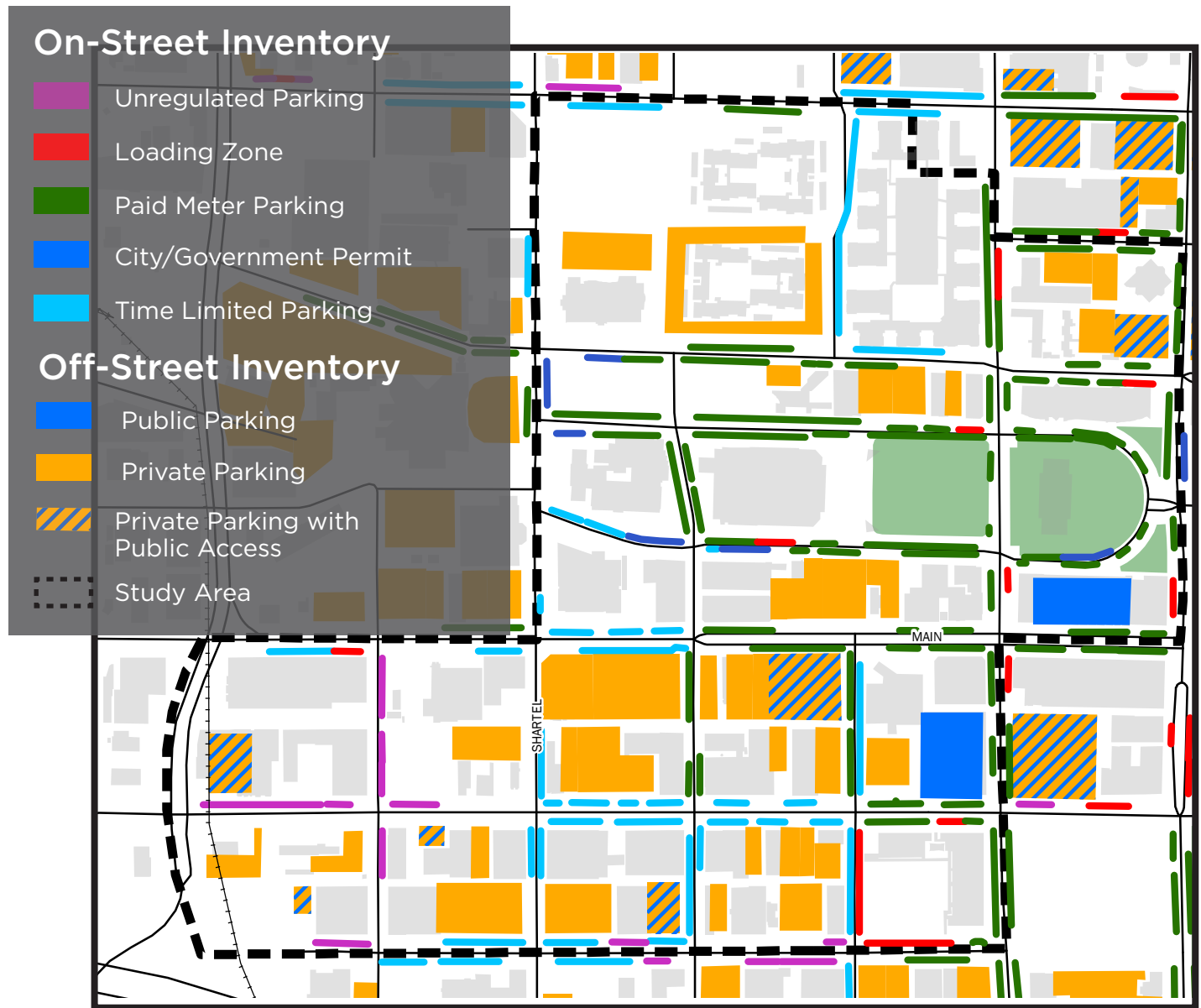
Funding Priorities:

- 1 Mobility Improvements**
Better connections between the western and eastern parts of the district
- 2 Management & Operations**
Improved enforcement and available public parking
- 3 Transit Enhancements**
Improved connectivity to streetcar

ARTS DISTRICT INVENTORY

Reality of Parking

The parking system for the Arts District was evaluated in the early phases of the project, including the overall inventory of parking and utilization of those spaces. The following sections provide a summary of the key findings of those analyses.



Category	Capacity	Peak Occupancy
Free On-Street	579	52%
Paid On-Street	412	42%
Publicly Owned Public Parking	1,946	56%
Privately Owned Public Parking	566	16%
Private Parking	1,424	47%

**Peak occupancy represents weekday mid-afternoon occupancies*

ARTS DISTRICT PEAK OCCUPANCY



ARTS DISTRICT SNAPSHOT



Just under 5,000 total spaces



Less than 1/2 of the facilities are in the target occupancy range 60 - 80%

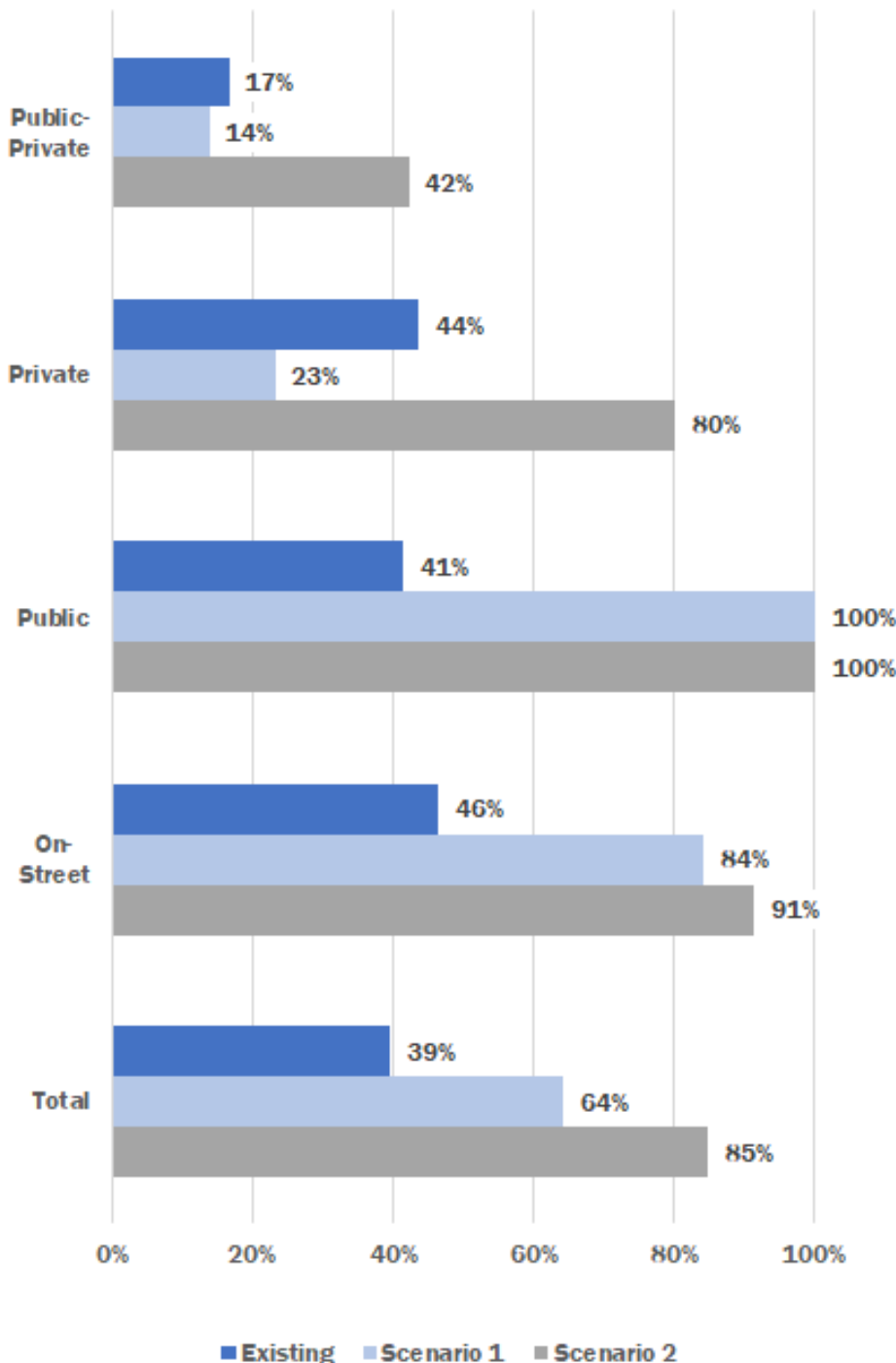


Only 20% of facilities are over 80% occupied

FUTURE DEMAND PROJECTIONS

The Park+ model was used to define future demand projections for each of the districts in Downtown Oklahoma City. Within the Arts District, the only defined project in Scenario 1 was the conversion of the old Police Headquarters into a private parking garage that would serve police and related police association activities. Scenario 2 identified a handful of vacant sites in or near the Arts District that could contribute to future demand growth. Additionally, the inclusion of projects in adjacent districts has the potential to change the current demand profile in the area. The results of this future projection are shown below.

Existing and Projected Parking Demand



Private parking utilization is expected to decrease initially with the introduction of a new police parking garage that increases private parking supply without increasing demand. However, the Scenario 2 results indicate that there will be a need to leverage private supply for public shared parking in this area by as much as 600 or 700 spaces when full build out is realized.

Public parking demands are anticipated to steadily climb in the Arts District. The existing public off-street supply (Arts District and Sheridan-Walker garages) are expected to be full during peak conditions once the potential development around the Boulevard are realized. On-street parking throughout the district could see a rapid rise in occupancy as development occurs.

Overall, the district should have plenty of parking capacity to support growth. The critical element will be the realization of shared parking, both with existing parking supply and within larger developments that require on-site supply.

*Scenario 2 includes the expected developments included in scenario 1

KEY OBSERVATIONS AND FINDINGS

Based on the perceptions evaluation, existing conditions analytics, and future projections, the following primary findings emerged for the Arts District:

The demand for on-street parking is high near development and destination areas.

The lack of clear public off-street parking in the western portions of the study area drives a desire for on-street parking. Destinations like the Civic Center rely heavily on on-street parking to satisfy demand for events.

The area would be well-served by the implementation of better wayfinding and education campaigns.

Publicly and privately owned public parking could be signed consistently to help patrons find off-street parking options to support a better balance between on-street and off-street parking spaces.

On-street parking would be better served with a consistent approach to enforcement and pricing.

Rather than have pockets of paid and unpaid parking, the area should have a more focused emphasis on paid on-street parking. In conjunction with that, enforcement efforts need to be consistently applied to manage the on-street resource and ensure parking spaces are turning over.

Future consideration should be made to the reduction of overall surface lots in the area.

Parking makes up nearly 17% of the land area in the district. A better distribution of demand into larger facilities along with reduction of vehicular demand could result in a more dense and walkable district.

Better connectivity and application of non-vehicular mobility options.

The area would be well-served with additional non-vehicular connections, including a connected system of bike lanes that can move people from the western edges into the City Center and points beyond. The recent opening of the streetcar provides a connection to areas throughout the community. There are streetcar stations within half a mile of the western edge of the study area. Creating an inviting walkable and bikeable connection between these areas could reduce the need for automobile trips inside the Downtown area.

Arts District Recommendations

The Arts District needs include a more cohesive approach to parking management, wayfinding, and connectivity. The district is well served by public parking, both on- and off-street, but the connectivity between major destinations (West Village area and Main/Walker area) creates barriers to optimal usage. In addition to the distance between parking and destinations, the area in between is primarily characterized as Oklahoma City Police Department uses, which lessens the overall walkability between locations in the district. With these challenges in place, the primary recommendations in this district include:

Shared Parking Solutions - where possible, COTPA should look for opportunities to create public parking supply within the district, especially adjacent to high-demand areas. In some cases, this could come in the form of existing private supply in the area. In other cases, this could come in the form of public-private partnerships with new development to create public supply in new private garages.

Implement Wayfinding and Branding Improvements - the publicly available parking system within the Arts District is plagued by a lack of consistent navigation and poor directional signage. Ongoing efforts to implement wayfinding improvements by the City should provide a level of directional signage that supports better vehicular navigation. Implementation of mobile payment applications throughout the City could also provide a level of static navigation to publicly available parking to support better awareness of parking. As COTPA creates public parking supply through shared parking, the introduction of additional branding for these assets should improve the awareness of available parking.

Continue to Enhance Mobility Solutions - the Arts District is directly connected to the OKC Streetcar line on its eastern side. Despite this connection, residents, employees, and visitors on the western side of the district feel disconnected from the line. Continued enhancement of cycling and walking corridors (as defined in bikewalkokc) will only serve to strengthen connections in the district. Cycling improvements, like the dedicated bike lanes found on Sheridan Avenue, will promote better connectivity across and out of the district. Introduction of micro-mobility elements like bike share will provide short trip options for patrons.

Improve Marketing and Education - COTPA should work with local stakeholders and business owners to improve education for parking through the development of simple education materials and web content related to the available parking and mobility options in the area. Simple maps that outline primary destinations, available parking, and mobility connections could help to inform existing and future area visitors.

Immediate within 1 year

- Create education materials
- Implement mobile pay application
- Improved approach to enforcement

Mid - Term 1 - 3 years

- Define initial shared parking options
- Implement wayfinding improvements
- Initial mobility investments (e.g. bike share)

Long - Term Beyond 3 years

- Expand shared parking
- Expanded mobility investments (benefit district funding)

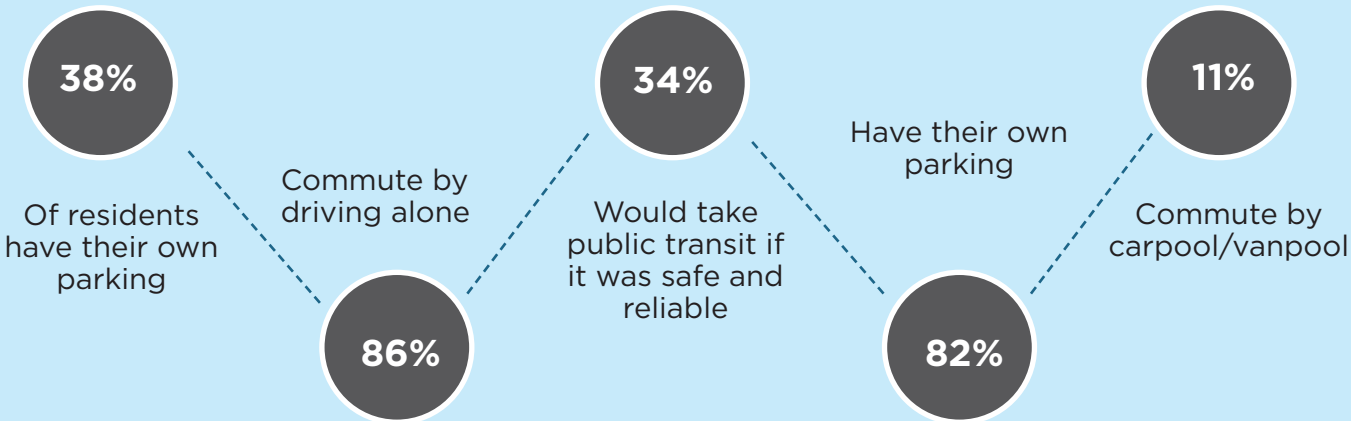


The economic heart of the Oklahoma City community, the City Center includes the highest density of office and commercial uses of all of the districts within the Downtown Oklahoma City area. The City Center has seen tremendous growth over the last few decades, including investments in residential, office, retail, and entertainment uses. The area has transformed and grown with a mixture of private investments and the City’s Metropolitan Area Projects Plan (MAPS) tax investments of the last 20 years.

Perceptions of Parking

The project team conducted several early outreach efforts to define how parking and mobility are perceived in the City Center, including focus group conversations and community surveys. Below are some of the key findings from these efforts.

Community Survey Findings: 135 Responses to City Center District



Focus Group Findings:

- 1** There is a disconnect between available parking and the perception of parking
- 2** Need better education, marketing, and wayfinding on available parking
- 3** There needs to be more consistency with parking enforcement
- 4** Improved usage of streetcar as a park and ride connection into City Center
- 5** Focus on redeveloping surface parking throughout the district
- 6** More dynamic approach to on-street parking

Satisfaction with Public Parking: 6.2 out of 10

Top reasons for dissatisfaction:

1. Too expensive
2. Not enough parking for district
3. Need more on-street parking

Highest Scoring Strategies:

- 1 Improved Technology**
Improvements to payment options and wayfinding elements
- 2 Wayfinding Improvements**
Better signage and information about where people can park in the City Center
- 3 Demand Based Pricing**
Creating price structures to balance demand on-and off-street parking

Funding Priorities:


- 1 Management/Operations**
Improved enforcement and curbside management
- 2 Mobility Improvements**
Better connectivity into the City Center
- 3 Transit Enhancements**
Improved access to alternative travel modes

CITY CENTER INVENTORY

Reality of Parking

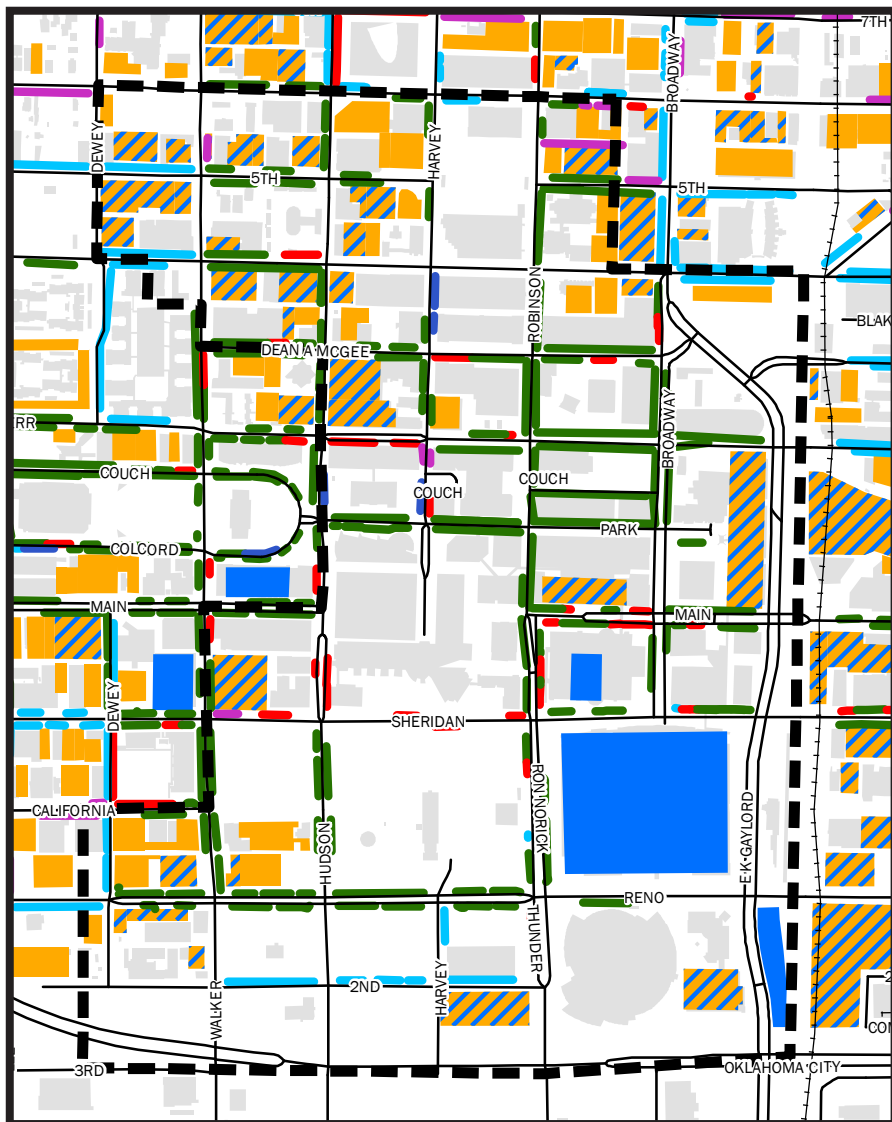
The parking system for the City Center was evaluated in the early phases of the project, including the overall inventory of parking and utilization of those spaces. The following sections provide a summary of the key findings of those analyses.

On-Street Inventory

-  Unregulated Parking
-  Loading Zone
-  Paid Meter Parking
-  City/Government Permit
-  Time Limited Parking

Off-Street Inventory

-  Public Parking
-  Private Parking
-  Private Parking with Public Access
-  Study Area



CITY CENTER SNAPSHOT



Public spaces only make up 24% of total spaces

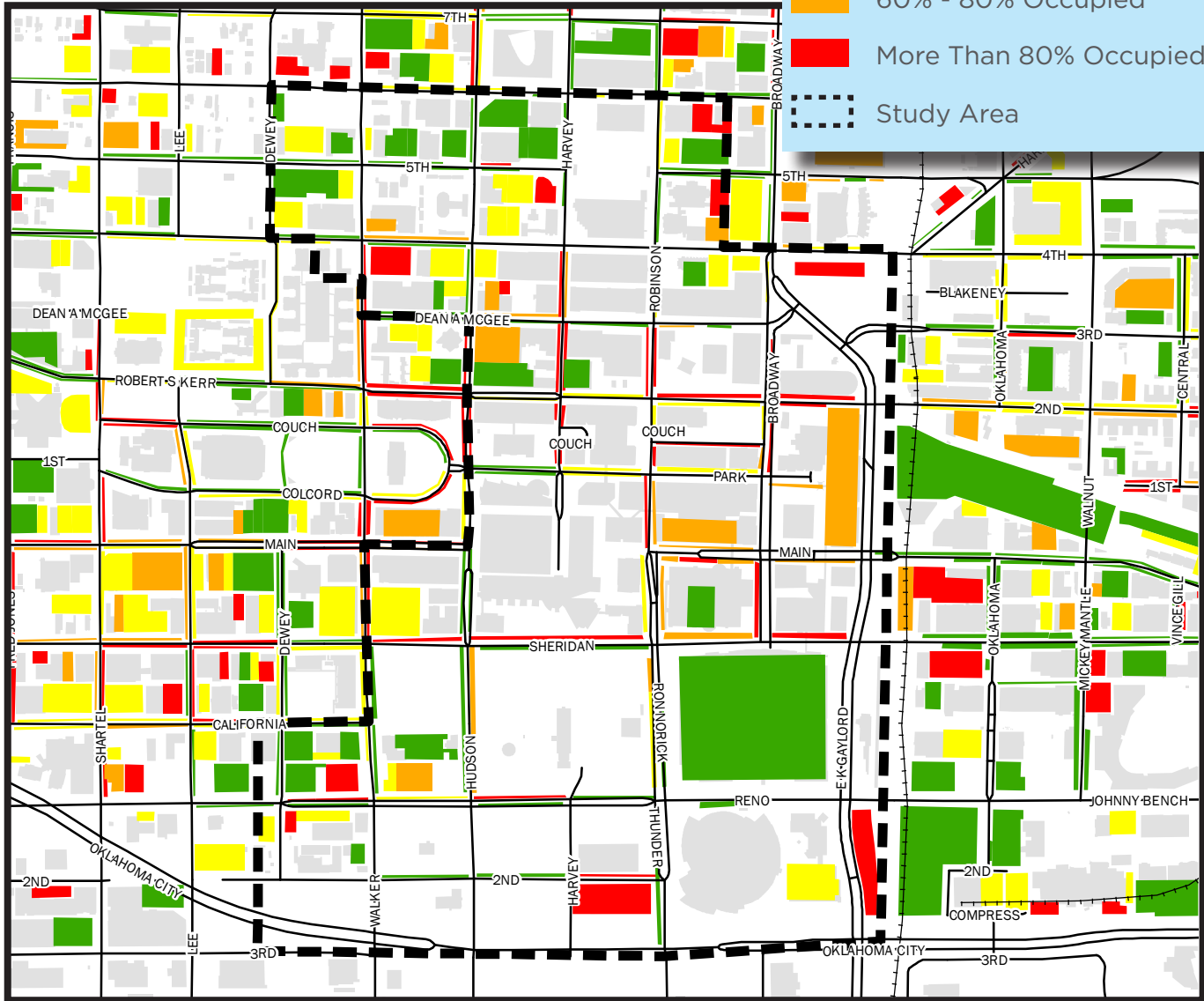
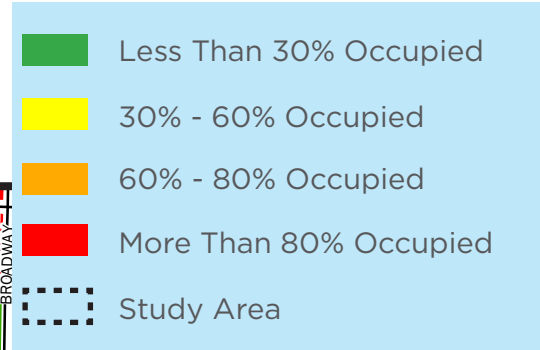


Less than 1/2 of the facilities are in the target occupancy range 60 - 80%



On-street parking crowded near activity centers

CITY CENTER PEAK OCCUPANCY



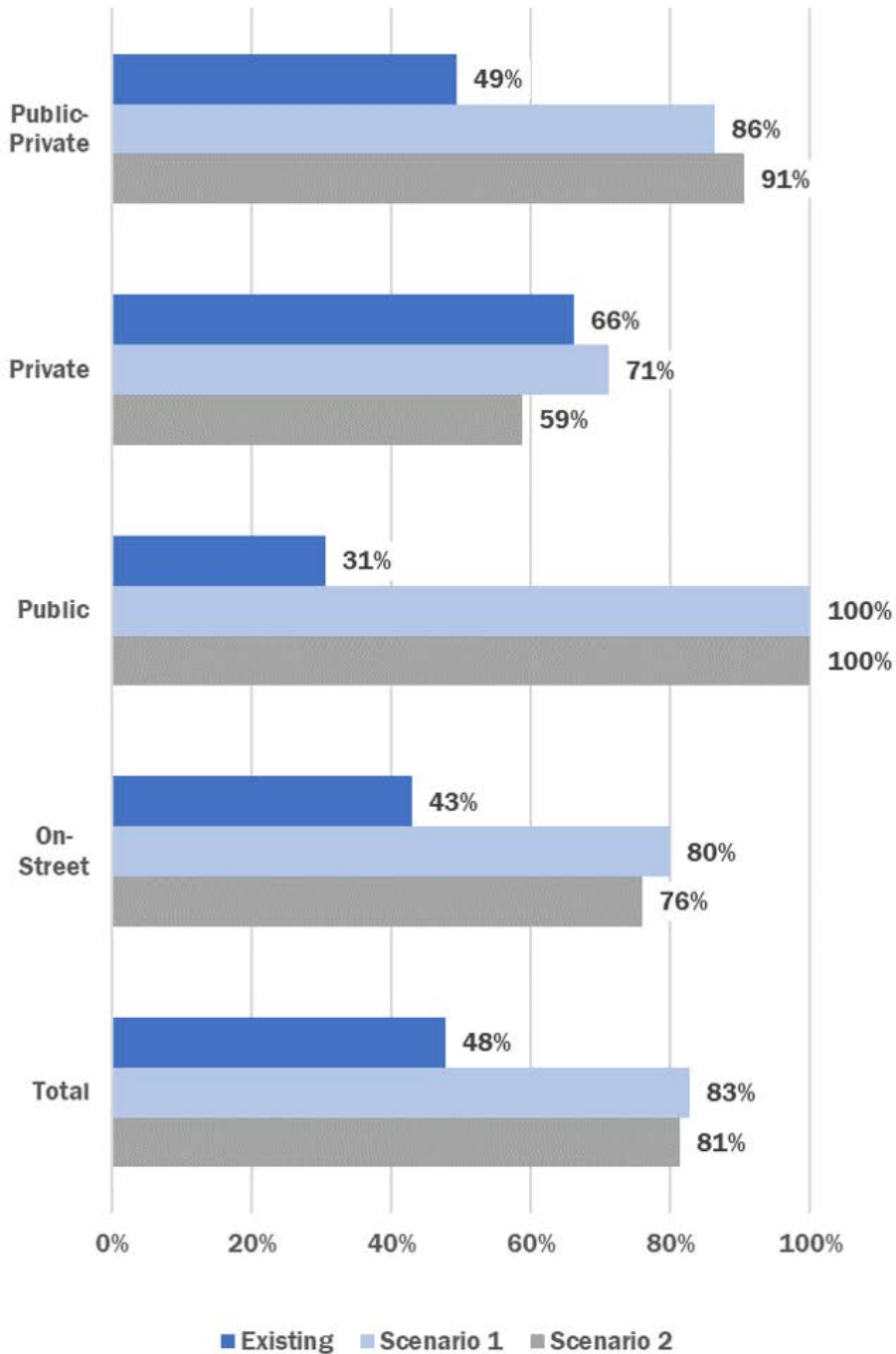
Category	Capacity	Peak Occupancy
Free On-Street	459	39%
Paid On-Street	606	57%
Publicly Owned Public Parking	1,842	32%
Private Parking	3,753	34%
Privately Owned Public Parking	1,483	52%

**Peak occupancy represents weekday mid-afternoon occupancies*

FUTURE DEMAND PROJECTIONS

The Park+ model was used to define future demand projections for each of the districts in Downtown Oklahoma City. Within the City Center, there are a number of opportunity sites (see Introduction section) in Scenario 1, primarily adjacent to the new Oklahoma City Boulevard and the existing Cox Convention Center site and the intersection of Broadway Avenue and 4th Street. There were not any vacant parcels identified for Scenario 2. Additionally, the inclusion of projects in adjacent districts has the potential to change the current demand profile in the area. The results of this future projection are shown below.

Existing and Projected Parking Demand



Private parking demands are expected to increase in the area as development occurs. Much of the increase is attributed to the introduction of shared parking associated with mega-developments near the Boulevard and Convention Center sites, as well as leveraging underutilized private parking throughout the district as the proposed shared parking program is implemented.

Public parking demands are anticipated to reach capacity in the City Center with the introduction of development around the Boulevard. The existing public off-street supply are expected to be full during peak conditions once potential developments are realized. On-street parking throughout the district could see a rapid rise in occupancy as development occurs.

City Center should have plenty of supply today and into the future. Many of the mega-development projects in the southern portion of the study area will require on-site parking, which should be shared. Adding demand-based pricing and shared parking should balance usage.

*Scenario 2 includes the expected developments included in Scenario 1

KEY OBSERVATIONS AND FINDINGS

Based on the perceptions evaluation, existing conditions analytics, and future projections, the following primary findings emerged for the City Center:

The demand for on-street parking is high near development and destination areas.

Despite having the highest amount of public off-street parking in the Downtown area, the City Center on-street parking is in high demand and would be well-served by a more advanced application of policy and pricing.

Off-street parking is underutilized.

Off-street parking assets, especially private, are underutilized during peak conditions. This is likely a reflection of overbuilt parking supply combined with the changing transportation paradigm in Downtown.

On-street parking would be better served with a consistent approach to enforcement.

Enforcement efforts need to be consistently applied to manage the on-street resource and ensure parking spaces are turning over.

Dynamic curb management is necessary.

The City Center is a dynamic environment with multiple users and needs throughout the day. Curb access needs to cater to dynamic needs during the day, including commercial and passenger loading, micromobility, and transit uses. Curb practice and policy in the City Center needs to be data-driven to support ever-changing needs.



City Center Recommendations

The City Center has the highest amount of parking capacity in the Downtown Oklahoma City area, yet there is still a desire for more parking from stakeholders. Much of this perception comes from a high concentration of parking demand in core areas, lack of knowledge of available parking and a desire to park as close to the end destination as possible. With some application of advanced parking management strategies, the area could see a shift to a more balanced parking system. With these opportunities in place, the primary recommendations in this district include:

Balance On-Street and Off-Street Demands – currently, the highest demand for parking in the area is found on-street adjacent to the most popular destinations. COTPA and the City should encourage a more balanced approach to parking demand allocation through demand-driven pricing. On-street prices should be set higher than off-street prices to encourage parkers to utilize COTPA’s parking garages.

Improve Enforcement – the approach to parking enforcement needs to be improved to ensure proper turnover of parking spaces and more efficient use of on-street parking assets. This improved enforcement includes increasing the number of hours that enforcement officers are working their routes, leveraging higher end technology (LPR) to improve operations, and creating a customer-centric approach to enforcement that improves education and understanding of the system.

Improve Mobility Offerings – moving into and around the City Center would be improved by creating more realistic and functional transportation modes. This includes leveraging shared mobility options, introducing more bike share opportunities, and implementing recommendations from bikewalkokc.

Consider Public-Private Partnerships – as mega-development around the Boulevard and the existing Cox Convention Center occurs, COTPA and the City should look for opportunities to partner on public-private partnerships to ensure that new parking that is built will be available to support the shared parking system.

Immediate within 1 year

- Improved approach to enforcement
- Raise on-street rates in high demand areas
- Implement mobile pay application

Mid - Term 1 - 3 years

- Define opportunities for shared parking
- Implement wayfinding improvements
- Improve mobility offerings

Long - Term Beyond 3 years

- Expand shared parking
- Consider public-private partnerships



Much like Automobile Alley to the east, the Midtown district is the site of ongoing development and growth. The areas around the Classen, Walker, 10th Street and Harvey corridors are all emerging as nightlife and retail destinations. And the combination of residential, office, and other mixed uses provides a varied mix of activity in the northwest corner of Downtown Oklahoma City. Midtown maintains a historic culture with preserved architecture, while also becoming a reflection of a new, diverse local character.

Perceptions of Parking

The project team conducted several early outreach efforts to define how parking and mobility are perceived in Midtown, including focus group conversations and community surveys. Below are some of the key findings from these efforts.

Community Survey Findings: 61 Responses to Midtown District



Live in the district



Walk



Work or own a business



Are dropped off



Are visitors



Take Transit



Use some form of non-SOV travel



Bicycle

Focus Group Findings:

- 1** Desire for more public parking in the area to support growth
- 2** Interest in paid parking and demand-based pricing structure
- 3** Improve safety and curb lane management by traffic calming
- 4** Better enforcement of on-street parking
- 5** Improve wayfinding and branding of parking assets
- 6** Consider parking benefit districts

Satisfaction with Public Parking: 6 out of 10

Top reasons for dissatisfaction:

1. Not enough parking where needed
2. Not enough parking for district needs
3. Not enough public parking

Highest Scoring Strategies:

- 1** **Benefit Districts**
Creation of collaborative parking management with district reinvestment
- 2** **Shared Parking**
Establish new public parking through shared agreements between COTPA and private sector
- 3** **Improved Technology**
Improvements to payment options and wayfinding elements

Funding Priorities:

- 1** **Management/Operations**
Improve enforcement, paid parking, and curbside operations
- 2** **Parking Capacity**
Creation of shared parking capacity to support growth
- 3** **Mobility Improvements**
Better connectivity into and around the district

MIDTOWN INVENTORY


Reality of Parking

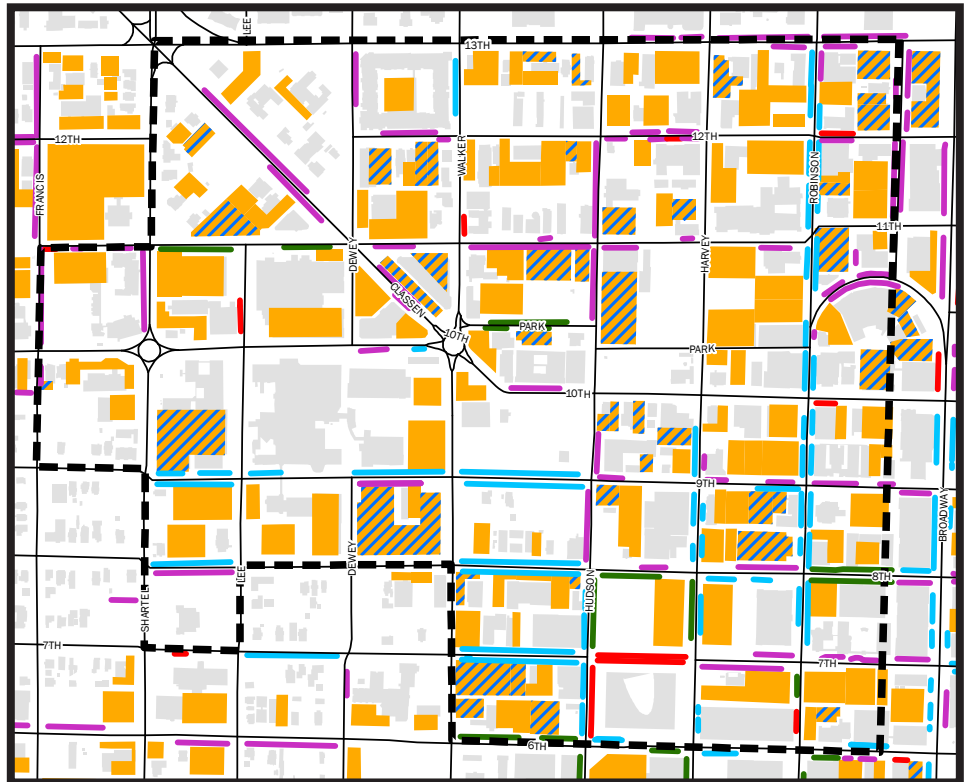
The parking system for Midtown was evaluated in the early phases of the project, including the overall inventory of parking and utilization of those spaces. The following sections provide a summary of the key findings of those analyses.

On-Street Inventory

-  Unregulated Parking
-  Loading Zone
-  Paid Meter Parking
-  City/Government Permit
-  Time Limited Parking

Off-Street Inventory

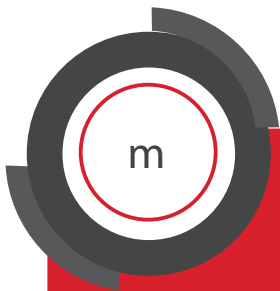
-  Public Parking
-  Private Parking
-  Private Parking with Public Access
-  Study Area



Category	Capacity	Peak Occupancy
Free On-Street	1,183	50%
Paid On-Street	126	49%
Publicly Owned Public Parking	0	N/A
Privately Owned Public Parking	5,681	40%
Private Parking	2,386	31%

**Peak occupancy represents weekday mid-afternoon occupancies*

MIDTOWN PEAK OCCUPANCY



MIDTOWN SNAPSHOT:



Public spaces only make up 14% of total spaces



Less than 1/2 of the facilities are in the target occupancy range 60 - 80%

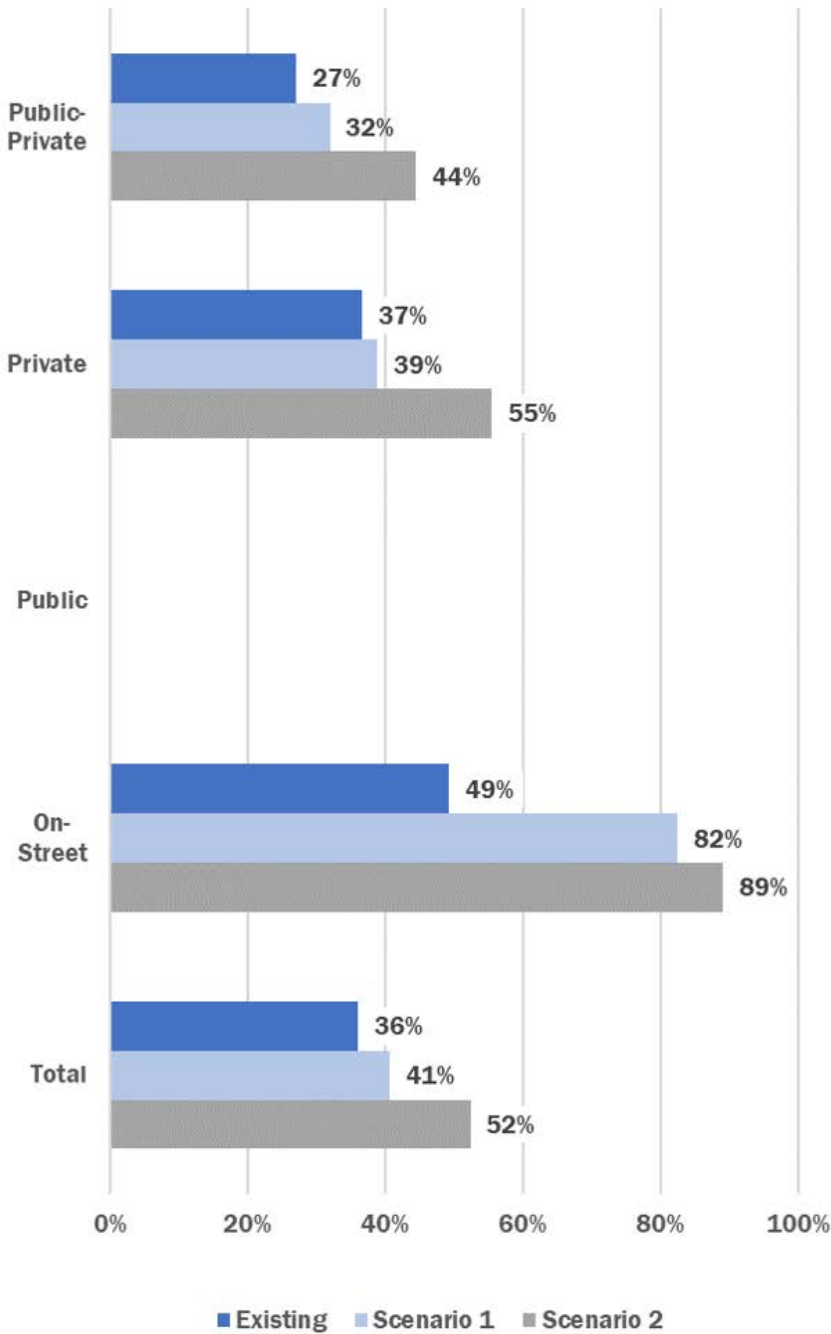


High occupancy around commercial corridors Classen and Harvey

FUTURE DEMAND PROJECTIONS

The Park+ model was used to define future demand projections for each of the districts in Downtown Oklahoma City. Within Midtown, the only defined project in Scenario 1 was the Villa Teresa site at the intersection of Classen and 13th Street. Scenario 2 identified a handful of vacant sites in or near Midtown (see Introduction section) that could contribute to future demand growth. Additionally, the inclusion of projects in adjacent districts has the potential to change the current demand profile in the area. The results of this future projection are shown below.

Existing and Projected Parking Demand



Private parking demands are expected to slowly increase with the introduction of new development. The increase between Scenarios 1 and 2 is the conversion of some of those private assets to shared public parking assets. This helps to improve performance of the overall system, while minimizing investment in new public parking capacity.

On-street parking demand is the only form of public parking in Midtown. It is expected to see a large increase in demand from today's conditions to completion of projects in Scenario 1. Implementing paid parking and improved enforcement help to manage overall on-street demands.

Midtown has a very large supply of parking overall and should sustain the projected growth with a combination of public shared parking, advanced on-street management, and public-private partnerships.

*Scenario 2 includes the expected developments included in Scenario 1

KEY OBSERVATIONS AND FINDINGS

Based on the perceptions evaluation, existing conditions analytics, and future projections, the following primary findings emerged for Midtown:

Desire for more parking capacity.

The growing district has parking constraints in some of its higher demand areas. The introduction of shared off-street parking capacity and on-street parking spaces would solve capacity constraints and help to support business and area growth.

Paid parking on-street could help to balance demands and support turnover.

Stakeholders – including business owners, residents, and visitors – all expressed a desire for better managed curb parking, including the application of paid parking in areas. This could help to improve availability of spaces and balance demands between on-street and off-street parking.

On-street parking would be better served with a consistent approach to enforcement.

Enforcement efforts need to be consistently applied to manage the on-street resource and ensure parking spaces are turning over.

Better connectivity and application of non-vehicular mobility options.

The area would be well-served with additional non-vehicular connections, including a connected system of bike lanes that can move people from the district into the City Center and points beyond. The recent opening of the streetcar provides a connection to areas throughout the community. The streetcar connects directly through the heart of this district. Creating an inviting walkable and bikeable connection to the stations could reduce auto demand and balance access into and around the area.



Midtown Recommendations

Midtown, one of the largest of the Downtown Oklahoma City districts, could use a combination of advanced parking management and mobility strategies to help balance parking demands. Currently, demands are highest near popular destinations, while available parking capacity is abundant a few blocks away. Implementing combinations of on-street parking management, shared parking, and advanced mobility investments could help to better distribute demands and support a more efficient parking and transportation system. The primary recommendations for Midtown include:

Implement Paid Parking – COTPA and the City should implement paid parking throughout Midtown, especially in areas with high activity. Coupled with a community-wide improved approach to enforcement, this strategy should promote better turnover of on-street spaces and improve access to businesses.

Consider Evening Paid Parking and Enforcement – COTPA and the City should consider non-traditional enforcement and paid parking hours in the area to account for the higher evening activity in many parts of Midtown. This would include charging and enforcing for parking until 8pm or 10pm, based on needs in the area. This implementation should help to promote turnover of parking spaces when businesses need it most.

Shared Parking Solutions – where possible, COTPA should look for opportunities to create public parking supply within the district, especially in areas with high activity. There are a number of private parking areas that were underutilized during the evaluation periods in this study. COTPA should partner with private property owners or parking operators to leverage these assets for shared public parking supply.

Continue to Enhance Mobility Solutions – the OKC Streetcar directly connects Midtown with the other districts throughout Downtown Oklahoma City. Building off of this investment, the City, COTPA, and Embark should focus on providing additional mobility enhancements such as Spokies bikeshare and shared mobility solutions to promote alternative means of moving around the Midtown district. Partnerships with shared mobility providers to incentivize use could help to shift the way people move around this district.

Consider a Parking Benefit District – throughout the life of this study, stakeholders indicated an interest in implementing parking benefit districts, where excess parking revenues are reinvested into the area. After an evaluation as part of this study (see the Policy section), the best configuration for a benefit district is likely community-wide rather than for individual districts.

Immediate within 1 year

- Implement paid parking
- Implement mobile pay application
- Improved approach to enforcement

Mid - Term 1 - 3 years

- Consider evening paid parking/enforcement
- Define initial shared parking options

Long - Term Beyond 3 years

- Expand shared parking
- Expanded mobility investments (benefit district funding)



One of the rapidly evolving districts in Downtown Oklahoma City, Automobile Alley is seeing high levels of investment in redevelopment and new development, especially in and around the Broadway corridor. The district was originally home to the City's car dealerships, still immortalized in the neon signs that represent the historic past in this district. The area's many uses are growing and a need for a more purposeful and intense approach to parking management is especially relevant here.

Perceptions of Parking

The project team conducted several early outreach efforts to define how parking and mobility are perceived in Automobile Alley, including focus group conversations and community surveys. Below are some of the key findings from these efforts.

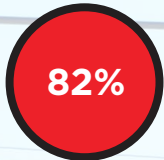
Community Survey Findings: 39 Responses to Auto Alley District



Live in the district



Are dropped off



Work or own a business



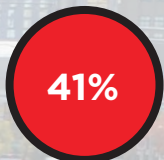
Take Transit



Are visitors



Bicycle



Walk

Focus Group Findings:

1

Strong desire for more public parking

2

Enforcement needs to improve to help street spaces turn over throughout the day

3

Education about streetcar to improve connectivity into the district

4

Improve pedestrian and cyclist safety, especially along the Broadway corridor

5

Implement paid on-street parking to improve turn over

6

Consider parking benefit districts

Satisfaction with Public Parking: 5.9 out of 10

Top reasons for dissatisfaction:

1. Not enough parking where needed
2. Need better signage and wayfinding
3. Not enough parking for district needs

Highest Scoring Strategies:

1

Benefit District

Creation of collaborative parking management with district reinvestment

2

Shared Parking

Establish new public parking through shared agreements between COTPA and private sector

3

Mobility Enhancement

Improvements to Broadway Avenue corridor to promote multimodal access

Funding Priorities:

1

Mobility Enhancement

Better connectivity and improvements to ped/bike safety

2

Management/Operations

Improved enforcement, paid parking, and curbside operations

3

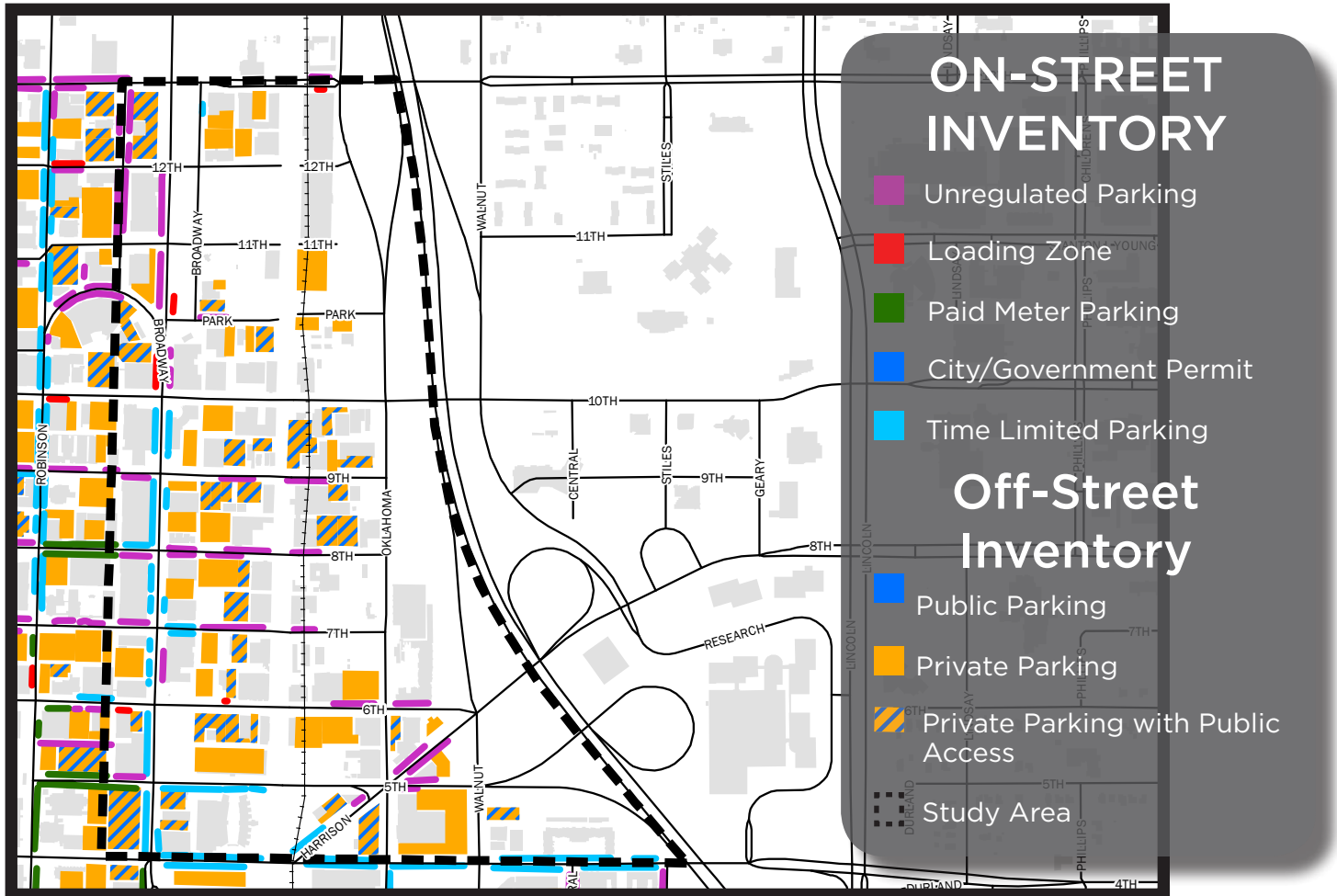
Parking Capacity

Creation of shared parking capacity to support growth

AUTOMOBILE ALLEY INVENTORY

Reality of Parking

The parking system for the Automobile Alley was evaluated in the early phases of the project, including the overall inventory of parking and utilization of those spaces. The following sections provide a summary of the key findings of those analyses.



Category	Capacity	Peak Occupancy
Free On-Street	540	54%
Paid On-Street	4	50%
Publicly Owned Public Parking	0	N/A
Privately Owned Public Parking	1,337	50%
Private Parking	1,097	41%

**Peak occupancy represents weekday mid-afternoon occupancies*

AUTOMOBILE ALLEY PEAK OCCUPANCY



AUTOMOBILE ALLEY SNAPSHOT



Public spaces only make up 18% of total spaces



Less than 1/2 of the facilities are in the target occupancy range 60 - 80%

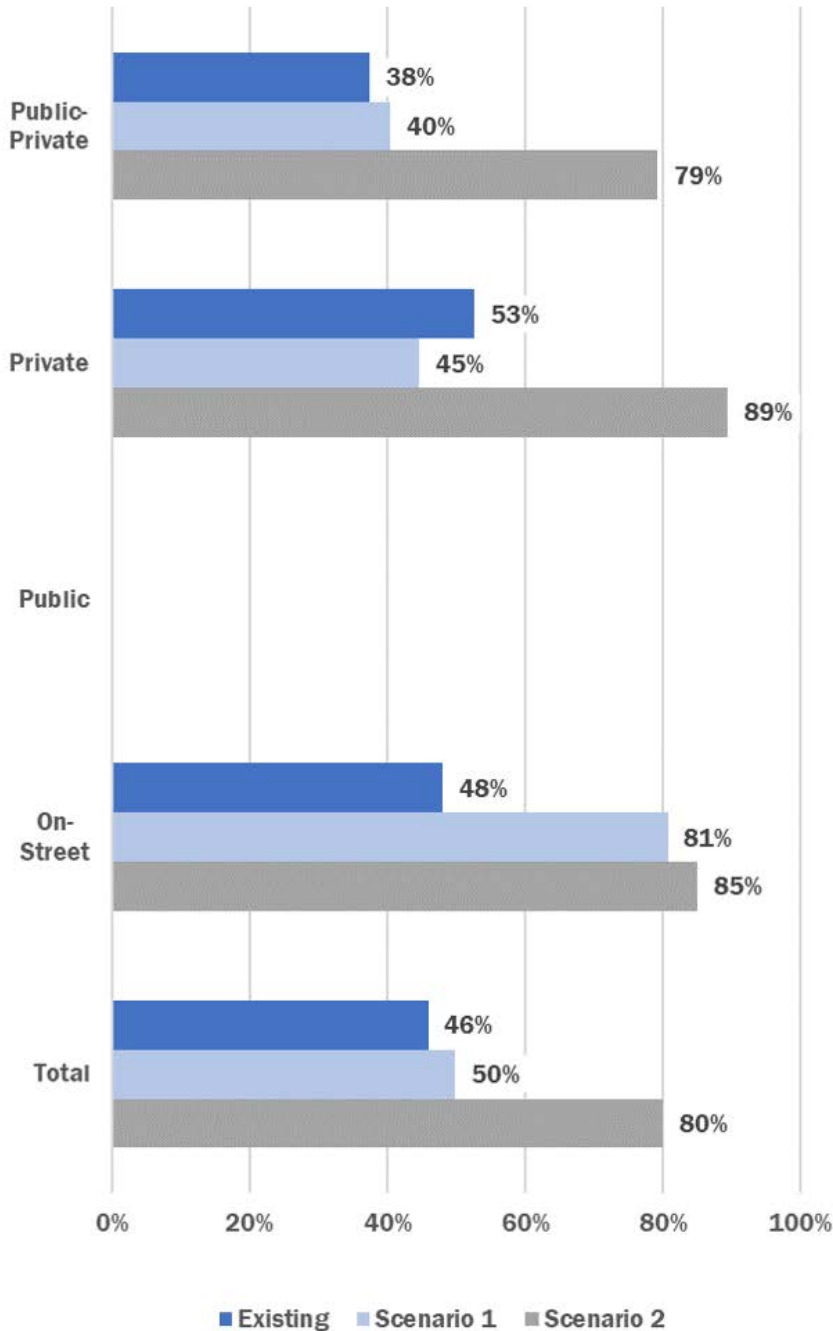


On-street parking crowded near activity centers

FUTURE DEMAND PROJECTIONS

The Park+ model was used to define future demand projections for each of the districts in Downtown Oklahoma City. Within Automobile Alley, there were a handful of Scenario 1 projects (see Introduction section), primarily around Broadway Avenue. Scenario 2 identified a handful of vacant sites on the eastern side of the district that could contribute to future demand growth. Additionally, the inclusion of projects in adjacent districts has the potential to change the current demand profile in the area. The results of this future projection are shown below.

Existing and Projected Parking Demand



Private parking demands grow slightly with the inclusion of Scenario 1 projects but expand greatly with the introduction of Scenario 2 projects. This is due to a loss of parking spaces in Scenario 2 and conversion of private spaces to shared parking to support the area’s growth projections.

On-street parking demand is the only form of public parking in Automobile Alley. It is expected to see a large increase in demand from today’s conditions to completion of projects in Scenario 1. Scenario 2 only slightly increases demand due to a higher reliance on private and shared parking.

Automobile Alley will need to rely on the creation of shared parking from private parking assets to realize the growth projected in the area. A robust shared parking system, in addition to paid on-street parking should efficiently manage access and demands.

*Scenario 2 includes the expected developments included in Scenario 1

KEY OBSERVATIONS AND FINDINGS

Based on the perceptions evaluation, existing conditions analytics, and future projections, the following primary findings emerged for Automobile Alley:

High on-street parking demands.

Along Broadway and adjacent side streets, there is a high demand for on-street parking. The introduction of paid parking on-street could influence balance between on- and off-street parking assets.

There is high demand for parking in public facilities.

While there are no City-owned public parking facilities in the area, the public parking provided by the private sector is highly utilized near the Broadway corridor and other high demand destination areas.

The area would be well-served by the implementation of shared public parking options.

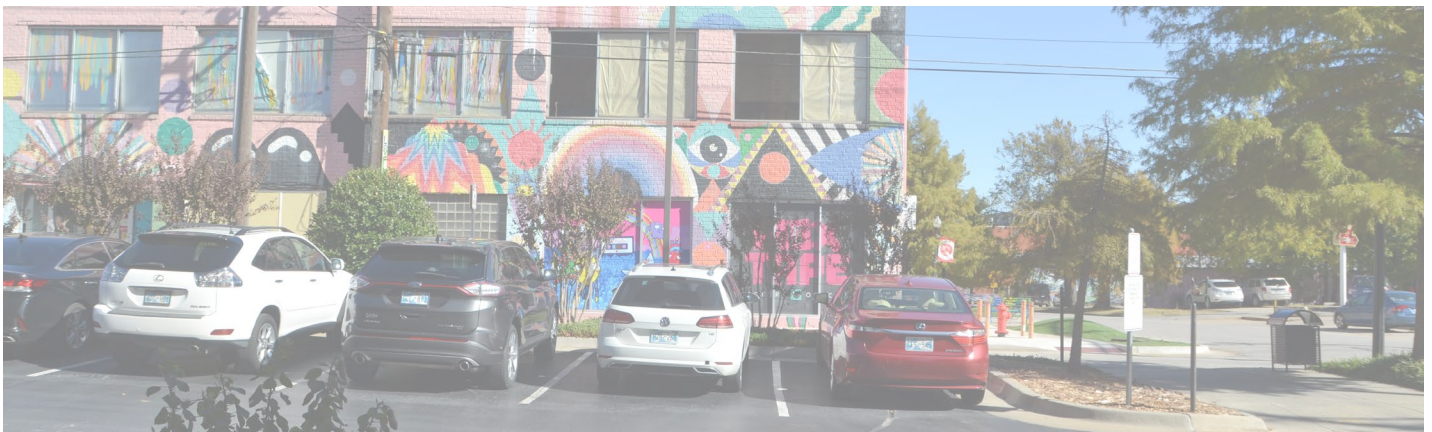
Because of the high demand for public parking in key areas, the implementation of shared public parking options in currently underutilized private parking facilities would provide an ideal increase in capacity.

On-street parking would be better served with a consistent approach to enforcement.

Enforcement efforts need to be consistently applied to manage the on-street resource and ensure parking spaces are turning over.

Pedestrian and mobility improvements are needed on and around the Broadway corridor.

The street configuration on the Broadway Corridor is not conducive to safe and efficient pedestrian movements. Alternative configurations should be considered to calm traffic, improve pedestrian/cyclist access, and increase parking supply.



Automobile Alley Recommendations

The Automobile Alley area needs advanced parking management to help support ongoing and future growth. As the area around Broadway Avenue continues to grow and thrive, and the adjacent areas see new investment in residential and commercial use, there will be an acute need to create new public parking supply and promote more efficient use of the parking system. The creation of new public supply should come in the form of converting underutilized private parking assets into shared parking supply. Bringing this all together, the parking system should work hand in hand with the adjacent bicycle and pedestrian system to support efficient and safe movement of people. The primary recommendations for Automobile Alley include:

Shared Parking Solutions – where possible, COTPA should look for opportunities to create public parking supply within the district, within reasonable walking distance of the Broadway Avenue corridor. There are a number of private parking areas that were underutilized during the evaluation periods in this study. COTPA should partner with private property owners or parking operators to leverage these assets for shared public parking supply.

Implement Paid Parking – COTPA and the City should implement paid parking along Broadway Avenue and the adjacent side streets to promote a more efficient use of the parking system. Coupled with a community-wide improved approach to enforcement, this strategy should promote better turnover of on-street spaces and improve access to businesses.

Improve Parking and Mobility Efforts on Broadway Corridor – the City, COTPA, and DowntownOKC should partner to evaluate corridor changes along Broadway Avenue, including roadway and parking configurations, bicycle and pedestrian improvements, safety enhancements, and overall corridor aesthetics.

Consider a Parking Benefit District – throughout the life of this study, stakeholders indicated an interest in implementing parking benefit districts, where excess parking revenues are reinvested into the area. After an evaluation as part of this study (see the Policy section), the best configuration for a benefit district is likely community-wide rather than for individual districts.

Immediate within 1 year

- Implement paid parking
- Improved approach to enforcement
- Define initial shared parking opportunities

Mid - Term 1 - 3 years

- Implement parking and mobility improvements
- Expand shared parking

Long - Term Beyond 3 years

- Expanded mobility investments (benefit district funding)
- Expand paid parking as needed

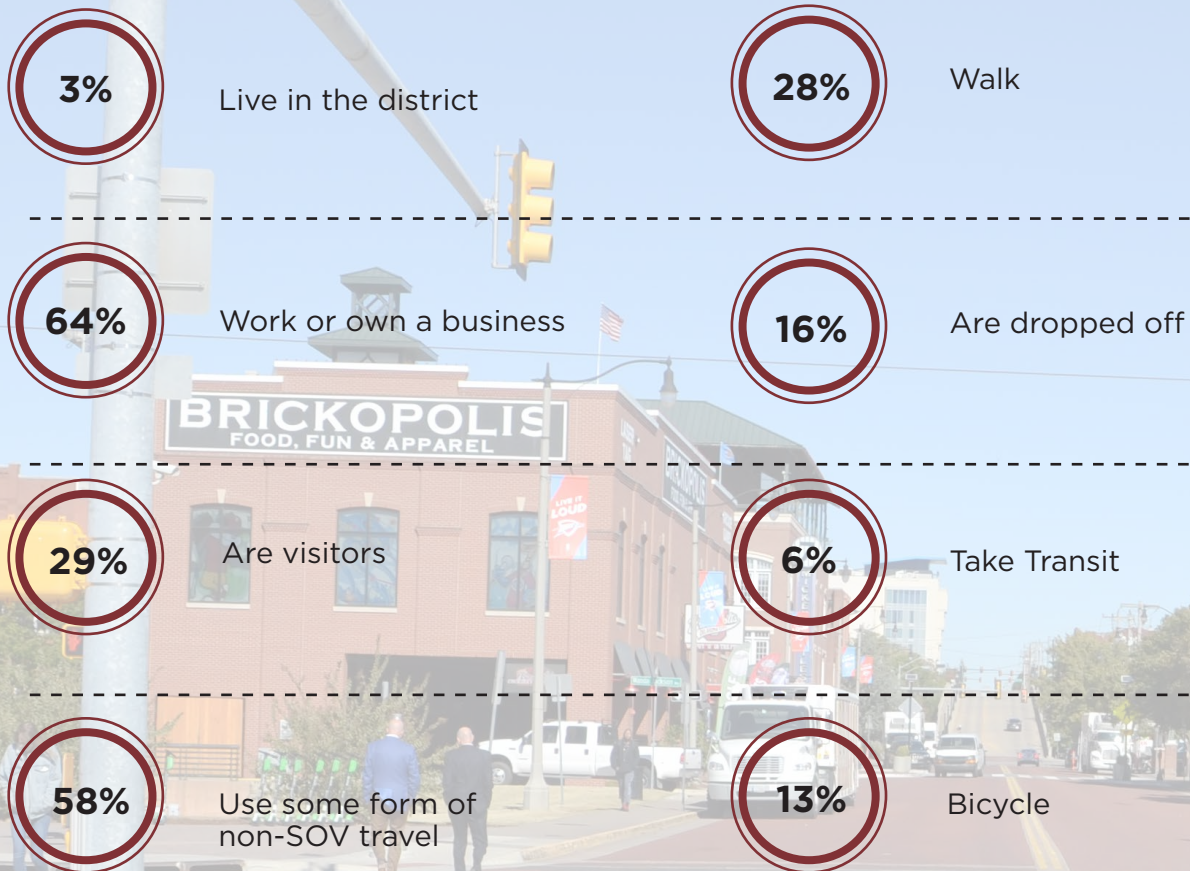


Bricktown has been the catalyst for a growing Downtown Oklahoma City for many years now. The area – once a warehouse district – has transformed over the last twenty years to include a thriving mixture of restaurant, retail, and nightlife amenities. The area includes multiple destination sites, including music venues and the community’s minor league baseball stadium. Because of these attractions, the district has been a destination for locals and visitors for many years.

Perceptions of Parking

The project team conducted several early outreach efforts to define how parking and mobility are perceived in Bricktown, including focus group conversations and community surveys. Below are some of the key findings from these efforts.

Community Survey Findings: 69 Responses to Bricktown District



Focus Group Findings:

- 1** Better coordination between typical and event parking needs
- 2** Improve usage of streetcar into district, especially during special events
- 3** Demand-based pricing and policies needed to improve parking management
- 4** Parking needs to be managed/enforced into the evening and weekends
- 5** Consider reducing new parking with developments
- 6** Consider a shared parking program

Satisfaction with Public Parking: 4 out of 10

Top reasons for dissatisfaction:

1. Too expensive
2. Not enough parking where needed
3. Not enough parking for district needs

Highest Scoring Strategies:

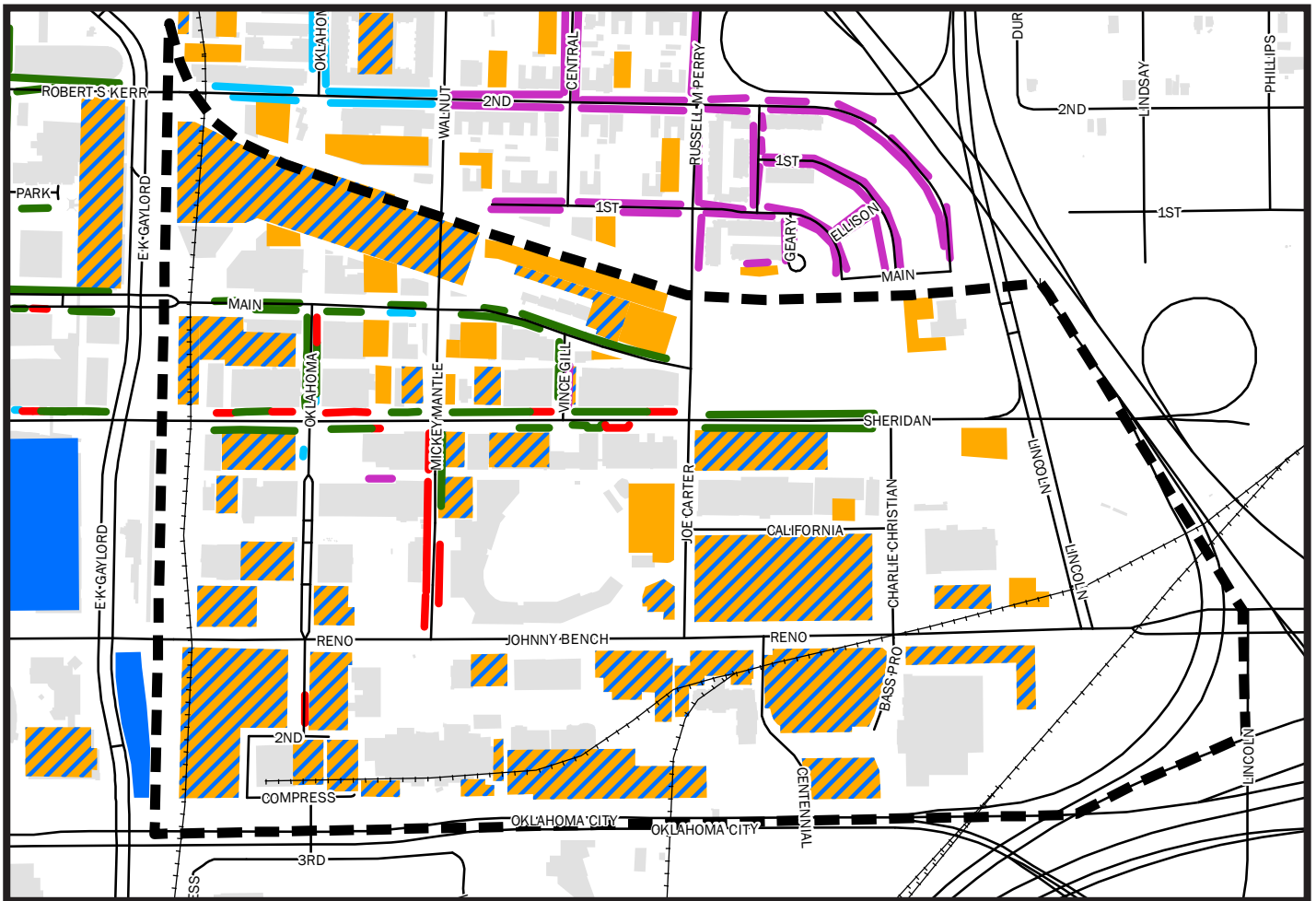
- 1 Demand-Based Pricing**
Creating price structures to balance demand on- and off-street parking
- 2 Improved Technology**
Improvements to payment options and wayfinding elements
- 3 Shared Parking**
Creating better collaboration between public, private, and event-based parking assets

Funding Priorities:

- 1 Mobility Improvements**
Creating better connectivity within and into the districts to promote a park once environment
- 2 Transit Enhancements**
Leveraging streetcar investments to promote alternative access patterns
- 3 Management/Operations**
Improve enforcement in the area to promote turnover

BRICKTOWN INVENTORY

The parking system for Bricktown was evaluated in the early phases of the project, including the overall inventory of parking and utilization of those spaces. The following sections provide a summary of the key findings of those analyses.



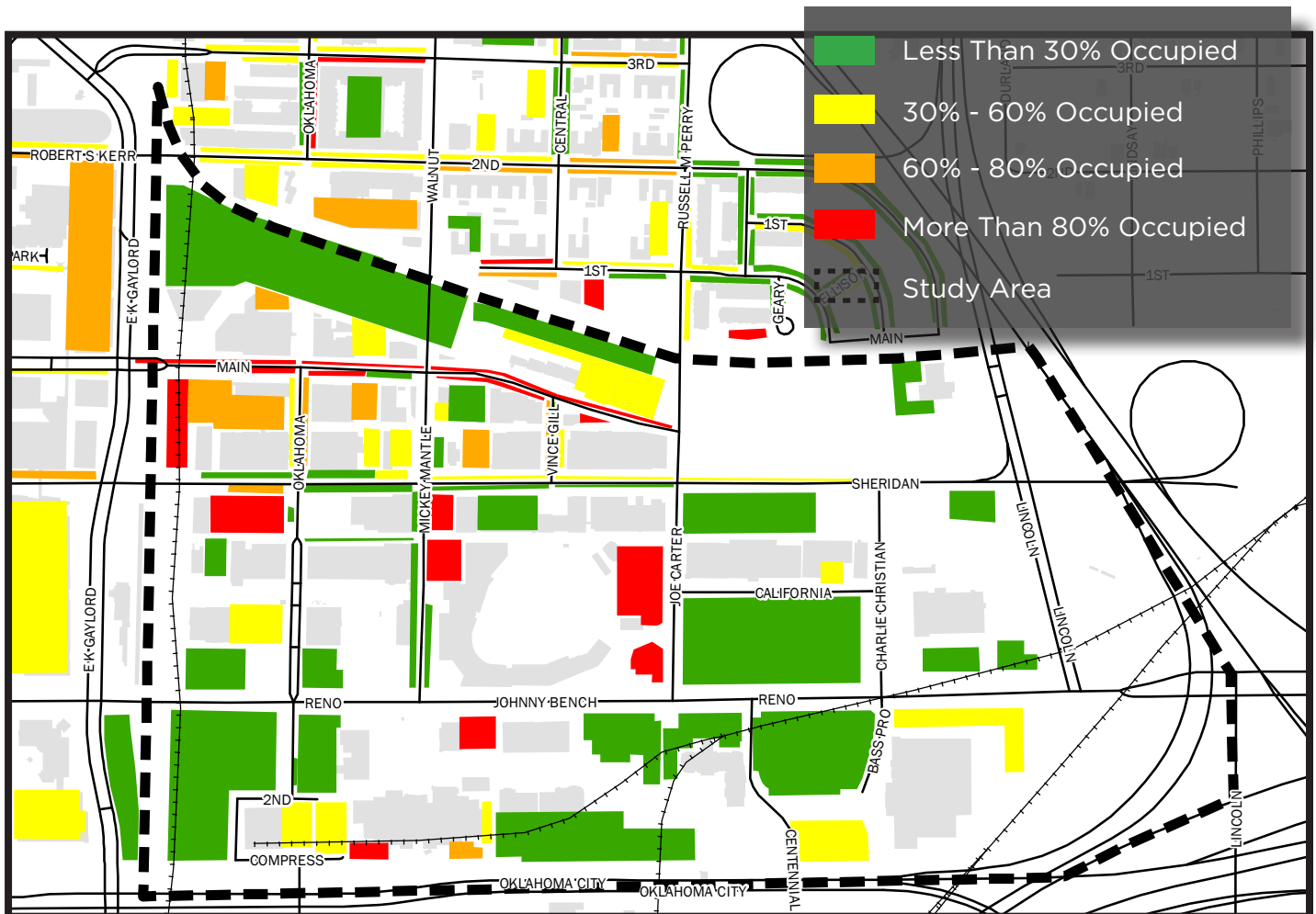
On-Street Inventory

- Unregulated Parking
- Loading Zone
- Paid Meter Parking
- City/Government Permit
- Time Limited Parking

Off-Street Inventory

- Public Parking
- Private Parking
- Private Parking with Public Access
- Study Area

BRICKTOWN PEAK OCCUPANCY



Category	Capacity	Peak Occupancy
Free On-Street	179	28%
Paid On-Street	116	69%
Publicly Owned Public Parking	0	N/A
Privately Owned Public Parking	5,020	45%
Private Parking	1,463	17%

* Peak occupancy represents weekday evening occupancies.



Public spaces only make up 5% of total spaces



Less than 1/2 of the facilities are in the target occupancy range 60 - 80%



During non-event periods, more than half of facilities are below 30% occupied

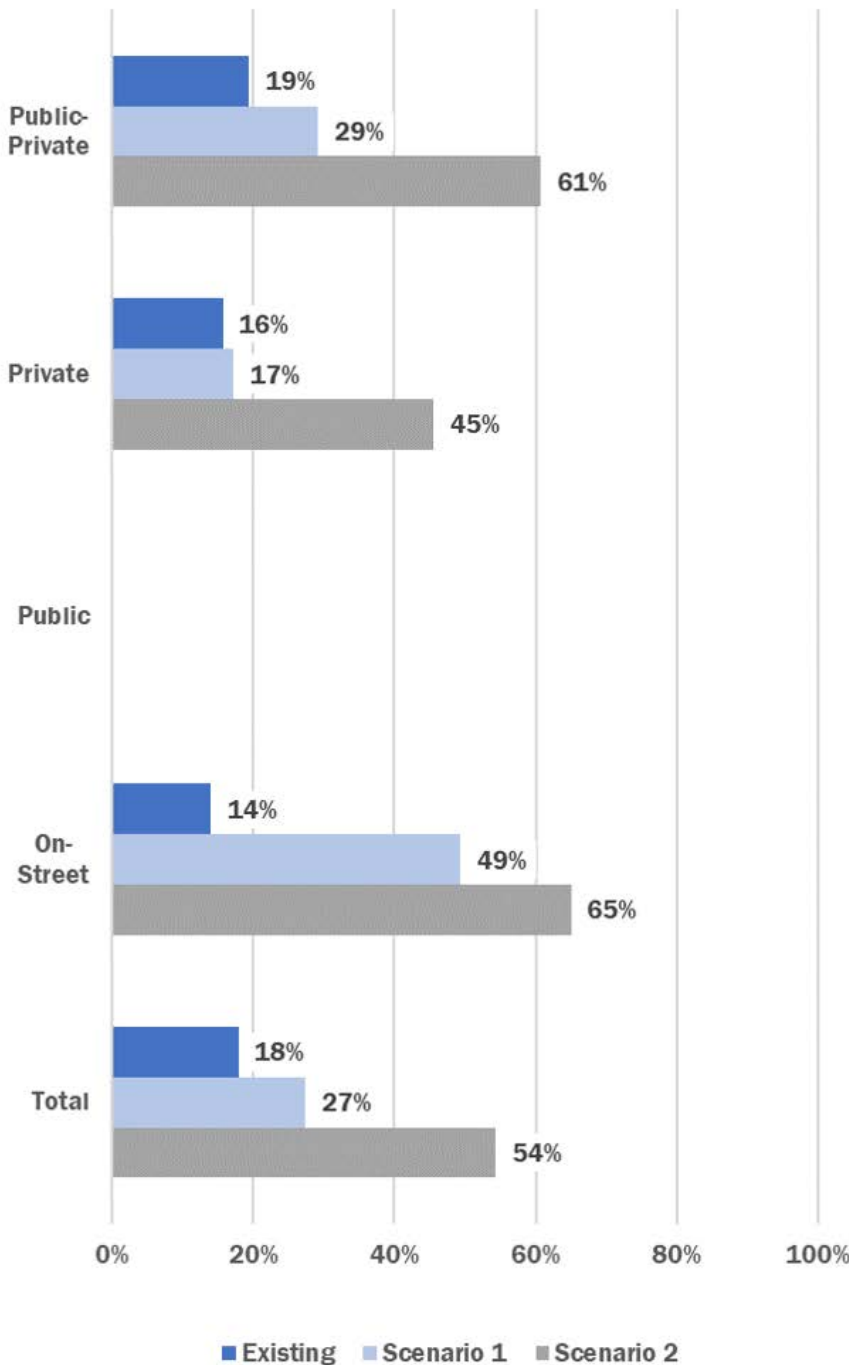
BRICKTOWN SNAPSHOT



FUTURE DEMAND PROJECTIONS

The Park+ model was used to define future demand projections for each of the districts in Downtown Oklahoma City. Within Bricktown, there were very few committed project sites (see Introduction section). Scenario 2 identified a handful of vacant sites in or near Bricktown that could contribute to future demand growth. Additionally, the inclusion of projects in adjacent districts has the potential to change the current demand profile in the area. The results of this future projection are shown below.

Existing and Projected Parking Demand



Private parking demands are expected to slowly increase with the introduction of new development in Scenario 1. A larger increase in Scenario 2 accounts for development of vacant areas and increasing reliance on public shared parking throughout the area, converting private spaces into shared public supply.

On-street parking demand is the only form of public parking in Bricktown. It is expected to see a large increase in demand from today's conditions to completion of projects in Scenario 1 and 2. Introduction of demand-based pricing, enhanced enforcement, and evening parking should help balance demands in the higher demand areas.

Bricktown has ample parking supply, largely related to commercial shopping areas and event parking areas. Creation of shared parking strategies and reduction of new parking capacity in the area could serve to better balance the overall parking system.

*Scenario 2 includes the expected developments included in Scenario 1

KEY OBSERVATIONS AND FINDINGS

Based on the perceptions evaluation, existing conditions analytics, and future projections, the following primary findings emerged for Bricktown:

Event-based parking demands cause challenges in the area.

The presence of multiple event venues and nightlife destinations creates surges of parking demand that spill throughout (and outside of) the district. On event days, the demand in the area swells to near capacity. However, on non-event days there are large swaths of parking that sit empty throughout the district.

Parking management and policies should match demands.

The highest demands for parking in the district are at night and on weekends. Parking is not managed or enforced in either instance. The extension of meter and enforcement hours into the evenings would help to serve turnover and access in the area.

On-street parking pricing should be set by demands.

Just like the need to manage parking at night and on weekends is driven by higher demands, price should also be set to manage demand and balance access. Demand-based pricing that is set based on actual usage would help to support turnover and access in the area.

New parking is likely not needed.

The future plan for the area should focus on better and more efficient use of existing parking assets in the area. By managing those resources to a higher utilization, the area could continue to grow without the need for new public parking investment. This could primarily be accomplished through the creation of shared parking supply. Surface lots should be considered for infill development rather than primary land uses.



Bricktown Recommendations

Bricktown is framed by two issues. During events, publicly available parking is in high demand and businesses have to compete with visitors and event goers. During non-event periods, parking is abundant and leaves large areas underutilized. The combination of issues creates a very confusing system that is not oriented to the context of the area. Considering improvements to on-street parking management, shared parking, and pricing strategies will likely have the biggest impact in Bricktown. The following are the primary recommendations for the area:

Extend Enforcement and Paid Parking Hours – the hours of on-street paid parking and enforcement should more closely resemble the activity patterns in the area, with management extending until later in the evening (e.g. 8pm or 10pm). The later enforcement should help to continue to promote turnover during busier periods in the area.

Implement Demand-Based Pricing Policies – on-street pricing should be set higher in areas with higher activity, helping to promote balance throughout the system. Prices should also be set higher during events to ensure balance between on-street and off-street parking.

Promote Alternative Mobility Strategies – with the OKC Streetcar connecting through the area and throughout the Downtown Oklahoma City area, there are greater opportunities to attract people into the district without bringing their cars. The City, Embark, and COTPA should collaborate on policies (pricing, incentives, access) to promote better usage of the system, especially during event periods.

Shared Parking Solutions – a more cohesive approach to managing parking could eliminate some of the challenges between event and non-event periods. Shared parking supply would allow for implementing a more collaborative event management strategy, allow for area growth without investment in more parking, and support a balanced approach to parking demand management.

On-Street Parking Spaces - the City, COTPA, and DowntownOKC should evaluate the addition of paid on-street spaces in locations throughout Bricktown to support short-term public parking needs. An example would be the south side of Reno Avenue east of the railroad tracks. With the addition of the streetcar, traffic volumes could lower enough to allow for conversion of a travel lane to on-street parking.

Immediate within 1 year

- Extend enforcement and paid parking hours
- Implement event pricing on-street
- Consider initial shared parking opportunities

Mid - Term 1 - 3 years

- Promote alternative mobility strategies
- Expand shared parking
- Further implement demand-based pricing

Long - Term Beyond 3 years

- Expanded mobility options (benefit district funding)

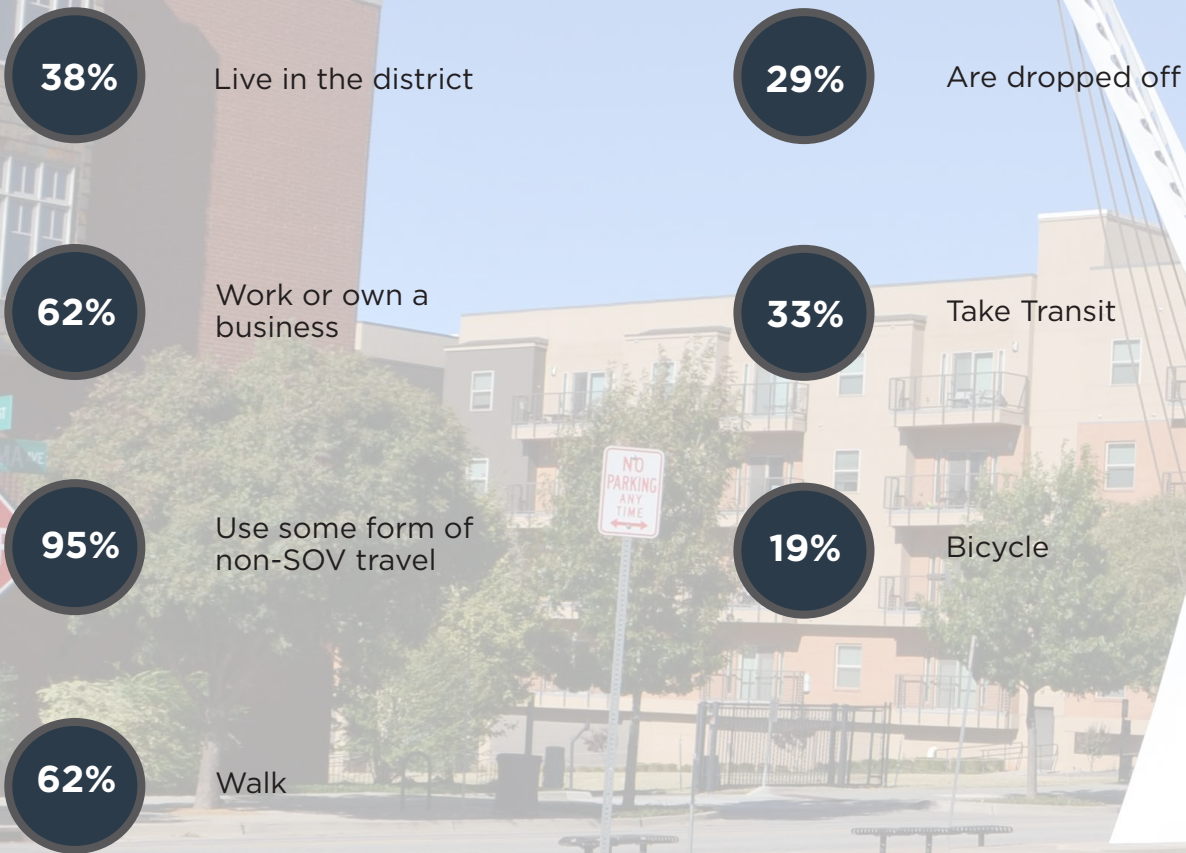


The Deep Deuce district, located just north of Bricktown, was the heart of Oklahoma City's African-American neighborhood in the 1920's and 1930's, and during that time the district was known for its incredible jazz music. Today, Deep Deuce is a popular residential location and has several neighborhood hangouts, where you can find more great restaurants, retail, live music and nightlife options.

Perceptions of Parking

The project team conducted several early outreach efforts to define how parking and mobility are perceived in Deep Deuce, including focus group conversations and community surveys. Below are some of the key findings from these efforts.

Community Survey Findings: 21 Responses to Deep Deuce District



Focus Group Findings:

- 1** Concerns about spillover parking from events in the Deep Deuce area
- 2** Residential parking needs within district need to be addressed long term
- 3** Leveraging streetcar as a viable connection into and out of district
- 4** Consider enforcement options if spillover impacts get worse
- 5** Better wayfinding and signage for parking assets

Satisfaction with Public Parking: 6.2 out of 10

Top reasons for dissatisfaction:

1. Not enough parking where needed
2. Too expensive
3. Need better signage and wayfinding

Highest Scoring Strategies:

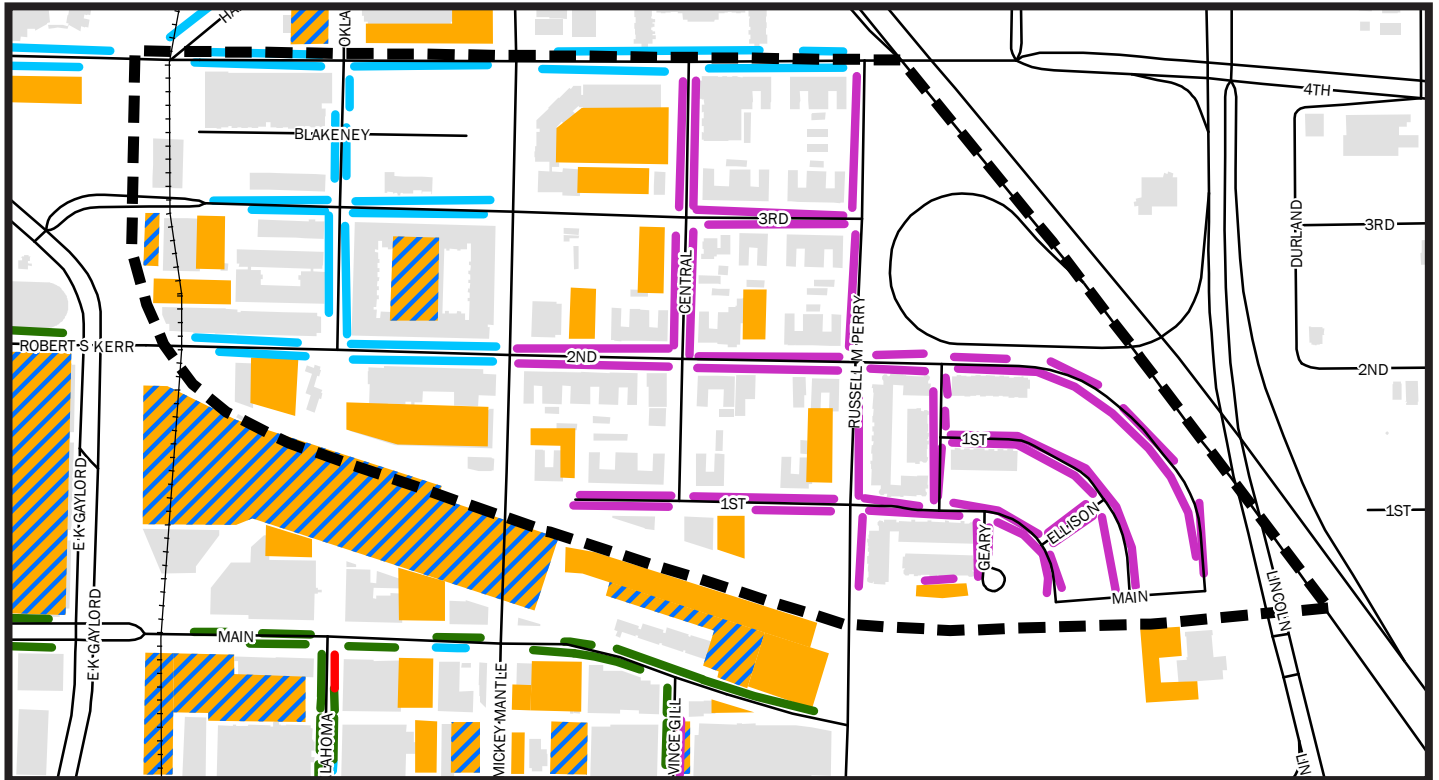
- 1 Improved Enforcement**
Enhanced enforcement to promote turnover and efficient use of street parking
- 2 Wayfinding Improvements**
Better signage and information about where people can park in Deep Deuce and adjacent districts
- 3 TNC Partnerships**
Leveraging rideshare partnerships to promote non-driving trips into the district

Funding Priorities:

- 1 Mobility Improvements**
Leveraging mobility options to promote non-vehicular access in and out of the district
- 2 Transit Enhancements**
Utilizing streetcar/transit to promote better connectivity with adjacent districts
- 3 Management/Operations**
Improved enforcement to promote efficient use of on-street parking

DEEP DEUCE INVENTORY

The parking system for Deep Deuce was evaluated in the early phases of the project, including the overall inventory of parking and utilization of those spaces. The following sections provide a summary of the key findings of those analyses.



On-Street Inventory

- Unregulated Parking
- Loading Zone
- Paid Meter Parking
- City/Government Permit
- Time Limited Parking

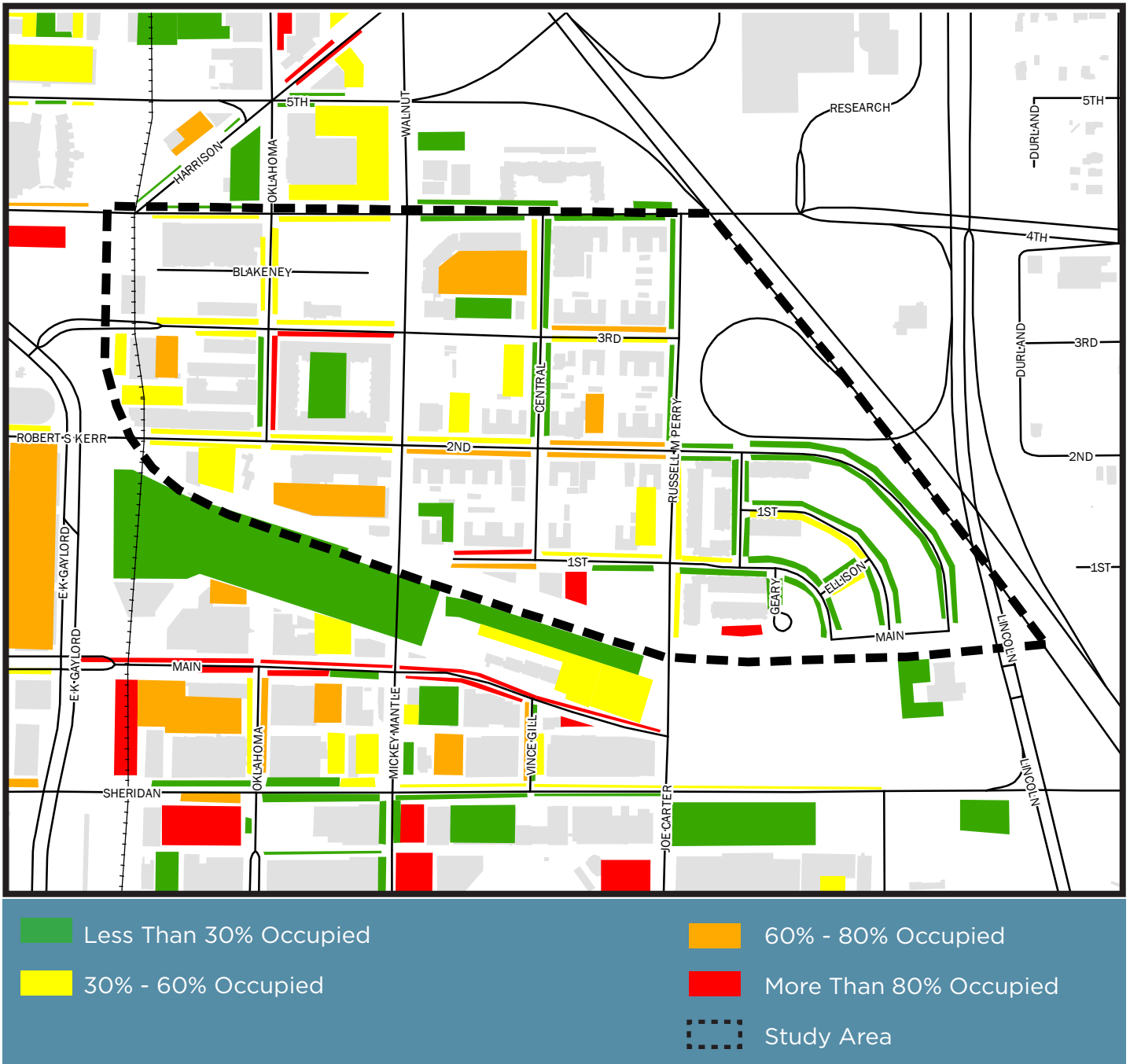
Off-Street Inventory

- Public Parking
- Private Parking
- Private Parking with Public Access
- Study Area

Category	Capacity	Peak Occupancy
Free On-Street	794	36%
Publicly Owned Public Parking	0	N/A
Privately Owned Public Parking	570	48%
Private Parking	328	11%

**Peak occupancy represents weekday mid-afternoon occupancies*

DEEP DEUCE PEAK OCCUPANCY



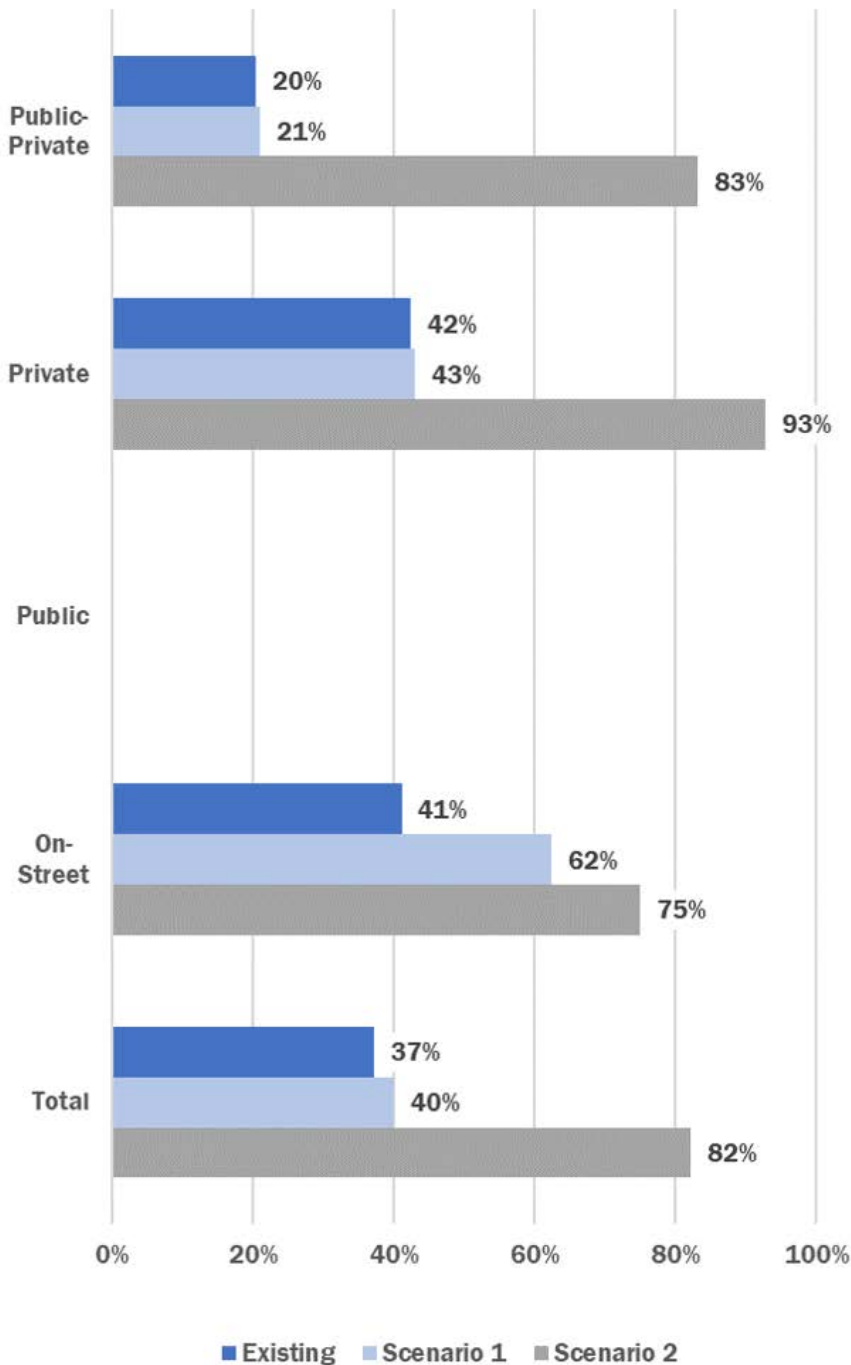
DEEP DEUCE SNAPSHOT:

- Public spaces only make up 47% total spaces (all on-street)
- Less than 1/4 of the facilities are in the target occupancy range 60 - 80%

FUTURE DEMAND PROJECTIONS

The Park+ model was used to define future demand projections for each of the districts in Downtown Oklahoma City. Within Deep Deuce, there were very few committed project sites (see Introduction section). Scenario 2 identified a handful of vacant sites in or near Deep Deuce that could contribute to future demand growth. Additionally, the inclusion of projects in adjacent districts has the potential to change the current demand profile in the area. The results of this future projection are shown below.

Existing and Projected Parking Demand



Private parking demands are not expected to be impacted by initial phases of development. However, future phases (Scenario 2) could require significant usage of private parking assets to support growth. It will be important in later phases of plan implementation to create shared parking opportunities with private parking.

On-street parking demand is the only form of public parking in Deep Deuce. It is expected to see a steady increase in demand from today's conditions to completion of projects in Scenario 1 and 2. Introduction of policies and regulations to support efficient use of parking will provide equitable access for residents and visitors alike.

Overall, Deep Deuce should continue to have ample parking supply even when approaching full build out of the projects in this plan. There will be a need to implement shared parking and advanced management strategies to ensure proper usage of the parking system.

*Scenario 2 includes the expected developments included in Scenario 1

KEY OBSERVATIONS AND FINDINGS

Based on the perceptions evaluation, existing conditions analytics, and future projections, the following primary findings emerged for Deep Deuce:

Spillover parking impacts can be felt from Bricktown.

When there are large events or nightlife activities in the Bricktown area, the district faces a surge in parking on-street as event-goers attempt to park for free in Deep Deuce. Because of the lower capacity of parking in the area, this can cause impacts throughout the district.

Wayfinding and branding would help identify the available parking.

Although the supply for parking is limited in the district, there are available public parking spaces. These would be better served if they were signed and advertised as such. This would be especially helpful if they became part of a public shared parking system.

On-street parking would be better served with a consistent approach to enforcement.

Enforcement efforts need to be consistently applied to manage the on-street resource and ensure parking spaces are turning over.



Deep Deuce Recommendations

Deep Deuce is a largely residential area that, if isolated, would be largely free of parking issues. However, spillover parking demands from adjacent districts create constraints and challenges for limited public parking found on street. Creating a more cohesive parking management strategy should include policies to support equitable access and efficient use of public parking, improvements to on-street management, and education to help support better knowledge related to the areas parking system. Primary recommendations for Deep Deuce include:

Improve Enforcement – the Deep Deuce area would be well served with more active enforcement, especially during times of spillover from events in adjacent districts. Ensuring that policies and regulations are enforced will help to provide access to available parking. This will become critically important if COTPA and the City ever implement residential parking protections.

Implement Wayfinding Improvements – parking in the Deep Deuce area is not easily located for first time visitors, which often leads to using free street parking. With some improvements to wayfinding (both static and digital), COTPA and the City can attempt to provide better balance between on-street and off-street parking.

Evaluate a Residential Parking Program – COTPA and the City could implement residential parking permits in the area that allowed for unlimited street parking for residents, while limiting visitor parking to a certain time limit (e.g. two hours or less). This would require implementing code changes and creating a structure to evaluate, implement, and manage permitted parking (see the Policy section).

Immediate within 1 year

- Improved approach to enforcement

Mid - Term 1 - 3 years

- Implement wayfinding improvements
- Consider mobility investments
- Evaluate shared parking opportunities

Long - Term Beyond 3 years

- Evaluate shared parking opportunities

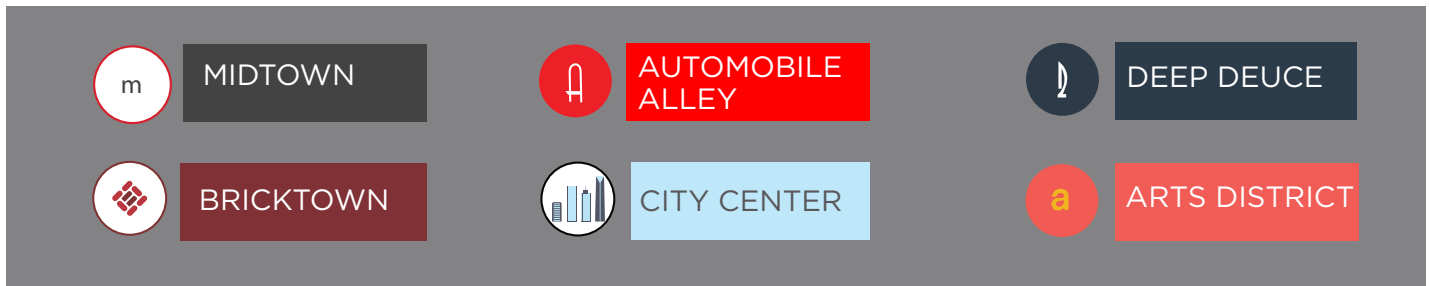




Action Plan

ACTION PLAN

There have been specific recommendations and strategies defined throughout this report, including in the Policy and District sections. This section consolidates those recommendations and strategies into an implementation timeline to help define the process for implementing strategies. The table includes the overall recommendation, the category in the Policy that defines the implementation steps, the responsible parties, and partners for implementation. The recommendations and strategies are organized by phases, including short-term, mid-term, and long-term. These timelines will help guide COTPA and the City when making future parking decisions.



SHORT-TERM (YEAR 1)				
RECOMMENDATION	CATEGORIES	RESPONSIBLE PARTY	PARTNERS	DISTRICTS
Define COTPA's role in shared parking	Shared Parking	COTPA	DowntownOKC, Private Sector	
Identify initial areas for implementation	Shared Parking	COTPA	DowntownOKC, Private Sector	
Define pilot test parameters	Shared Parking	COTPA	DowntownOKC, Private Sector	
Implement new paid parking areas	Implementing and Managing Paid Parking	COTPA, City	DowntownOKC	
Adjust hours of enforcement	Implementing and Managing Paid Parking	COTPA, City	DowntownOKC	
Increase on-street parking prices	Implementing and Managing Paid Parking	COTPA, City	DowntownOKC	
Implement event-based pricing schemes on-street	Implementing and Managing Paid Parking	COTPA, City	Event management stakeholders, DowntownOKC	

SHORT-TERM (YEAR 1)

RECOMMENDATION	CATEGORIES	RESPONSIBLE PARTY	PARTNERS	DISTRICTS
Transition enforcement duties to COTPA	Improved Enforcement Options	COTPA, City	Police	
Create Ambassador-style enforcement structure	Improved Enforcement Options	COTPA	City	
Maintain curb lane inventory (from this study)	Curbside Management Policies	COTPA	Embark, City	
Develop curb lane priorities	Curbside Management Policies	COTPA	City, DowntownOKC	
Evaluate data collection mechanisms (existing/future)	Data-Driven Policies	COTPA	Embark	
Implement ongoing data analytics processes	Data-Driven Policies	COTPA	Embark	
Identify/hire data scientist	Data-Driven Policies	COTPA	Embark	
Define program performance metrics	Data-Driven Policies	COTPA	Embark, City	
Implement mobile pay platform	Technology Improvements	COTPA		
Enhance program branding efforts	Wayfinding Improvements	COTPA, City	DowntownOKC, Area Stakeholders	
Integrate walking and biking (bikewalkokc) improvements	Mobility Enhancements	City	COTPA, DowntownOKC	

MID-TERM (YEARS 1-4)

RECOMMENDATION	CATEGORIES	RESPONSIBLE PARTY	PARTNERS	DISTRICTS
Measure and communicate success of short term implementation	All	COTPA	DowntownOKC	
Expand shared parking as opportunities arise	Shared Parking	COTPA	DowntownOKC, Private Sector	
Expand paid parking areas as data analytics dictate	Implementing and Managing Paid Parking, Data-Driven Policies	City, COTPA		
Creating incentives for centralized shared parking	Right-Sized Parking Policies and Codes	City, COTPA	DowntownOKC	
Evaluate a fee in-lieu of parking	Right-Sized Parking Policies and Codes	City, COTPA		
Evaluate a Downtown Parking Management/ Benefit District	Right-Sized Parking Policies and Codes, Parking Benefit Districts	City, COTPA	DowntownOKC	
Implement demand-based pricing policies	Implementing and Managing Paid Parking, Data-Driven Policies	City, COTPA		
Define the structure and use of revenues	Define the structure and use of revenues	City, COTPA	DowntownOKC	
Define board/ commission/ governing structure	Parking Benefit Districts	City, COTPA	DowntownOKC	
Consider graduated fine structures	Improved Enforcement Options	City, COTPA		

MID-TERM (YEARS 1-4)

RECOMMENDATION	CATEGORIES	RESPONSIBLE PARTY	PARTNERS	DISTRICTS
Identify optimal usage of curb space	Curbside Management Policies	City, COTPA		
Monitor curb space usage	Curbside Management Policies	COTPA		
Providing real-time and/or smart information	Technology Improvements	COTPA	Existing Technology Vendors	
Create LPR-based occupancy streams	Technology Improvements	COTPA	Embark	
Develop consistent wayfinding strategy	Wayfinding Improvements	City, COTPA	DowntownOKC	
Marketing/Messaging campaigns	Wayfinding Improvements	COTPA	DowntownOKC	
Consider smartphone applications	Wayfinding Improvements	COTPA	Existing Technology Vendors	
Develop residential parking permit policy	Enhance Residential Parking Practices	City	COTPA, DowntownOKC	
Create TNC-based rideshare pick-up/drop-off zones	Mobility Enhancements	COTPA	City, TNC's	
Adopt policies to monetize shared mobility access	Mobility Enhancements	City, COTPA	DowntownOKC, Shared Mobility Providers	
Create policies that support efficient use of shared mobility	Mobility Enhancements	City, COTPA	DowntownOKC, Shared Mobility Providers	

LONG-TERM (BEYOND 4 YEARS)

RECOMMENDATION CATEGORIES		RESPONSIBLE PARTY	PARTNERS	DISTRICTS
Measure and communicate success of short term implementation	All	COTPA	DowntownOKC	
Expand shared parking as opportunities arise	Shared Parking	COTPA	DowntownOKC, Private Sector	
Expand paid parking areas as data analytics dictate	Implementing and Managing Paid Parking, Data-Driven Policies	City, COTPA		
Consider TDM/ Modern Mitigation strategies in OKC code	Right-Sized Parking Policies and Codes	City, COTPA		
Define parking investment strategy	Right-Sized Parking Policies and Codes	City, COTPA		
Evaluate commercial/ neighborhood parking policies	Enhance Residential Parking Practices	City, COTPA	DowntownOKC	
Implement virtual permitting for RPPs	Enhance Residential Parking Practices	COTPA		
Consider district-based mobility hubs	Mobility Enhancements	City, COTPA	DowntownOKC	
Consider Public-Private Partnerships	Shared Parking	City, COTPA	Private Sector, DowntownOKC	