



**MISSOULA'S
DOWNTOWN
MASTER PLAN**

PARKING REPORT



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List of Acronyms

MPC – Missoula Parking Commission

MaaS – Mobility as a Service

CBD – Central Business District

LPR – License Plate Recognition (or MLPR Mobile License Plate Recognition)

PARCS – Parking Access and Revenue Controls System

RPPP – Residential Parking Permit Program

TNC – Transportation Network Companies (i.e., Uber, Lyft, etc.)

PMD – Parking Management District

PBD – Parking Benefit District

Executive Summary

Executive Summary

The Parking chapter of the 2019 Downtown Missoula Master Plan Update is composed of three primary sections:

1. Current Parking Management Program Overview
2. Parking Supply/Demand Update
3. Parking Commission Strategic Plan Update – Recommended Strategies

Current Parking Management Program Overview

The Current Parking Management Program Overview section describes the Missoula Parking Commission’s (MPC) mission, programs, jurisdiction, organization and resources. It also documents many of the fundamental operating aspects of the program including such elements as current parking rates, leased parking, recent parking technology upgrades, etc. This section also

includes a summary of program accomplishments. All these elements were documented as context and background against which the supply/demand update and the new program recommendations should be considered.

Parking Supply/Demand Update

The parking supply/demand update section provides a detailed evaluation of existing parking lots, garages and on-street parking assets (both public and private).

The study area (illustrated to the right) was divided into five zones.

Detailed inventories of parking are broken out into multiple categories of use. The Greater Downtown study area has a total supply of 9,482 parking spaces. Of these, 3,594 parking spaces (38%) are located on-street and 5,888 (62%) are located off-street. The following table summarizes the on and off-street totals by zone:

Zone 1 (Westside/Core)

Off-street: 2,889 spaces

On-Street: 1,637 spaces

Zone 2 (Riverside)

Off-street: 541 spaces

On-Street: 62 spaces

Zone 3 (TIF District)

Off-street: 1,042 spaces

On-Street: 204 spaces

Zone 4 (East Downtown)

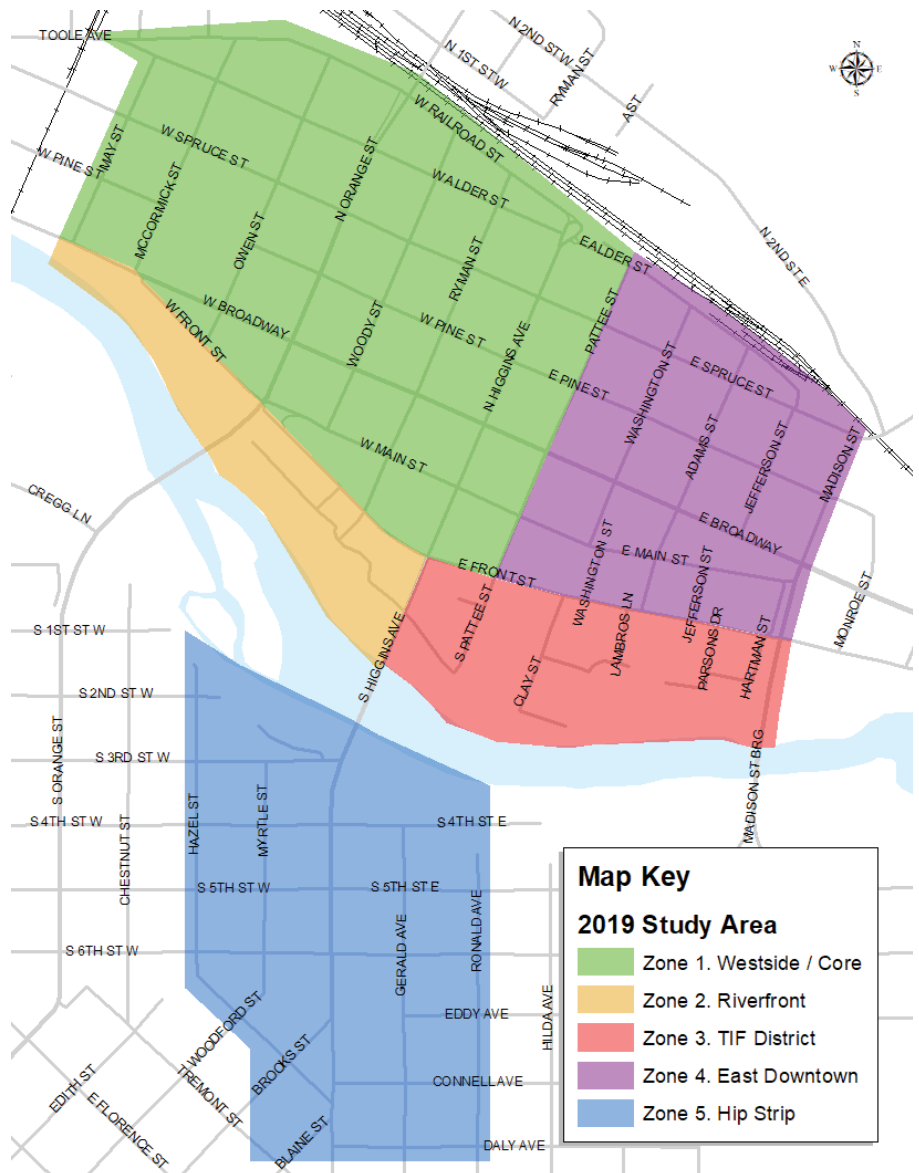
Off-street: 595 spaces

On-Street: 674 spaces

Zone 5 (Hip Strip)

Off-street: 821 spaces

On-Street: 1,017 spaces



Based on utilization surveys conducted during the week of March 4th, 2019, the study area was observed to operate at approximately 64% occupancy overall. On-street parking was the highest utilized facility type at 71%, absorbing 2,116 vehicles of the 6,046-total observed vehicles parking within the study area.

Parking utilization heat maps were also developed for each study area zone. The heat map below illustrates the parking utilization for the entire study area. Each zone was also evaluated independently.

Supply/Demand Adjustments

The data collection for the parking supply/demand update was conducted during the week of March 4th, 2019. All parties agreed that this was a “typical week” without any special events or other demand anomalies. However, it turned out to be a very cold week and there was concern that the cold temperatures did have an impact by driving down parking utilization.

To determine what level of impact the weather may have had on the counts, a set of additional counts of the MPC’s off-street parking assets was conducted on July 10th, 2019.

The table below compares utilization counts of the MPC’s off-street facilities in July to those taken in March.

MPC Off-Street Parking Counts 3/6/2019				
Structure/Lot	Supply	# of Open Spaces	% Available	% Occupied
Bank Street	137	32	23.3	76.7
Central Park	277	81	29.2	70.8
New Park	109	78	71.5	28.5
Park Place	301	150	49.8	50.5
Roam	148	48	32.4	67.6
Totals	972	389	40	60%

MPC Off-Street Parking Counts 7/10/2019				
Structure/Lot	Supply	# of Open Spaces	% Available	% Occupied
Bank Street	137	20	14.6	85.4
Central Park	277	63	22.7	77.3
New Park	109	0	0	100
Park Place	301	150	49.8	50.2
Roam	148	93	62.8	37.2
Totals	972	326	33.5	66.5%

Despite the cold weather during the March counts within the MPC off-street facilities, the counts conducted on July 10th were only 6.5% higher. It was noted that the numbers from the Roam garage may be somewhat skewed as the counts were taken during Summer break. If we use the counts from March for the Roam Garage instead of those

MPC Off-Street Parking Counts 7/10/2019					
Structure/Lot	Supply	# of Open Spaces	# of Occupied Spaces	% Available	% Occupied
Bank Street	137	20	117	14.6	85.4
Central Park	277	63	214	22.7	77.3
New Park	109	0	109	0	100
Park Place	301	150	151	49.8	50.2
Roam	148	48	100	32.4	67.6
Totals	972	281	691	28.9	71.1%

taken in July, the overall occupancy rate jumps to 71.1% or an 11.1% increase.

Another factor for consideration is the Park Place garage. This garage, in both counts reflects 150 available spaces or a utilization rate of 50.5%. However, a majority of the “unoccupied” spaces in this garage are leased to the Marriott hotel and not available to the public. If it was assumed that 90% of these 150 spaces are “off the table” because they are leased, then the overall utilization picture changes dramatically with overall utilization at approximately 85% as reflected in the table below.

MPC Off-Street Parking Counts 7/10/2019					
Structure/Lot	Supply	# of Open Spaces	# of Occupied Spaces	% Available	% Occupied
Bank Street	137	20	117	14.6	85.4
Central Park	277	63	214	22.7	77.3
New Park	109	0	109	0	100
Park Place	301	15	286	0.49	99.51
Roam	148	48	100	32.4	67.6
Totals	972	146	826	15	85%

Figure 4. Utilization of Existing MPC Facilities

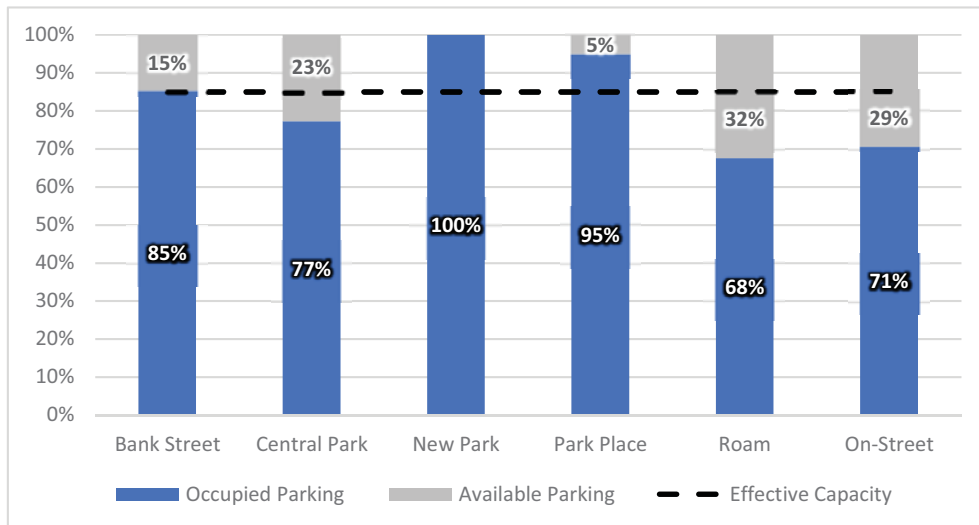
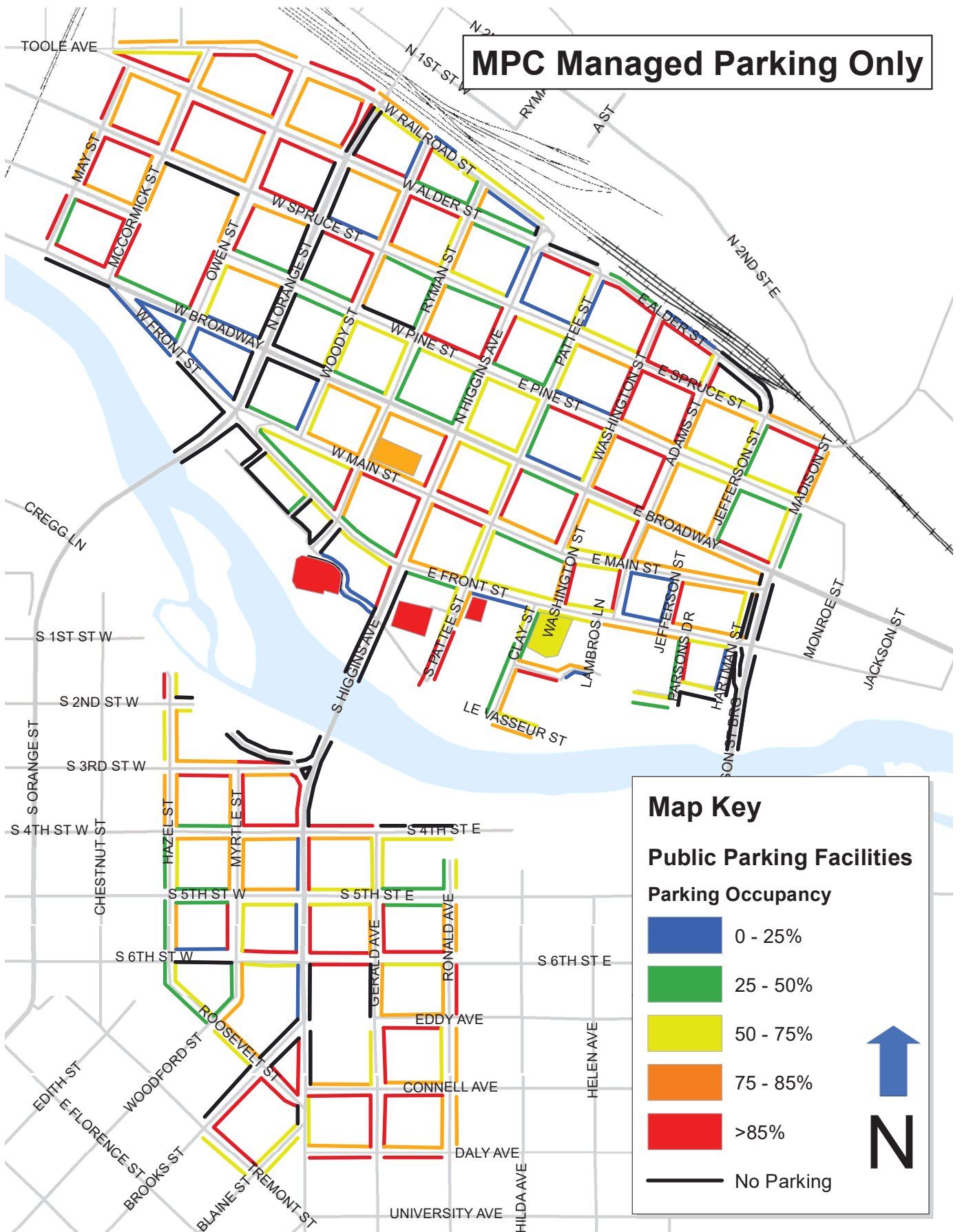


Figure 5. MPC Existing Parking Utilization as of July 2019



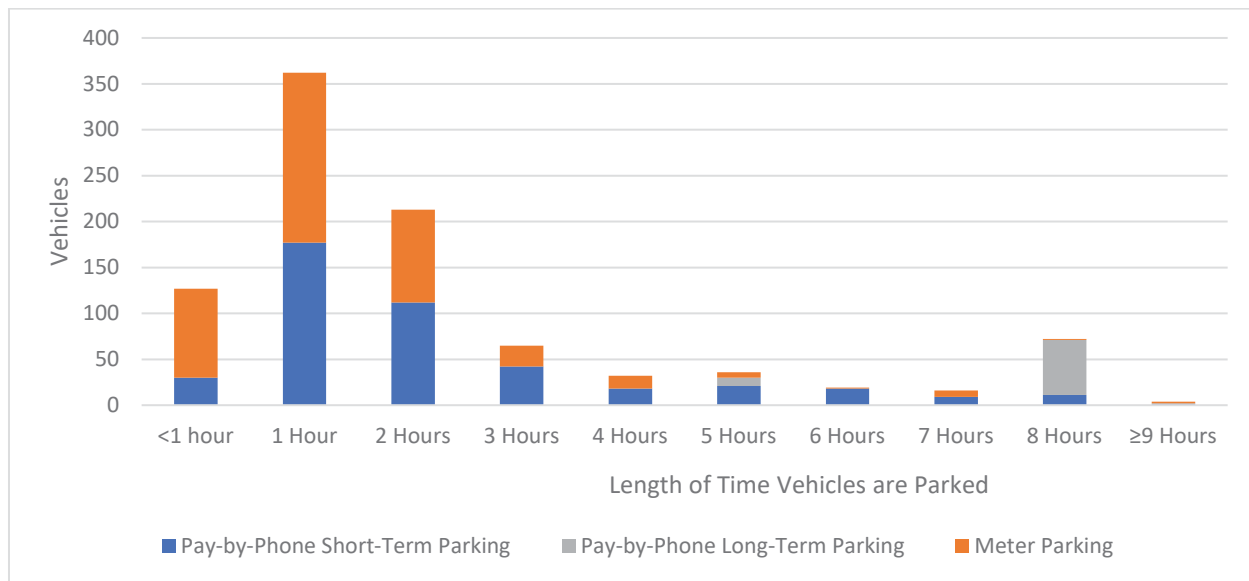
Duration and Turnover of On-Street Parking

Duration and turnover of on-street parking was also assessed. Transactional data was analyzed for the same date that occupancy counts were completed for continuity and to facilitate cross analysis of the data.

The number of meter transaction remains relatively consistent from 9:00 am through the 3:00 pm hour, ranging from 49 to 69 transactions per hour. Passport mobile app transactions, however, experienced a spike during the 9:00 am hour followed by a dip during the 10:00 am hour.

Throughout the day, the majority of parking transactions cover what is commonly considered short-term parking, with approximately 52% of vehicles parked for one hour or less, and 74% parked for two hours or less. As shown in Figure 3, only 15.5% of vehicles parked on-street stayed five hours or more, representing 147 of 946 transactions. 15.5% of vehicles parked on-street stayed five hours or more, representing 147 of 946 transactions within this area on the date of analysis.

Figure 17. On-Street Average Duration of Transactions per Hour by Zone Classification



Average vehicle turnover in the five on-street areas used for on-street parking turnover sampling generated the following results:

- Area 1: 2.59 turns per day
- Area 2: 2.89 turns per day
- Area 3: 2.42 turns per day
- Area 4: 1.46 turns per day
- Area 5: 1.93 turns per day

This equates to an average on-street turnover rate of 2.26. This is considered fairly low, with an ideal turnover rate being in the 4.0 – 5.5 range. Part of this is lower than desired turnover rate has to do with limited enforcement staff given the size of the enforcement area and enforcement hours.

Extending enforcement hours later into the evenings and on Saturdays is recommended but will require additional staffing.

A recommended metric for appropriate parking enforcement staffing is approximately one officer for 350 – 400 spaces.

Parking Commission Strategic Plan Update

The RFP for this project stated the following related to downtown parking in Missoula:

“Parking: As the downtown transitions to a more vibrant residential, employment and entertainment district, parking has become an increasingly important issue. There are four parking structures in downtown; however, most of public parking

is currently provided either on the street or in surface lots. Regardless of zoning requirements, the market, especially for new housing and office space, increases the need for additional off-street parking, ideally in the form of structured parking.

The MPC has done an excellent job of creating and managing parking when most of the demand could be met without building structures. That model no longer works with greater demand and higher land values.

MPC now has the need for a comprehensive parking plan to help guide planning, resource allocation, and increase revenues.”

Over the years, but especially in the past two decades, the Missoula Parking Commission has evolved into

a respected and accredited parking management organization. Having implemented all the major recommendations from the 2009 Downtown Master Plan via the “Parking Strategic Plan”, the MPC made significant investments in upgrading the parking system’s technology base as well as becoming one of the first programs in the nation to achieve program accreditation through the International Parking and Mobility Institute.

The MPC’s participation in the 2019 Downtown Master Plan Update provides an opportunity to enhance policies and management practices to leverage the new capabilities and data available from the new parking management system investments (including the T2 Systems “Flex” software platform, new off-street parking equipment, pay-by-license plate multi-space on-street meters and mobile license plate recognition software).

Defining a series of parking and mobility management priorities to support the larger strategies and objectives of the updated downtown master plan in 2019 and establishing processes for the MPC to grow and expand in the future is addressed in this Parking Strategic Plan update section of this report.

Twenty-one specific strategies are suggested to move the parking commission forward in the coming years. These potential strategies are categorized to reflect whether the strategy is recommended for consideration as a short-term, medium-term or long-term strategy and are linked to larger downtown master plan objectives. The major series of suggested strategies are summarized below:

Short-Term Strategies

- Shared Parking leveraging Private Assets
- Enhance Parking Facilities Maintenance Practices
- Develop New Employee Parking Strategies
- Review MPC Organizational Structure

- Establish a Formal Parking Over-Sell Policy
- Truck Loading Zones

Medium-Term Strategies

- Modernize Parking Codes/Ordinances/Policies
- Parking Commission Expansion and Growth
- Performance (Demand) Based Pricing
- Future Parking Garage and Mobility Initiative Financing Strategies
- Forming New Parking Management Districts
- Parking Time Limits and Enforcement Hours
- Data-Driven Policies to Support Balanced Utilization
- Improve Parking and Mobility Wayfinding, Branding, and Messaging
- Improve Pedestrian and Bicycle Services and Facilities
- Implement a Comprehensive and Dynamic Curb Lane Management Program
- Enhance Residential Parking Practices
- New Parking Asset Development/Design Guidelines
- Review Parking Allocation Policy for Reallocation of Public Spaces Between Hourly and Leased

Long-Term Strategies

- Implement MaaS/Personal Transportation Options
- Implementing Paid On-Street Parking in New Areas

Key focus areas for Parking Commission moving forward include:

- Identifying funding sources for future parking infrastructure development
- Planning for MPC jurisdictional expansion and the addition of new parking management districts
- Shifting to a demand-based parking pricing model
- Addressing truck loading issues
- Increasing lease parking options in the short-term
- Implementing a comprehensive Curb Lane Management Program and
- Enhancing residential parking practices

Current Parking Management Program Overview

Current Parking Management Program Overview

Parking Program Overview, History and Accomplishments

Overview

The Missoula Parking Commission (MPC) is a city department responsible for parking operations, maintenance, and enforcement within Missoula's Central Business District (CBD) and a residential parking permit area near the University of Montana. The MPC oversees a variety of parking facilities in the downtown core, the Residential Parking Permit Program (RPPP), meter collections, maintenance and enforcement, and the issuance of permits for disabled, commercial, and loading zone spaces. The MPC has established itself as more than just an organization that provides parking for vehicles. The MPC is striving to be an active and collaborative downtown partner working with other organizations to develop and promote strong parking, transportation alternatives and transportation demand management strategies.

Mission

The Missoula Parking Commission plays an important role in making Missoula's downtown a great experience. The MPC's mission is to work with government, businesses, and citizens to provide and manage parking and parking alternatives. The MPC identifies and responds to the ever-changing parking needs in the area(s) for which it is responsible.

Jurisdiction

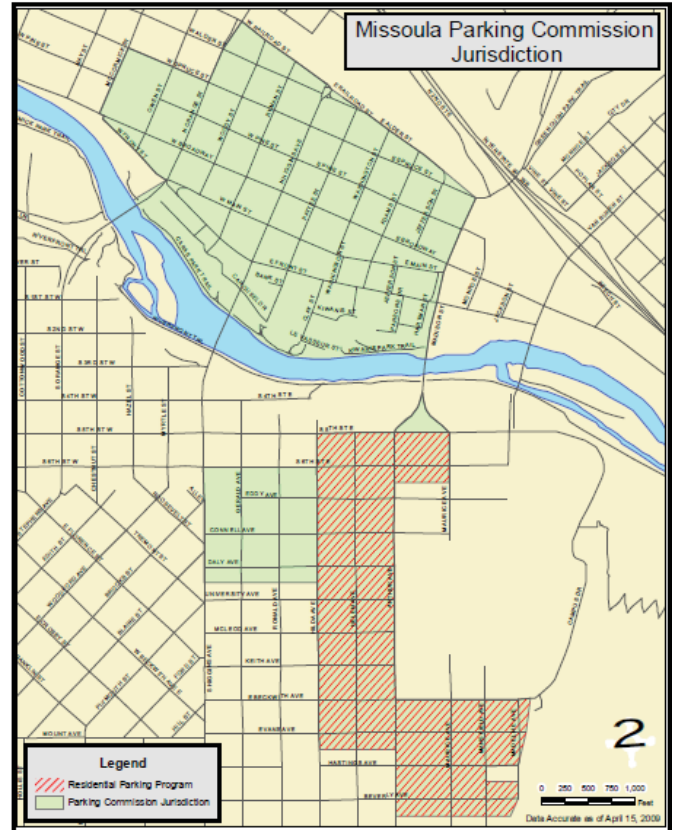
The MPC's jurisdiction includes two basic areas:

- The Central Business District, including the area downtown where the meters are located
- The Residential Parking Permit Program (RPPP), adjacent to the University of Montana

Organization

The MPC is governed by a Board of Directors consisting of five members with four-year terms. The Board members are recommended by the Mayor and approved by the City Council and are required to be residents of the City. The Parking Commission works in coordination with the City Council to further the transportation and economic development goals of the City, especially the downtown.

The City of Missoula's parking organization is "vertically integrated" (i.e., on-street, enforcement, off-street operations, TDM investments and planning



are managed as one unit) under the leadership of the MPC Director. The Director reports to the MPC's Board, and the position also serves as an ex-officio board member of the Missoula Downtown Partnership. The MPC Director also takes counsel and advisement from the Missoula Redevelopment Agency (MRA). Based on a request that alternative parking system organizational options be included as part of this study, a separate section on alternative organizational models has been included.

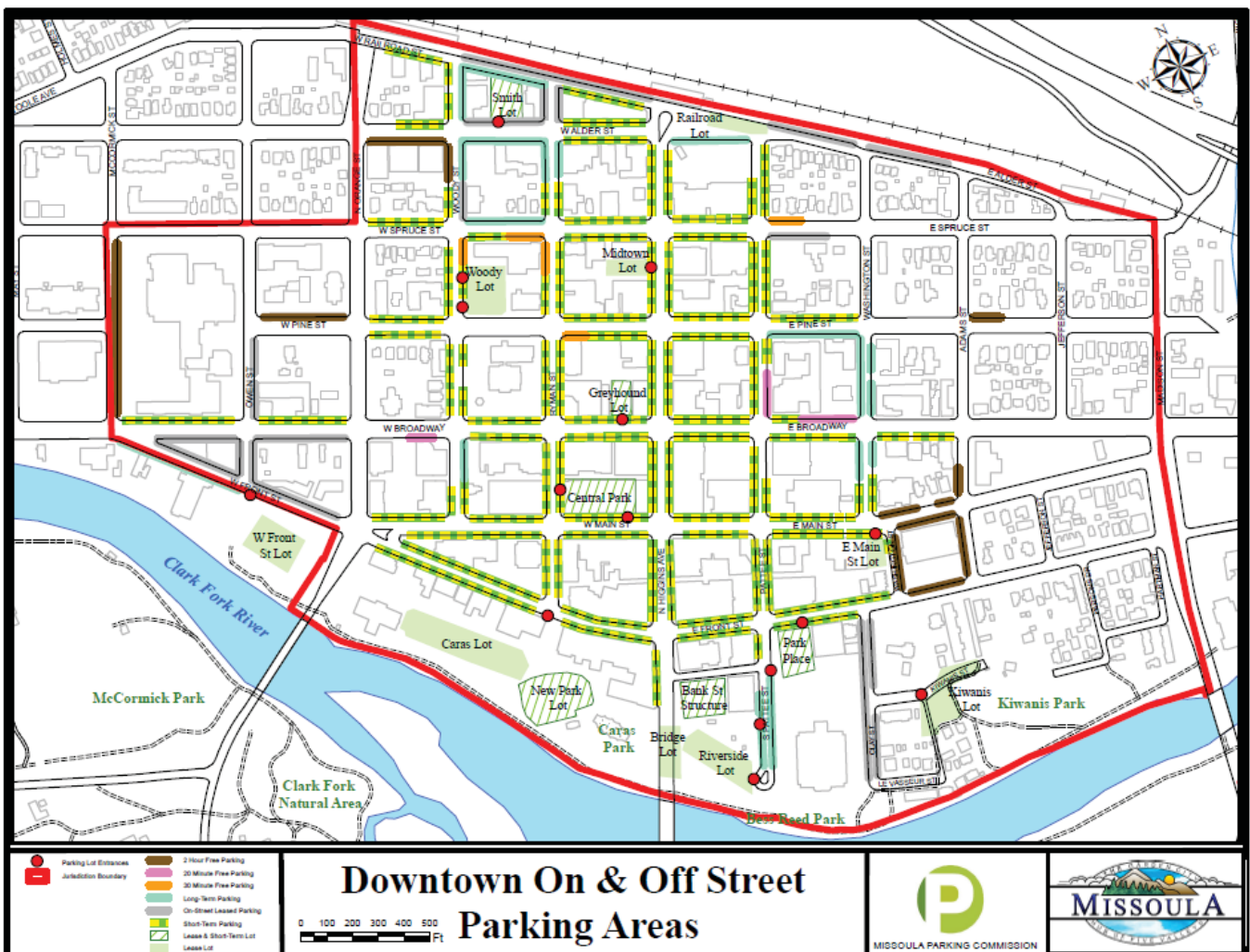
The MPC is comprised of twelve full-time equivalent (FTE) employees under the following operating and service entities;

- Administrative Group (4 FTEs)
- Parking Enforcement Group (3 FTEs)
- Parking Operations / Maintenance Group (4 FTEs)
- Parking Services Assistant (1 FTEs)

The parking Operations/Maintenance and Administrative groups are the largest sections each with approximately 33% of the staff, while the Enforcement Group comprises approximately 25%. Each Group has clearly defined tasks and responsibilities under the leadership of a supervisor who reports to the MPC Director.

Resources

- The major resources managed by the MPC includes:
 - Total MPC Garage Spaces: 863
 - Park Place 301
 - Central Park 277
 - Bank Street Structure 137
 - Roam Student Housing 148
- Total Metered Spaces: 1,047
- Total Off-Street Parking Lot Spaces: 5,888
 - Private: 3,549 Note: Not managed by the MPC.
 - Leased: 1,367
 - Combination of Leased and Hourly: 972



Parking Rates

Structure	Hours of Operation	Rates	Payment Options
Bank Street South of East Front St, next to the Higgins Street Bridge	Monday - Friday 8am to 5pm	\$1.00 per hour FREE Weekdays after 5:00 p.m., State of MT legal holidays, and weekends. Accessible Parking FREE up to 2hrs**	Coins Credit Cards MC / Visa
Central Park 128 W. Main St.	Monday - Friday 8am to 6pm	1st hour = FREE 2nd to 10th hour = \$1.00 each FREE weekdays after 6:00 p.m., State of MT legal holidays, and weekends.	Cash Value Pass Credit Cards MC / Visa
New Park Riverfront	Monday - Friday 8am to 5pm	\$1.00 per hour Accessible Parking FREE up to 2hrs** FREE weekdays after 5:00 p.m., State of MT legal holidays, and weekends.	Coins Credit Cards MC / Visa
Park Place 201 E Front Street	Monday - Friday 8am to 6pm	1st hour = FREE 2nd - 10th hour = \$1.00 each FREE weekdays after 6:00 p.m., State of MT legal holidays, and weekends.	Value Pass Credit Cards MC / Visa
Roam 305 E Front Street	Monday - Friday 8am to 6pm	1st hour = FREE 2nd - 10th hour = \$1.00 each FREE weekdays after 6:00 p.m., State of MT legal holidays, and weekends.	Cash Value Pass Credit Cards MC / Visa
Short-term On-street Metered Parking Central Business District	Monday - Friday 9am to 5pm	FREE weekdays after 5:00 p.m., State of MT legal holidays, and weekends. Accessible Parking FREE up to 2hrs**	Coins Credit Cards MC / Visa Pay-By-Phone* Passport ZONE4061

* Passport Parking smart phone and online payments will have a \$0.25 convenience fee

**With a valid accessible plate or placard, on-street parking is free for up to 2hrs. Parking that exceeds this limit can be paid for by using the multi-space meter or Passport Parking app.

Leased Parking

Leased parking is available throughout downtown. However, leased parking availability has been getting tighter as the downtown continues to develop. The table below summarizes the current lease parking inventory by area, the current number of leased and available spaces as well as the “oversell” by area.

Name	Rate (Monthly)	# of Spaces	Leased	Oversell	Available for Lease
Bank Street Structure	\$85	78	89	9%	0
Bridge Lot	\$62	33	33	0	0
Caras Lot	\$65	148	183	24%	0
Clay Street	\$35	21	21	0	0
Central Park Structure	\$75-85	170	186	9%	1
East Alder Street	\$35	25	0	0	0
East Main Lot	\$65	23	23	0	0
East Spruce Street	\$35	12	12	0	0
Engine Lot	\$50	16	16	0	0
Greyhound Lot	\$70	25	25	0	0
Kiwanis Park Lot	\$40	23	26	13%	0
Midtown Lot	\$70	16	16	0	0
New Park Lot	Converted to hourly only				
North Ryman Street	\$35	8	8	0	0
North Woody Street	\$35	9	9	0	0
Owen Street	\$35	15	14	0	1
Park Place Business	\$85	200	199	0	1
Park Place Individual	\$85	81	78	0	3
Railroad Street	\$35	26	25	0	1
Riverside Lot	\$60	92	92	0	0
ROAM Business	\$85	44	44	0	0
ROAM Individual	\$85	46	40	0	6
Smith Hotel Lot	\$50	15	15	0	0
West Alder Street	\$35	13	13	0	0
West Broadway Street	\$35	14	9	0	5
West Front Lot	\$40	75	36	0	39
West Front Street	\$35	19	19	0	0
Woody Lot	\$60	59	64	8%	0
Totals		1,338	1,353		57

Based on industry standards, monthly or contract parking can be “oversold” by some percentage since not all employees work every day. Typically, a minimum “oversell factor” of 15% is recommended as a starting point. It is not uncommon for some lots to be oversold at a rate approaching 25% – 35% or higher, depending on the user characteristics and usage patterns.

If the MPC adopted a standard 15% oversell for all the spaces documented above, this could create approximately an additional 150 - 200 monthly spaces. However, very small lots have less oversell capacity and the 15% guideline may need to be reduced for these resources. The suggested approach is to begin incrementally increasing the oversell factor on each area and monitor availability closely to ensure a utilization rate in the 90 – 95% range.

Another “private parking management” maxim is: “If your parking lots are full, your rates are too low.” Based on the demand documented above, parking rates should be increased, at least in the

areas of highest demand (demand-based pricing). Maintaining some lower rates for less convenient spaces may be good policy to maintain a range of parking options at various price points.

Parking Technology Overview

- As part of the 2009 Downtown Master Plan and Parking Strategic Plan investments in upgrading parking technology was a priority. All of the recommended elements of the parking technology upgrade plan have been implemented. As a result of these efforts, the following summarizes the current state of the MPC’s parking technology resources:
 - The MPC purchased the T2 Systems Flex integrated, web-based parking management software system. This industry leading system is extremely robust and has all the functionality to integrate the full range of needs for a municipal parking program, including on-street, off-street and parking enforcement functions. A new feature recently implemented is the ability for parkers to make on-line payments from their computers or mobile devices.
- As part of the transition to the T2 System, the older off-street parking control equipment (largely in the MPC garages) was replaced with new T2 Parking Access and Revenue Control (PARC) “Series 2” equipment.
- A major program enhancement was the replacement of the aging single space parking meters with new LUKE II parking kiosks. These multi-space meters reduce the clutter on the curb face and because of the use of “pay-by-license plate” methodology, the needs for additional on-street parking signage was also reduced. The MPC purchased 134 of the Luke II meters in 2015.
- A subsequent and related investment to provide an alternative payment methodology was the addition of the Passport Parking mobile pay-by-phone technology. Downloading the Passport Parking app on your mobile devices allows patrons to pay for Downtown parking from anywhere.
- The app can store multiple license plates and payment information. Parking is enforced Monday through Friday 9am – 5pm for on street parking; parking is free after 5pm, weekends, and Federal holidays. The downtown area has three “parking zones”:
 - 4061- Short term parking
 - 4062- Long term parking (Downtown residents and employees only)
 - 4063- Bank St. and New Park
- Finally, the parking enforcement program has invested in Genetec “mobile license plate recognition” equipment and software, integrated through the T2 Flex software system. This system automates the enforcement process improving operational efficiency, expanding coverage areas without adding staff and improves citation collection ratios by providing enhanced citation documentation.

Summary of Program Accomplishments

- Participation and funding support for the 2009 Greater Missoula Downtown Master Plan by the MPC was a significant and important investment that has paid positive dividends for the agency and the downtown. The investments made by the MPC helped keep Master Plan momentum alive and helped to stimulate new economic development opportunities. The MPC is once again a significant funding partner as the community invests in a Downtown Master Plan Update project in 2018/19.
- The significant community engagement process that began as part of the Greater Missoula Downtown Master Plan created strong momentum and a consensus for action across the community. This momentum was maintained by on-going master plan implementation committee meetings for years with the MPC as an active participant.
- Positive downtown parking customer service enhancements were implemented in conjunction with investments in new on and off-street parking technology.
- The MPC employs a progressive strategy of supporting an integrated approach to parking and transportation alternatives.
- The MPC developed a strategic parking management plan and has effectively implemented its strategic plan action items adopting a leadership position within the downtown community.
- The investment in the new Park Place garage was the largest and most significant project-to-date for the MPC. The timing of this multimillion-dollar design and construction project, during the height of a major recession, helped to generate local jobs and boost the local economy when it was most needed.
- In the Summer of 2018, The MPC upgraded its off-street parking access and revenue control systems and implemented new mobile license plate recognition technology to improve the efficiency and effectiveness of their parking enforcement program.

Other Program Accomplishments

- One of the characteristics that sets the MPC apart from most parking programs in the country is its level of community engagement. The MPC has been involved in a wide range of community initiatives, including active involvement with almost every community development agency and significant institutional organization in Missoula.
- The positive and intimate relationship of the MPC to the Missoula Downtown Association (now part of the Downtown Missoula Partnership), the Missoula Redevelopment Agency, and the downtown Business Improvement District formed the basis of a cohesive and well-integrated downtown partnership that together have achieved many important projects that help to make Missoula the great downtown that it is today.

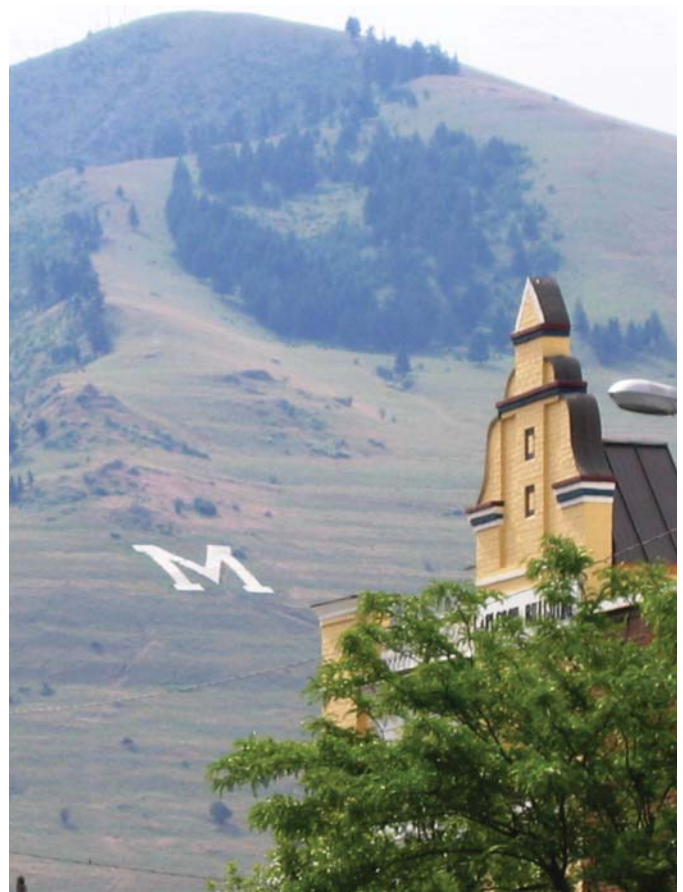
In addition to the agencies noted above, the MPC worked closely with the Missoula Downtown Foundation, the University of Montana, Hellgate High School, St. Patrick Hospital, the Hip Strip Neighborhood, Missoula in Motion, Mountain Line (local transit agency), and the Missoula Ravalli Transportation Management Association (MRTMA) to create a comprehensive and integrated access management network in Downtown Missoula. This type of consistent, high level engagement helped ensure that the parking program was connected, better understood and respected as a community partner and leader. The MPC was not only engaged in the planning and operational dimensions of downtown management, but they were also an effective contributor in the community and economic development arenas as well.

- The following nine primary action plan items formed the MPC parking strategic plan action item list. All of these items have been implemented.
 - Implement New Parking Facility Planning and Development
 - Adjust Parking Rates and Fines
 - Invest in New Parking Technology
 - Continue to Support and Invest in Multi-modal Access Strategies
 - Develop More Open and Collaborative Public Processes

- Focus on Economic Development Support Strategies
- Implement Recommended Retail Parking Strategies
- Pursue Parking Program Growth/Expansion
- Create a New Parking Program Brand Identity

In 2017, MPC unveiled a parking payment app through Passport to provide on-street parkers with additional payment options. While the investment was minimal, the return has been significant in the form of lower processing fees and customer satisfaction. The 2017 parking access revenue control upgrades and LPR implementation have improved operational efficiency and provides improved system reliability for off-street parkers.

- The Missoula Parking Commission has been honored with the following awards:
 - 2010 – The Missoula in Motion Best Practices Award Finalist was awarded to the Downtown Streetscape Consortium, which included the MPC.
 - 2011 – The MPC was honored by the International Downtown Association highlighting the positive community benefits that can occur when a progressive parking and transportation management organization works collaboratively with downtown management groups, urban renewal agencies and the overall community.
 - 2012 – The MPC was awarded the 2012 International Parking Institute (IPI) Award of Merit for its “Integrated Downtown Master Plan and Parking.”
 - 2014 – The MPC was awarded the IPI’s Award of Excellence for Parking Structure Architectural Design for a 380-space, four-story structure wrapped in retail and public art. The structure features the largest solar installation in the State of Montana.
 - 2015 – The MPC was among the first programs in the country to achieve the International Parking Institute’s new Accredited Parking Organization (APO) Program designation.
 - 2018 - The MPC was recertified by the IPMI as an accredited organization.



New Development Projects

Riverfront Triangle Urban Renewal District

Much of the “Fox Site” was given to the City in the mid-1980’s. Since that time, tax increment finance (TIF) funds have demolished structures, improved utility service and removed an early 20th century buried landfill. A \$105 million redevelopment on this corner of the Riverfront Triangle Urban Renewal District (URD) is currently proceeding. The private Hotel Fox project will be a seven-floor, 195 room upscale hotel with restaurants, meeting rooms and other amenities along with three floors of residential condominiums. The City will own a large adjacent conference center and two floors of parking under the hotel/conference center. TIF funds matched to the amount of new taxes from the development will purchase the conference center.

Facing Orange Street just north of the conference center will be a new, 25,000-square-foot anchor retail space. Much of the remaining street frontage along Broadway and Owen streets will be occupied by another 10,000-plus square feet of boutique retail shops. Two new restaurant spaces, both with outdoor seating that directly overlooks the Clark Fork, are also part of the plan.

The current plan also includes 200 one- and two-bedroom units of workforce, market-rate and senior rental housing, plus 50 one- and two-bedroom for-sale condominium units.

Investment Notes:

- \$16.5M public TIF investment
- \$8.5M parking revenue investment
- \$83M private investment
- \$1.5M new annual tax revenue (estimated)

PARKING

New parking areas will be key to serving the many people working, living and visiting the Riverfront Triangle redevelopment. Plan calls for at least two underground parking garages (beneath the conference center hotel and the residential buildings), plus one above-grade structure. In total, approximately 1,000-plus new parking spaces — enough to accommodate not just the businesses and residences in the Riverfront Triangle development, but also the general public when visiting downtown,

will be provided. The Riverfront Triangle project will transform the equivalent of three city blocks of Missoula’s core into a hub of community and commerce.



Other Program Accomplishments

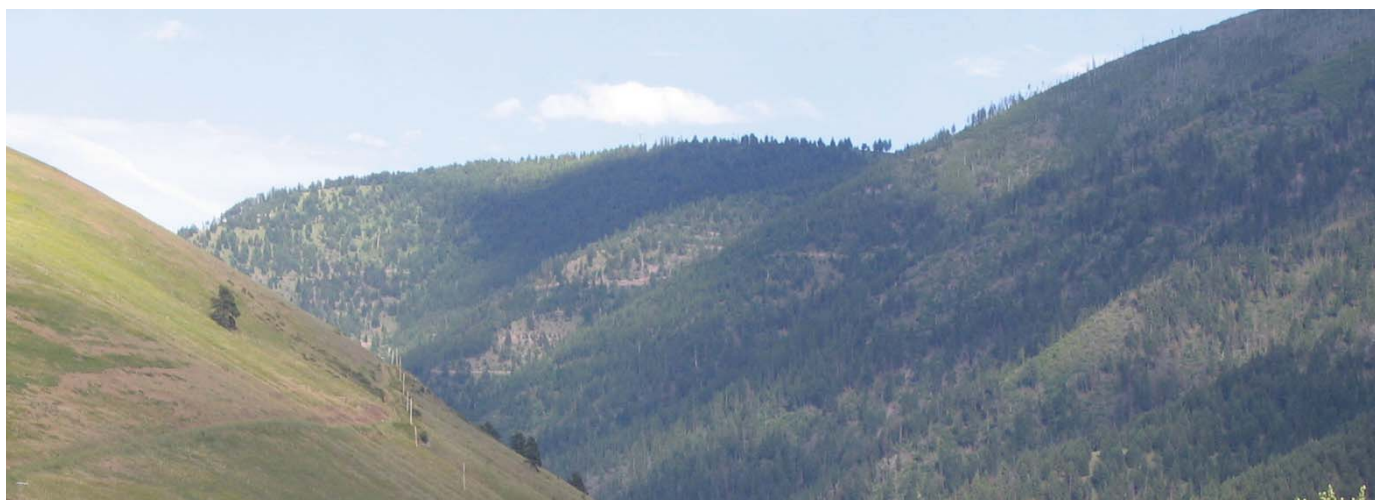
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- The positive and intimate relationship of the MPC to the Missoula Downtown Association (now part of the Downtown Missoula Partnership), the Missoula Redevelopment Agency, and the downtown Business Improvement District formed the basis of a cohesive and well-integrated downtown partnership that together have achieved many important projects that help to make Missoula the great downtown that it is today.
- In addition to the agencies noted above, the MPC worked closely with the Missoula Downtown Foundation, the University of Montana, Hellgate High School, St. Patrick Hospital, the Hip Strip Neighborhood, Missoula in Motion, Mountain Line (local transit agency), and the Missoula Ravalli Transportation Management Association (MRTMA) to create a comprehensive and integrated access management network in Downtown Missoula. This type of consistent, high level engagement helped ensure that the parking program was connected, better understood and respected as a community partner and leader. The MPC was not only engaged in the planning and operational dimensions of downtown management, but they were also an effective contributor in the community and economic development arenas as well.
- The following nine primary action plan items formed the MPC parking strategic plan action item list. All of these items have been implemented.
 - Implement New Parking Facility Planning and Development
 - Adjust Parking Rates and Fines
 - Invest in New Parking Technology
 - Continue to Support and Invest in Multi-modal Access Strategies
 - Develop More Open and Collaborative Public Processes
 - Focus on Economic Development Support Strategies
 - Implement Recommended Retail Parking Strategies
 - Pursue Parking Program Growth/Expansion
 - Create a New Parking Program Brand Identity
- In 2017, MPC unveiled a parking payment app through Passport to provide on-street parkers with additional payment options. While the investment was minimal, the return has been significant in the form of lower processing fees and customer satisfaction. The 2017 parking access revenue control upgrades and LPR implementation have improved operational efficiency and provides improved system reliability for off-street parkers.

Parking Supply/Demand Update 2019

Parking Supply/Demand Update 2019

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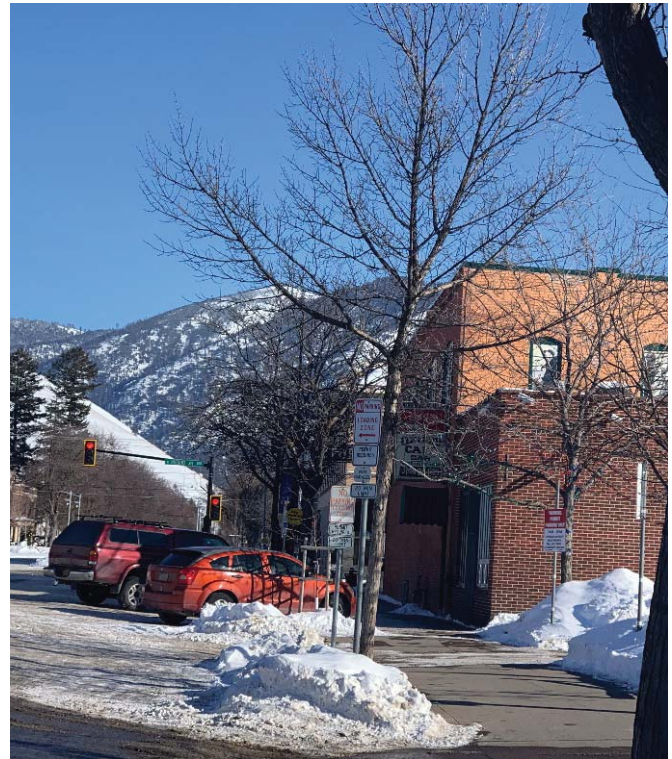
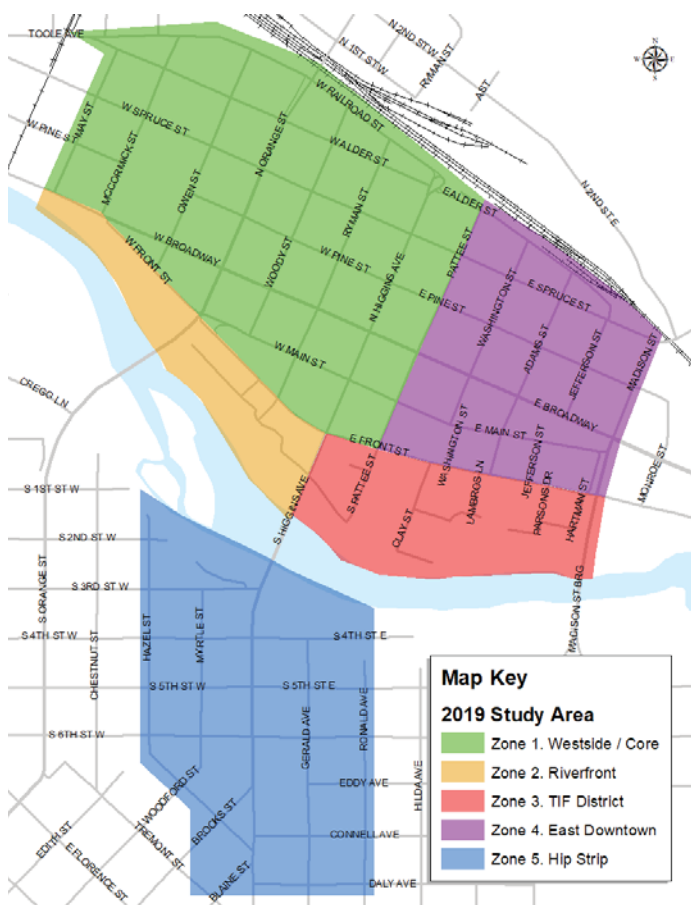
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Parking Inventory & Demand Update

During the week of March 4, 2019 Kimley-Horn and Associates conducted inventory and occupancy updates of the Downtown Missoula area, as well as the area south of Downtown commonly referred to as the Hip Strip. The Downtown study area is generally bounded by Railroad Street to the north, May Street to the west, Madison Street to the east, and the river to the south. The Hip Strip is generally bounded by the river to the north, Hazel Street to the west, Donald Avenue to the east, and Daly Avenue and Tremont Street to the south. Figure 1 below illustrates the study area boundary, as well as the five districts that will be discussed in greater detail throughout this report.

Figure 1. Study Area



Inventory

Parking inventory is classified into two primary categories, on-street and off-street. For this study, on-street inventories were further broken down by metered (short-term and long-term), time restricted (20-minute loading, 30-minute, 2-hour, and 4-hour), restricted access (ADA and permitted), and unrestricted. Off-street inventories were further broken down into publicly accessible (leased and hourly) and private facilities with use restricted to a specific category of users (i.e., patron parking for a specific destination or property).

Parking inventories were completed based on publicly available aerial images, and where possible, audited in the field based on observed parked vehicles and measurements. Where striping was not provided or visible, a measurement of 20 lineal feet for parallel and 9 lineal feet for perpendicular on-street spaces was used. In off-street facilities without visible striping, parking stalls were estimated at an average of 300 square feet. This estimate includes space for stalls as well as drive aisles and turning radii.

Table 1 provides a summary of the distribution of parking by area for parking inventories by type of supply.

Table 1. Inventory Summary by Type per District

	Westside / Core	Riverfront	TIF District	East Downtown	Hip Strip	Study Area
On-Street						
ADA	63	2	3	9	12	89
Permit	139	16	0	44	9	208
Unrestricted	615	5	158	358	877	2,013
4-Hour	0	0	0	0	10	10
2-Hour	59	0	0	48	84	191
Loading	53	4	2	20	6	85
30-Minute	24	0	0	3	13	40
Long-Term	97	0	0	25	0	122
Short-Term	587	35	41	167	6	836
Total On-Street	1,637	62	204	674	1,017	3,594
Off-Street						
Private*	1,819	209	294	493	734	3,549
Leased	793	223	162	102	87	1,367
Leased & Public	277	109	586	0	0	972
Total off-Street	2,889	541	1,042	595	821	5,888
TOTAL	4,526	603	1,246	1,269	1,838	9,482

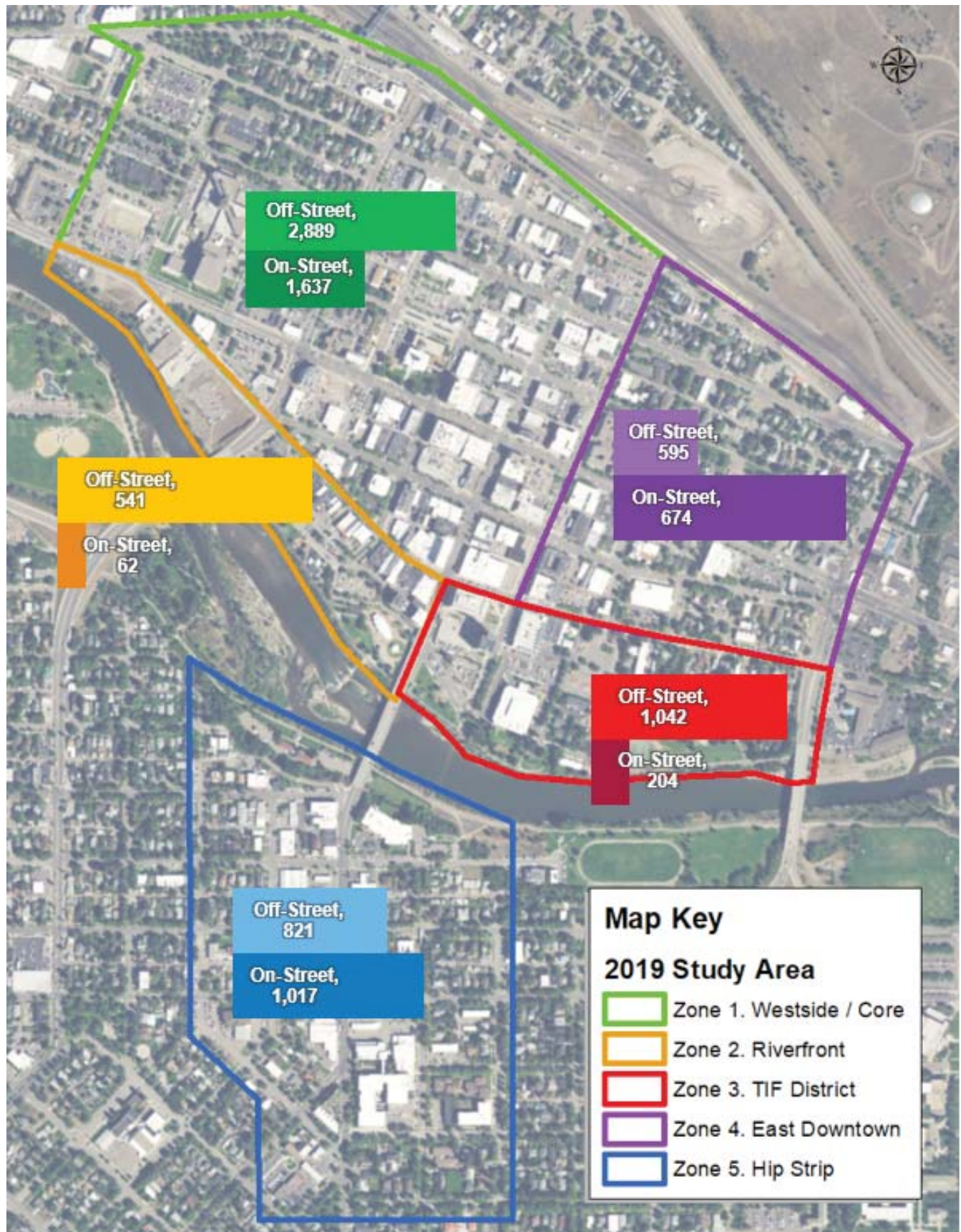
*Private facilities are not exhaustive of all private parking supplies within the study area. Facilities were accessed whenever possible, however, do not include any gated facility that could not be accessed by vehicle or on foot, nor does this include single family homes.

The Greater Downtown study area has a total supply of 9,482 parking spaces that were included in this update. Of these, 3,594 parking spaces (38%) are located on-street and 5,888 (62%) are located off-street.

As shown in **Table 1** and **Figure 2**, the greatest supply of parking for both on-street and off-street occurs in the Westside / Downtown Core with 48% of the overall study area supply. The Hip Strip is the second largest area of parking with 19% of the system’s parking supply, followed by the East Downtown and TIF Districts both with approximately 13% of the total supply (1,269 and 1,246 relatively). The Riverfront district has the smallest quantity of parking supply for the study area with 6%.



Figure 2. Parking Supply by District



Existing Parking Demand

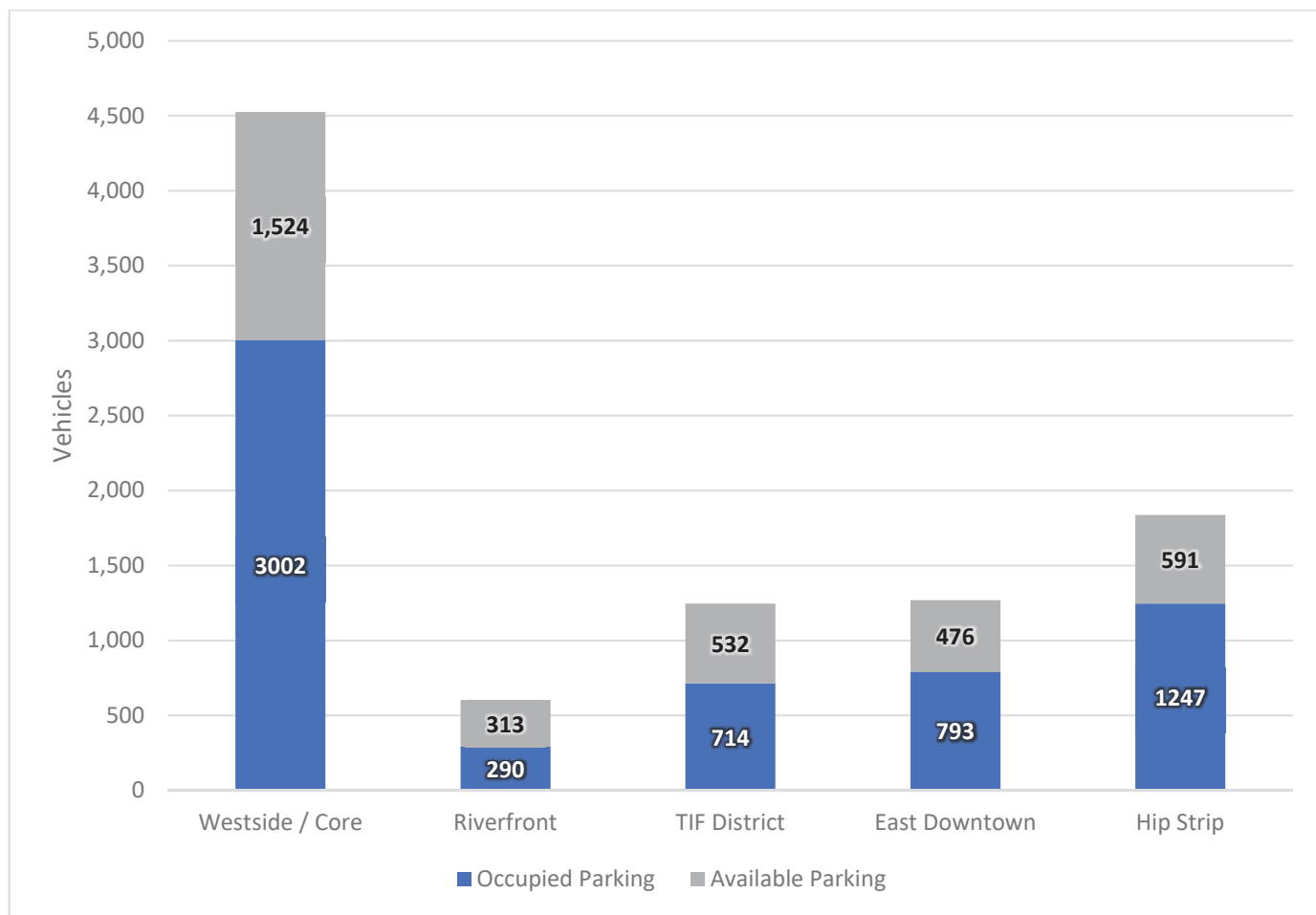
After updating parking inventories for each of the districts, Kimley-Horn and Associates conducted occupancy surveys throughout the week of March 4, 2019 to determine the number of parking spaces utilized during a typical peak period. The intent of this occupancy survey is to determine current parking demands by district and type. This level of data can inform future parking demand projections and potential parking and transportation demand management strategies discussed later in this report.

Based on past parking studies of the area, the typical peak period was identified as occurring during 10:00 AM and 2:00 PM on a weekday. Each on-street and off-street facility was counted once during this peak period on the days data collection was conducted. Counts were completed per facility, with facilities

identified as on-street, private off-street, leased off-street, or leased and public mixed off-street.

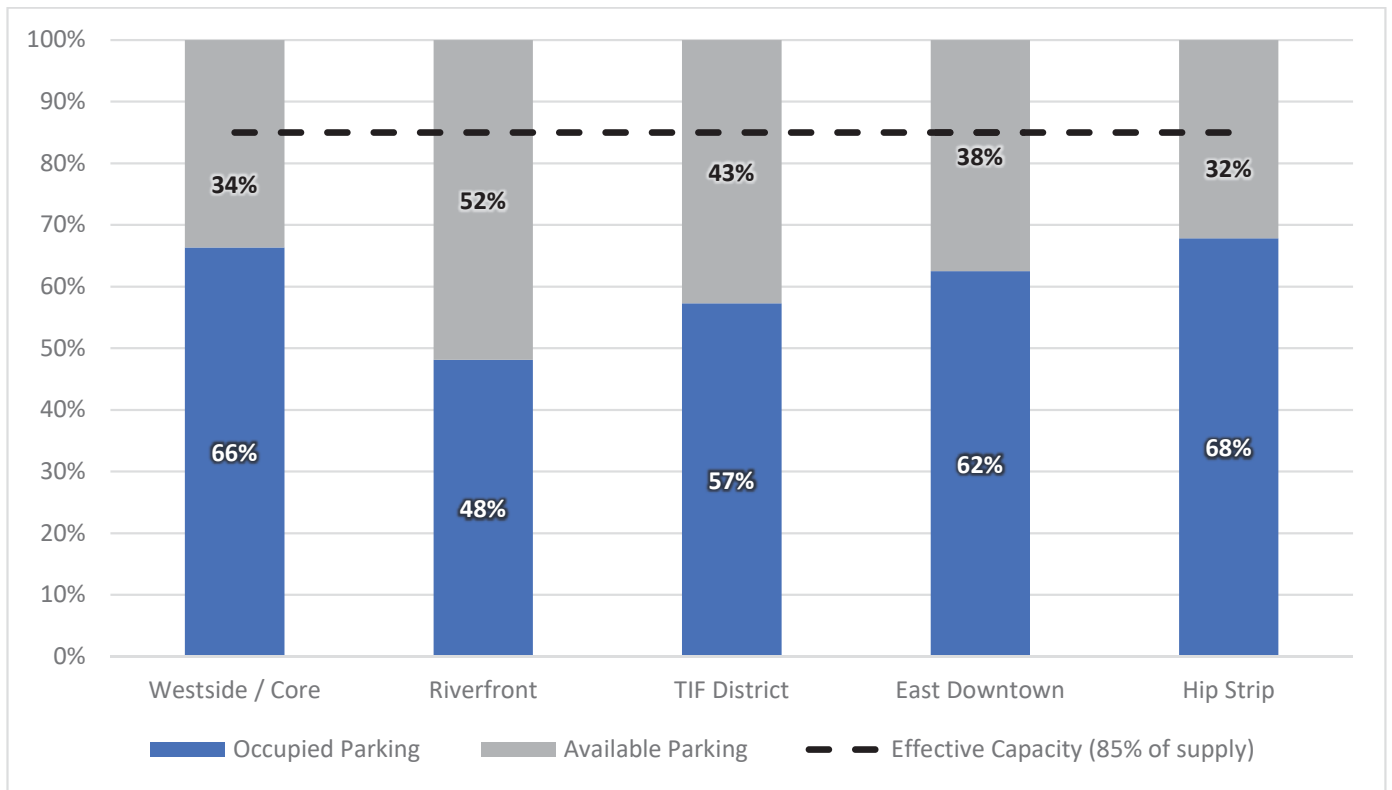
The study area was observed to operate at approximately 64% occupancy overall. On-street parking was the highest utilized facility type at 71%, absorbing 2,116 vehicles of the 6,046-total observed within the study area. **Figure 3** summarizes parking utilization by district during the survey based on the number of vehicles observed. **Figure 4** summarizes parking utilization by district during the survey based on the occupancy of the districts.

Figure 3. Existing Parking Demand per District



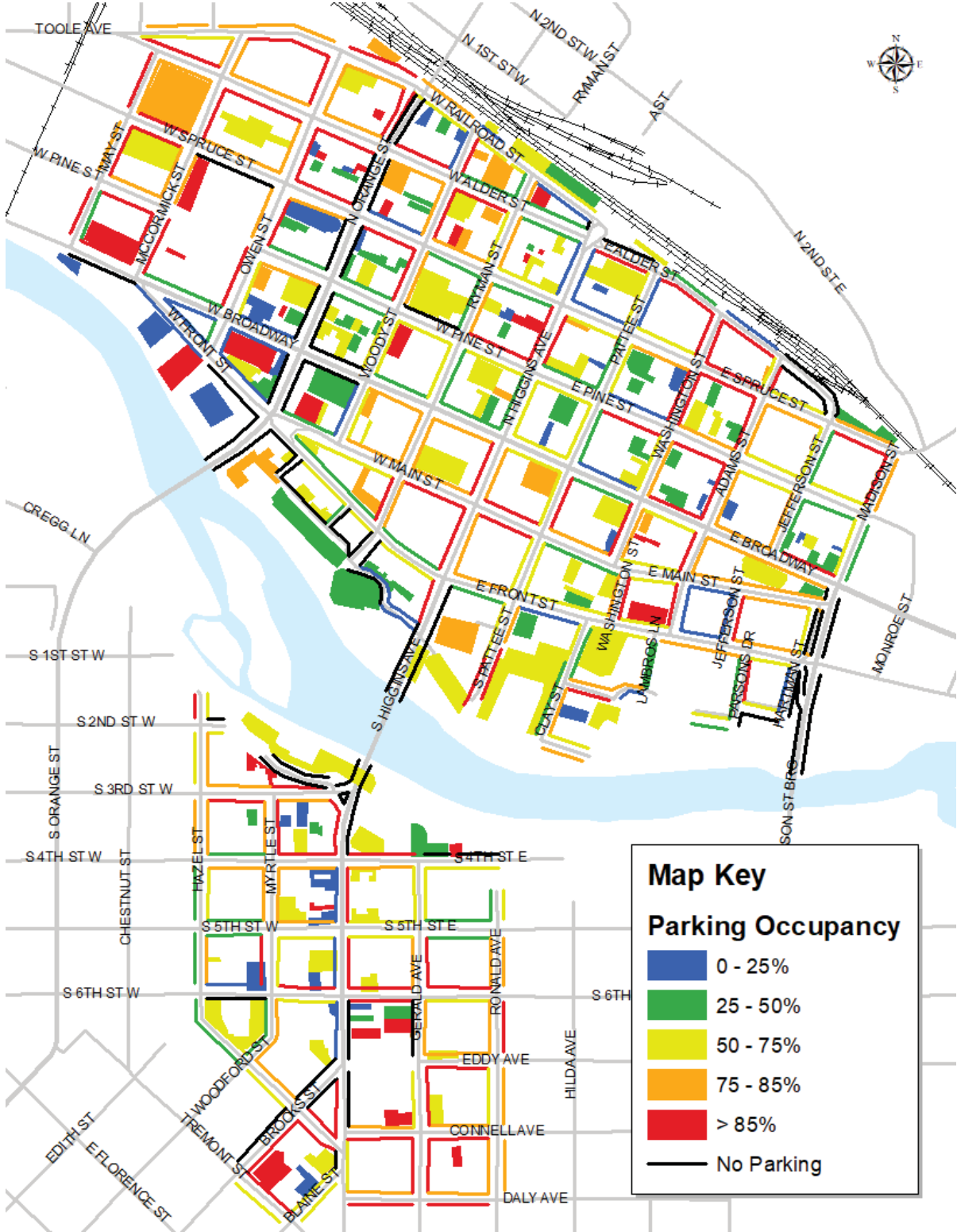
A parking system is considered at Effective Capacity when it is 85% occupied during the peak time of day. When occupancies reach 85%, it becomes difficult to find the remaining open parking spaces. At this level occupancy, those looking for parking will have to “hunt” to find available spaces, which adds to traffic congestion, greenhouse gas emissions, and general frustration at the lack of readily available parking.

Figure 4. Existing Parking Utilization per District



As shown in the graph above, parking within the study area is currently underutilized, even when analyzed at the district level. **Figure 5** provides a map of all of the parking facilities, both on-street and off-street, included in the parking survey. This map summarizes the occupancy of each facility. In this sections that follow, each district is analyzed and discussed in greater detail.

Figure 5. Existing Parking Utilization Map, Study Area



Westside / Core Downtown District

The Core Downtown District not only has the largest supply of parking, but also was observed to absorb the greatest quantity of parking demands with 3,002 vehicles or approximately 50% of 6,046 vehicles within the parking system during the survey. **Figure 6**

summarizes the available on-street parking supply within the district. As summarized in **Table 2**, the district accommodates the greatest quantity of demand in on-street facilities, followed closely by private off-street facilities.

Figure 6. On-Street Parking Supply Breakdown, Westside / Core Downtown District

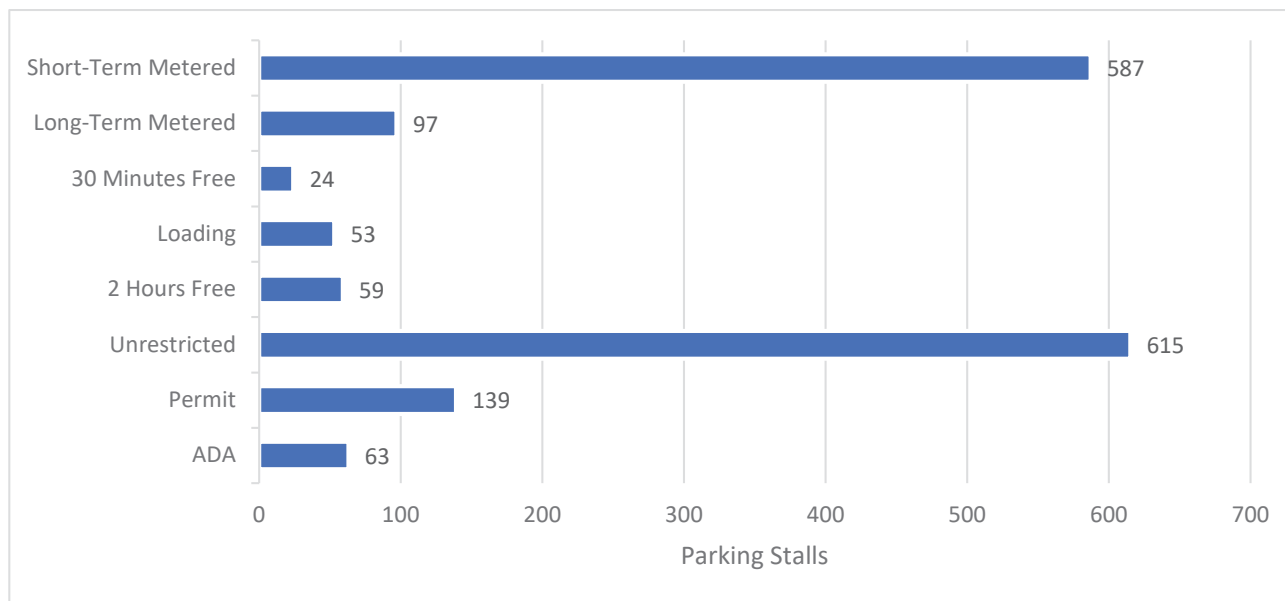


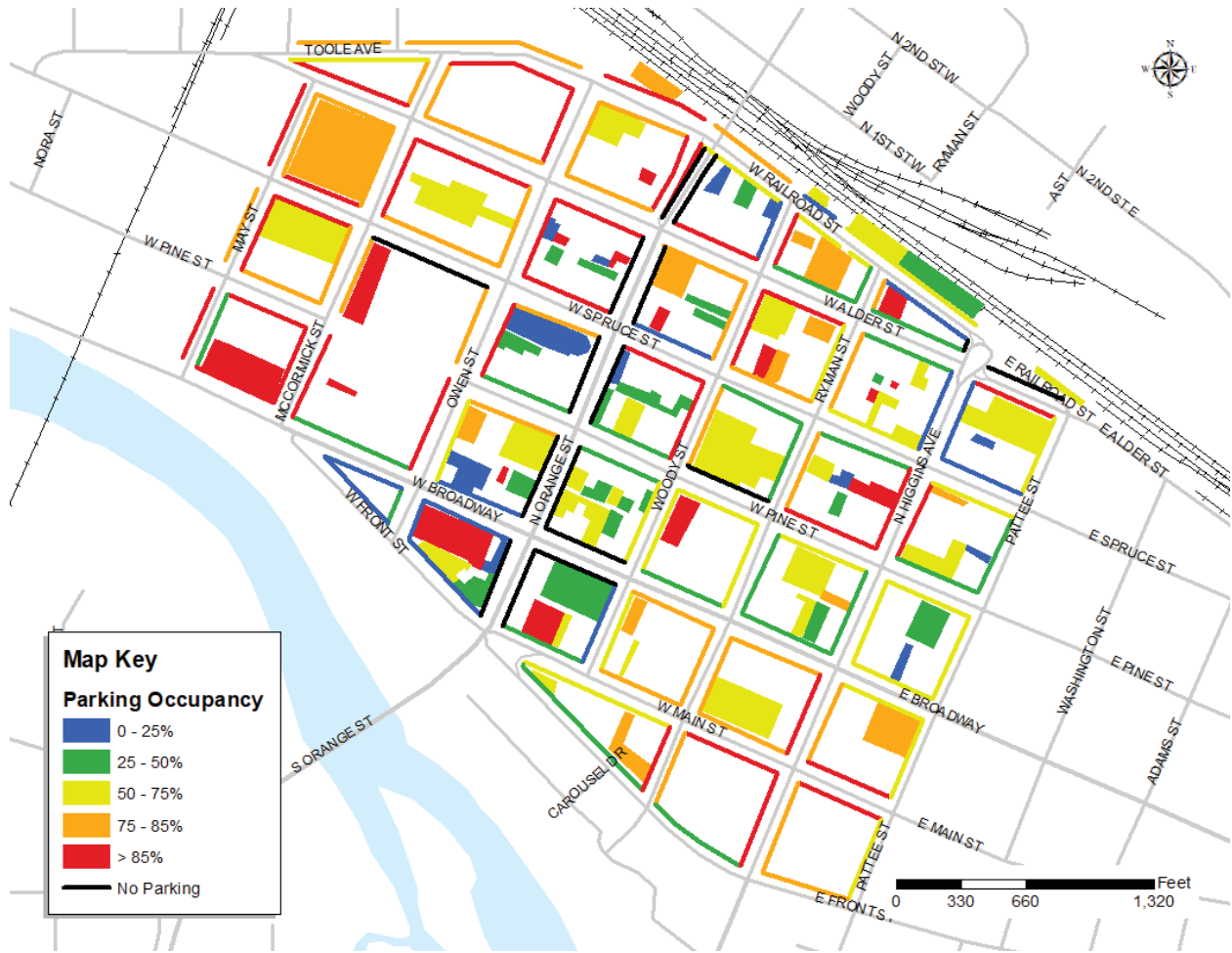
Table 2. Westside / Downtown Core Parking Summary

Facility Type	Supply	Demand	Occupancy	Surplus (Deficit)
On-Street	1,637	1,135	69%	502
Off-Street				
Private	1,819	1,127	62%	692
Leased	793	544	69%	249
Leased & Public	277	196	71%	81
Total	4,526	3,002	66%	1,524

The parking demand throughout the Westside / Core Downtown District is fairly well distributed throughout the area. There were areas of localized increased demand during the survey, however this may be contributed to the sub-zero temperatures. **Figure 7** provides a closer look at the utilization per facility within the Westside / Core Downtown District. As shown, parking facilities within the vicinity of McCormick Street and Pine Street, as well on-street

extending up to the area of Railroad Street and Orange Street are well utilized. However, while these facilities are approaching and exceeding Effective Capacity, there does exist available public parking supplies with a comfortable walking distance in all instances. A generally accepted comfortable walking tolerance for the average individual is a quarter mile or approximately 1,320 feet.

Figure 7. Existing Parking Utilization Map, Westside / Core Downtown District



Riverfront District

The Riverfront District has the smallest supply of parking, broken down by type in **Figure 8**, and was observed to absorb the lowest quantity of parking demands with 290 vehicles or approximately 5% of

6,046 vehicles within the parking system during the survey. As summarized in **Table 3**, the district has few on-street spaces with most of its supply located off-street equally between private and publicly accessible lease and hourly spaces.

Figure 8. On-Street Parking Supply Breakdown, Riverfront District

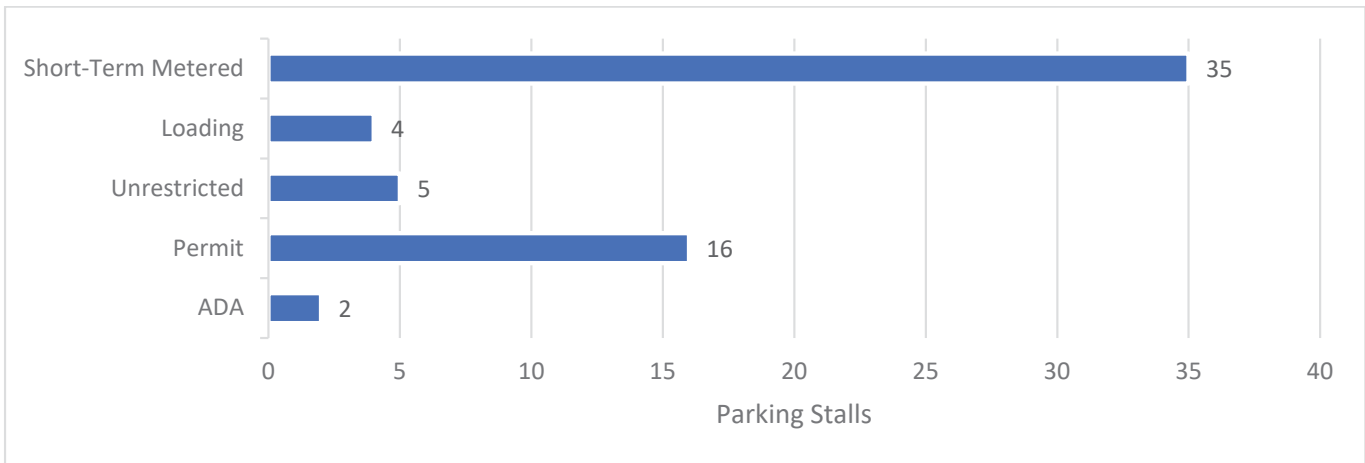


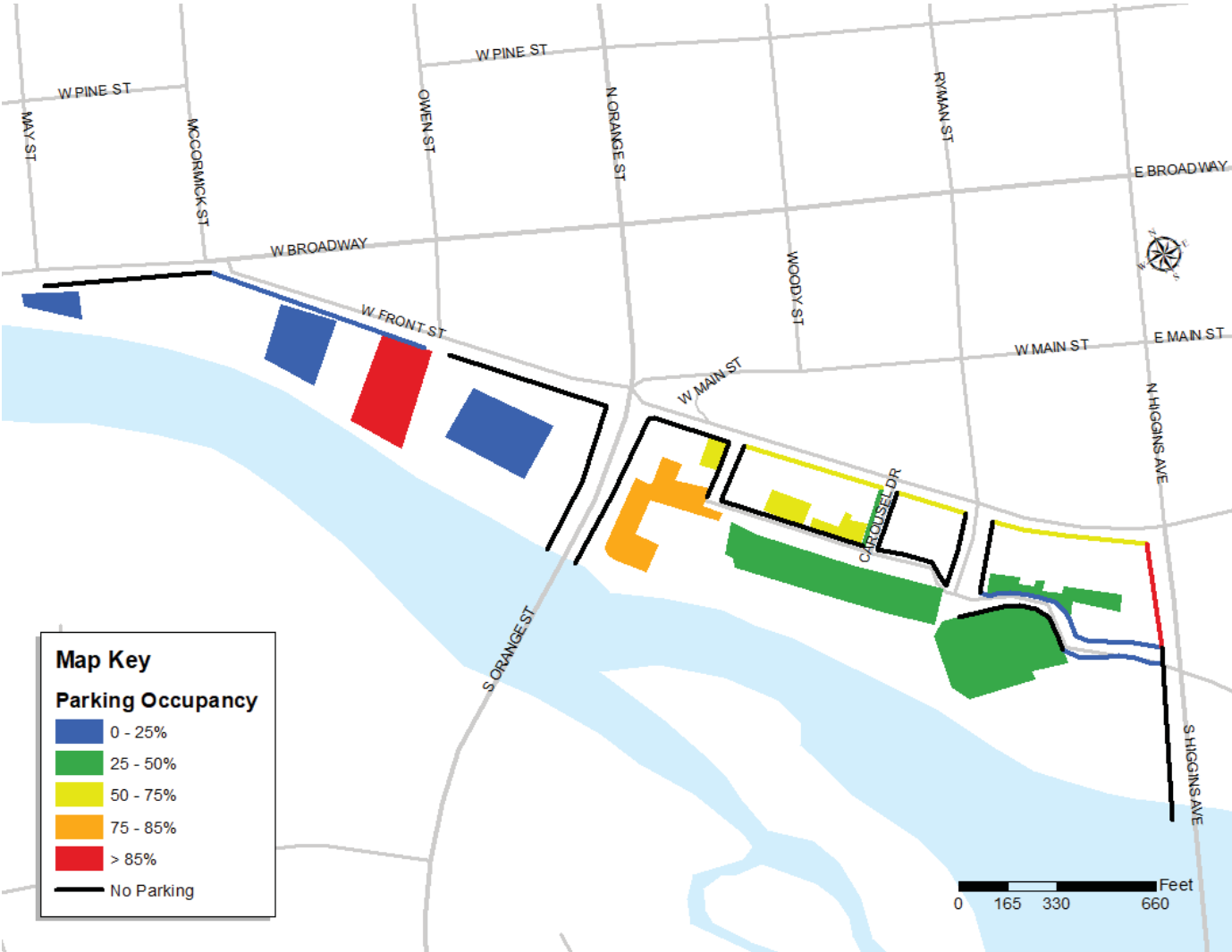
Table 3. Riverfront Parking Summary

Facility Type	Supply	Demand	Occupancy	Surplus (Deficit)
On-Street	62	31	50%	31
Off-Street				
Private	209	152	73%	57
Leased	223	76	34%	147
Leased & Public	109	31	28%	78
Total	603	259	48%	313

The parking demand within the Riverfront District is predominantly absorbed in off-street private parking facilities, as even with only approximately 62 on-street spaces, these facilities were observed to operate at 50% utilization. **Figure 9** provides a closer look at the utilization per facility within the Riverfront District. As shown, the three large public facilities within the district, the Caras, West Front Street, and New Park Lots were all observed below 50% occupied. The SPH & WMC employee structure located along Front Street is approaching capacity at 91% occupied, however

an additional surface lot providing 48 spaces for SPH & WMC employees is located just to the west was closed off and fully vacant. Combining these two facilities dedicated to the same users results in a utilization of 54% of SPH & WMC facilities. It is unclear, however, what the intention is of closing the 48-space surface lot, and if this closure is temporary or permanent. A permanent closure could have impacts on area public supplies and should be monitored for spillover impacts.

Figure 9. Existing Parking Utilization Map, Riverfront District



TIF District

The TIF District has a considerable supply of parking relative to the density of the land uses within the district. As summarized in **Table 4**, the district offers a substantial portion of the parking supply as publicly accessible through leased and public off-street and on-street parking, which is broken down by type in **Figure 10**. Notably, 158 of the 204 on-street parking stalls are unrestricted and unmanaged by pricing or time limits.

Figure 10. On-Street Parking Supply Breakdown, TIF District

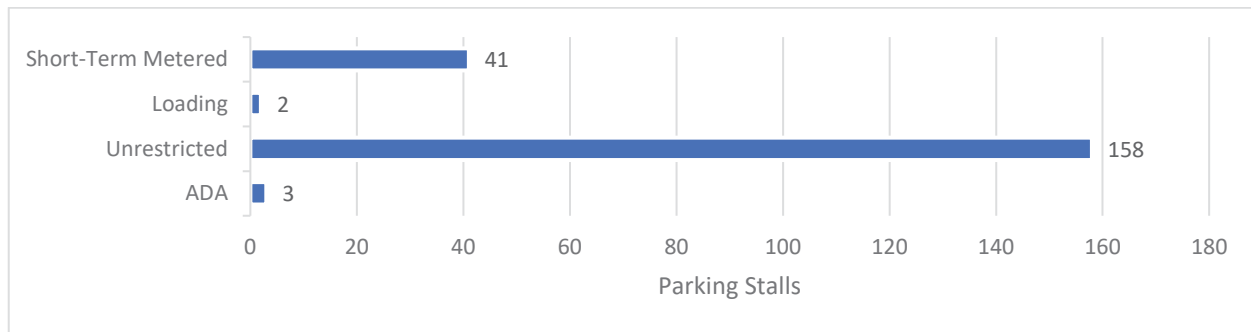


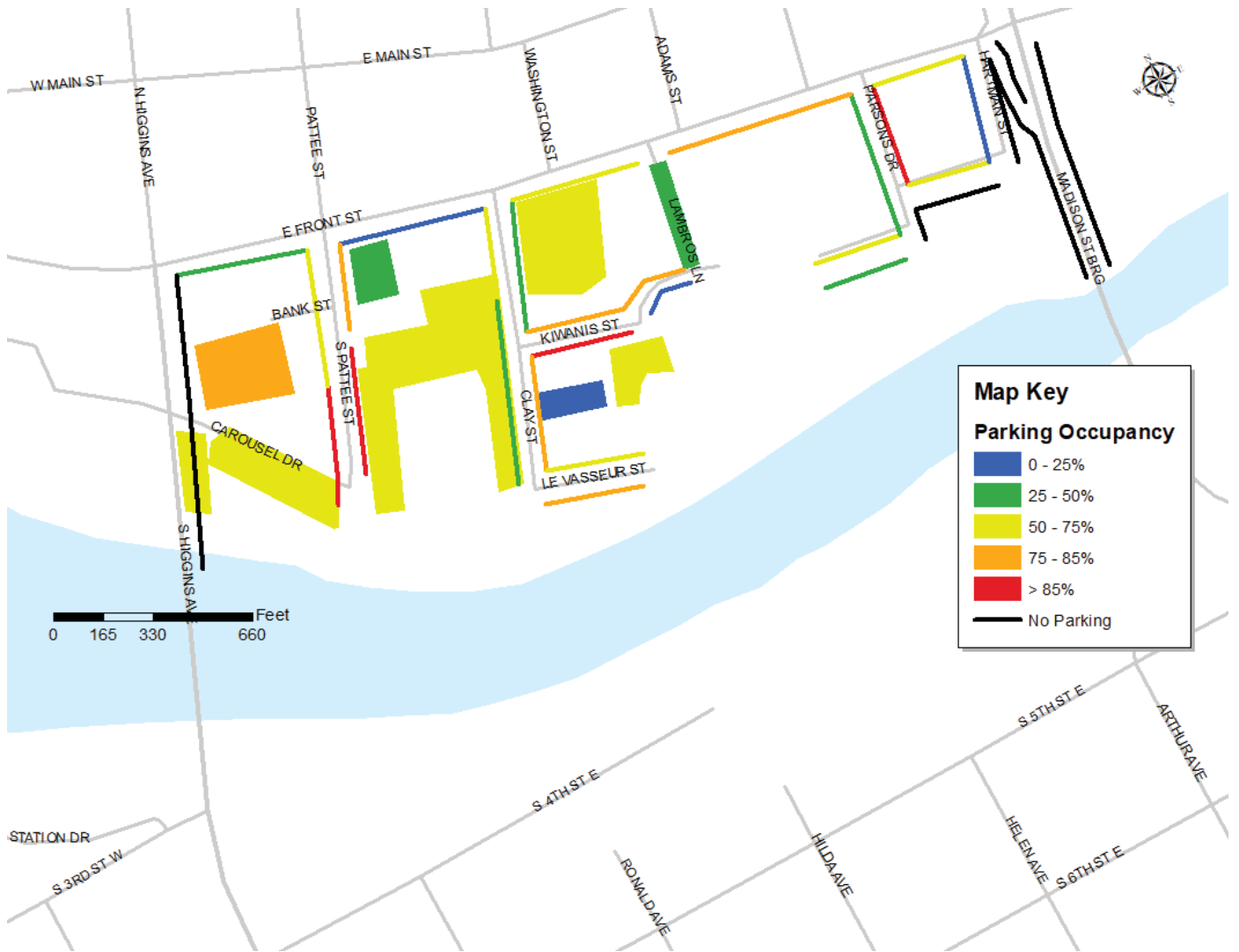
Table 4. TIF District Parking Summary

Facility Type	Supply	Demand	Occupancy	Surplus (Deficit)
On-Street	204	127	62%	77
Off-Street				
Private	294	142	48%	152
Leased	162	90	56%	72
Leased & Public	586	355	61%	231
Total	1,246	714	57%	532

The parking demand within the TIF District is well distributed with most facilities, both on-street and off-street, falling in the 50-75% occupied range. **Figure 11** provides a closer look at the utilization per facility within the TIF District. As shown, several on-street facilities are experiencing higher utilization than adjacent block faces. Given the type of on-street parking within these facilities, short-term meters along Pattee Street and unrestricted parking along Kiwanis

Street and Parsons Drive, and availability of similar and less restricted parking within adjacent facilities, these heightened demands are likely localized due to the extreme weather experienced during the survey process or, in more residential areas, due to on-street storage of personal vehicles.

Figure 11. Existing Parking Utilization Map, TIF District



East Downtown District

Parking supplies within the East Downtown District are relatively equally proportioned between on-street, which is broken down by type in **Figure 12**, and off-street. As summarized in **Table 5**, parking supplies for this area do not include any off-street paid hourly

parking. Off-street facilities are comprised of private facilities serving specific commercial and residential destinations and five relatively small leased surface lots, three of which appear to serve tenants of multifamily housing units.

Figure 12. On-Street Parking Supply Breakdown, East Downtown District

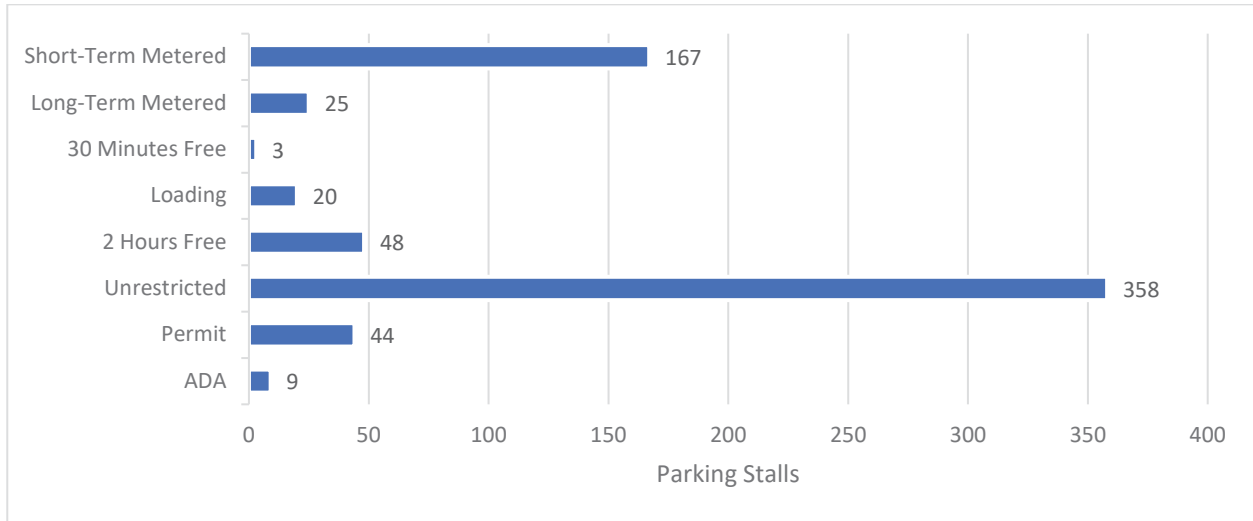


Table 5. East Downtown District Parking Summary

Facility Type	Supply	Demand	Occupancy	Surplus (Deficit)
On-Street	674	478	71%	196
Off-Street				
Private	493	257	52%	236
Leased	102	58	57%	44
Leased & Public	0	0	NA	0
Total	1,269	714	62%	476

The parking demand within the East Downtown District shows a high utilization of on-street parking with approximately 67% of total demand within the area absorbed by on-street facilities. **Figure 13** provides a closer look at the utilization per facility within the East Downtown District. As shown in the utilization map, on-street facilities throughout the study area are approaching and exceeding effective capacity. While many of these facilities are located close to underutilized facilities, there is minimal

public off-street parking and no public, hourly off-street parking. Additionally, many of the facilities throughout the study area were inaccessible due to excessive snow accumulations. For instance, the on-street parking along the north block face of Alder Street between Washington Street and Adams Street shows it is 0% occupied, however accessing these spaces during the time of the survey would require a vehicle with a higher clearance and 4-wheel drive.

Figure 13. Existing Parking Utilization Map, East Downtown District



Hip Strip District

The Hip Strip District has a relatively higher supply of on-street parking versus off-street parking when compared to other districts. This is likely attributable to the more frequent occurrence of single-family housing within this district, parking for which is not included in this study. As summarized in **Table 5**, parking supplies for this area do not include any off-street paid hourly parking. Aside from area

immediately adjacent to the high school in the area roughly bounded by 6th Street to the north, Connell Avenue to the south, Higgins Avenue to the west, and Gerald Avenue to the east, as well as the concentration of commercial properties in the northwest corner of the district and along Higgins Avenue, on-street parking is largely unmanaged throughout the residential areas of the district.

Figure 14. On-Street Parking Supply Breakdown, Hip Strip District

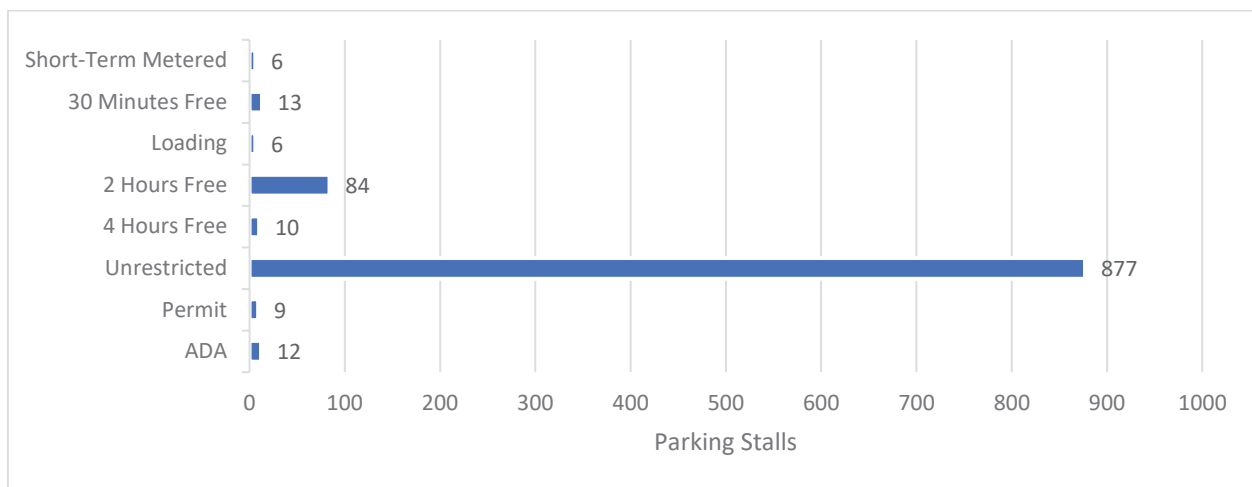


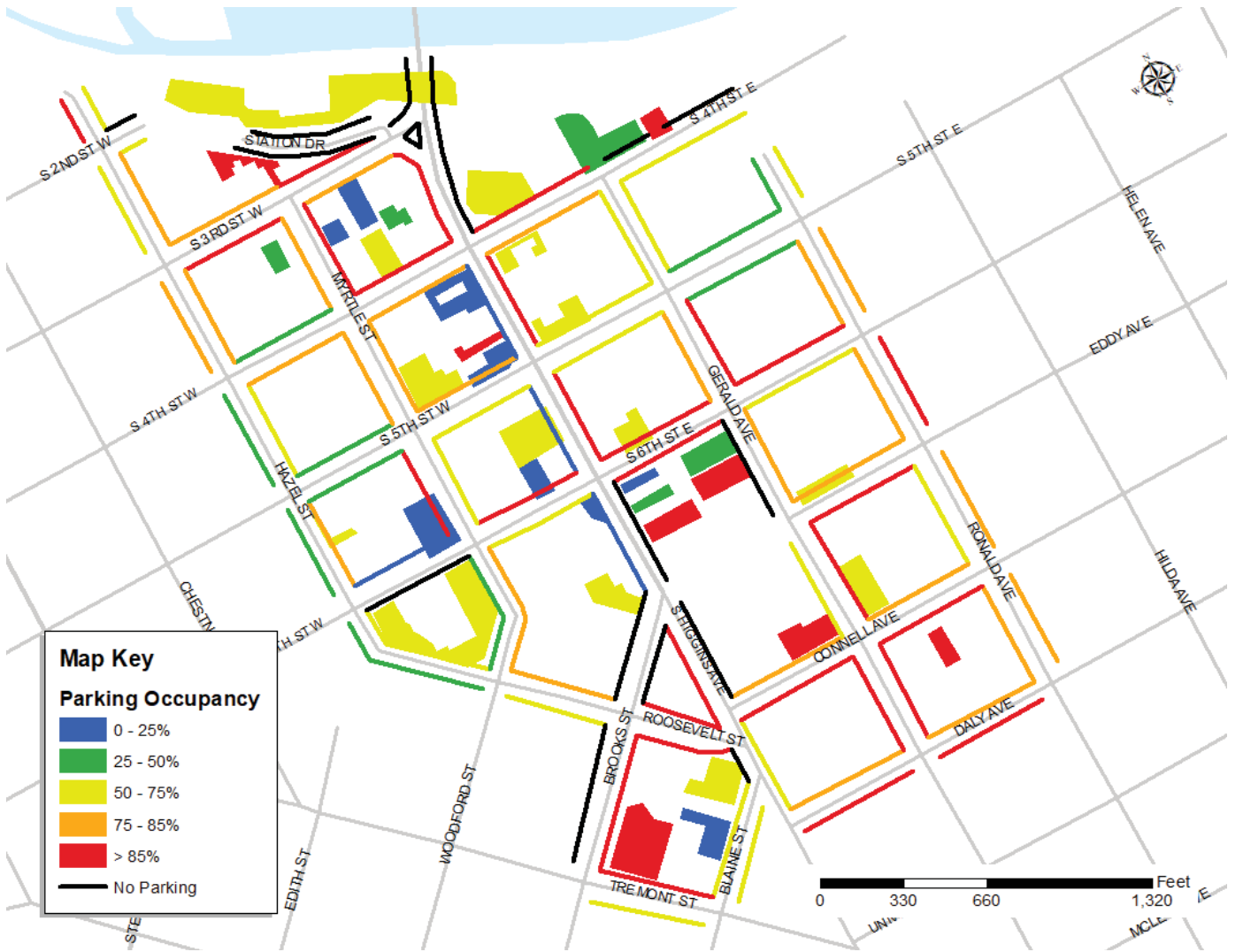
Table 6. Hip Strip District Parking Summary

Facility Type	Supply	Demand	Occupancy	Surplus (Deficit)
On-Street	1,017	770	76%	247
Off-Street				
Private	734	438	60%	296
Leased	87	39	45%	48
Leased & Public	0	0	NA	0
Total	1,838	1,247	68%	591

Parking demands within the Hip Strip were observed to experience pockets of localized high demand throughout the district. As shown in **Figure 15**, on-street facilities throughout the study area are approaching and exceeding effective capacity. However, many of these facilities are located within a comfortable walking distance to facilities with available space and comparable restrictions. While

off-street parking was overall underutilized within the district, eight private facilities were observed to operate at or above effective capacity during the survey. These facilities included Bernice’s Bakery, the Water Wise Garden lot, Sigma Nu, St. Paul Lutheran Church, Edge of the World, and three of lots that are immediately adjacent to the high school.

Figure 15. Existing Parking Utilization Map, Hip Strip District



Duration and Turnover

Vehicle duration and turnover data was also a part of the analysis in a smaller sub-area to determine how long vehicles are staying in the area. The data for this analysis is based on the City’s available transactions from their meters and pay-by-phone application, which is operated by Passport. The analyses that follow utilize a sample meter area roughly bounded by Broadway Street to the North, Front Street to the south, Pattee Street to the east and Ryman Street to the west, and consisting of all on-street facilities as shown in **Figure 19**.

Based on review of reports of license plate recognition reads and notes provided by Downtown Missoula parking enforcement operations, enforcement throughout the study area is consistent with predictable patterns and routing. By conducting enforcement on sporadic scheduling and altering routes prevents the public from learning the enforcement pattern. This enables focused enforcement of time limited areas that correlates to posted restrictions (i.e. routing ambassadors to 2-hour limited areas every two hours, as opposed to twice a day over an 8-hour enforcement day). Sporadic enforcement routing increases voluntary compliance with parking policies and encourages the use of appropriate long-term parking facilities. Based on current patterns, employees within the target area may identify a consistent time of day during which a parking fee may be allowed to lapse.

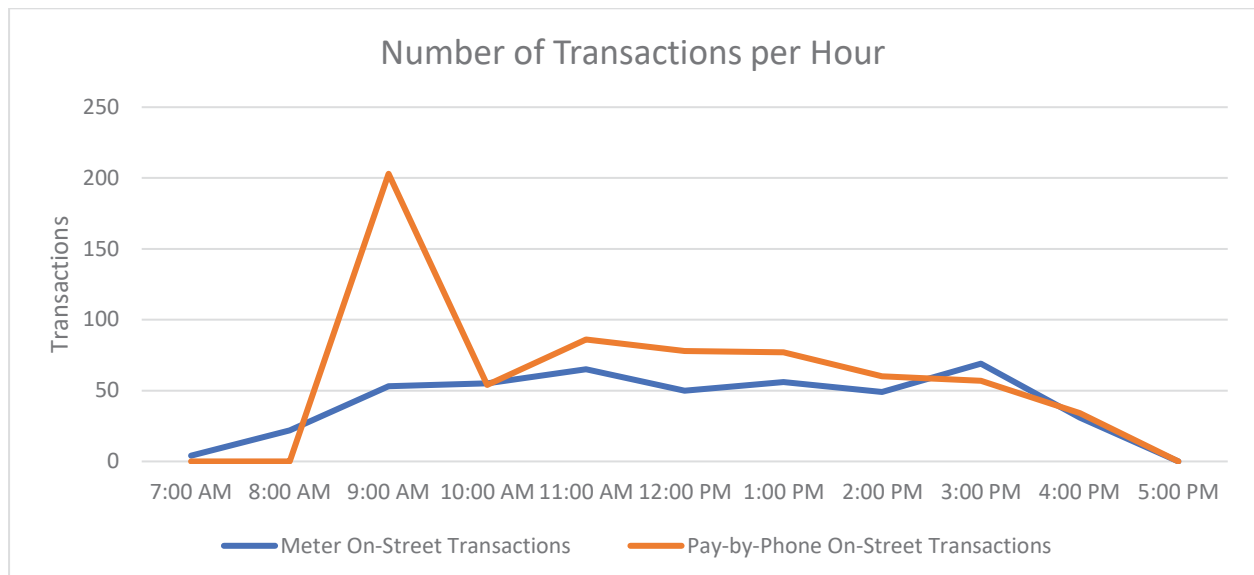
Enforcement labor is also supplemented by technology to improve efficiencies. The City is utilizing

pay-by-plate and license plate recognition (LPR) equipment to streamline enforcement practices. Review of citation data may alert enforcement officers to areas of increased violations based on daily or time of day trends. Additionally, mobile payment zoning is currently based on the type of transaction. Theoretically, a patron that parks and pays for long-term parking at the west block face of Ryman Street south of Alder Street may move their vehicle to the east block face of Washington Street south of Broadway and continue parking on the same payment. By identifying mobile payment zones to the block face, vehicles cannot take advantage of this sort of gaming of the system.

On-street meters do not have a time limit restricting how long vehicles may stay parked. However, there is a progressive rate schedule for meter zones classified as “short-term,” where it becomes more expensive to park on-street the longer a vehicle is parked. “Long-term” zones have significantly reduced rates available in 5-hour and all-day durations. Long-term parking zones are only available for residents and employees within the area. Long-term on-street access is regulated via an authorization code through the pay-by-phone application. On-street parking is enforced 9:00am to 5:00pm Monday through Friday. The transaction data from these meters is used in the analyses below and is referred to as the metered parking.

The pay-by-phone application is available for short-term and long-term on-street spaces, as well as

Figure 16. On-Street Number of Transactions per Hour by Payment Type



in select off-street locations. Enforcement for on-street payment coincides with meter enforcement. Off-street pay-by-phone locations are enforced from 8:00am until 5:00pm or 6:00pm, as posted per facility and dependent upon the specific lot or garage.

Transactional data is analyzed for the same date that occupancy counts were completed for this district, March 5, 2019, for continuity and to facilitate cross analysis of the data.

As shown in **Figure 16**, the number of meter transaction remains relatively consistent from 9:00am through the 3:00pm hour, ranging from 49 to 69 transactions per hour. Passport transactions, however, experienced a spike during the 9:00am hour followed by a dip during the 10:00am hour. This is likely from those spaces still occupied from 9am and earlier transactions, before turnover begins to be reflected in the transactions. After 10:00am the number of transactions then steadily decreases throughout the day through the 4:00pm hour.

Throughout the day, the majority of parking transactions cover what is commonly considered

short-term parking, with approximately 52% of vehicles parked for one hour or less, and 74% parked for 2 hours or less. Within the target area, as mapped in **Figure 19**, relatively few vehicles were observed to be parked on-street for long periods of time. As shown in **Figure 17**, only 15.5% of vehicles parked on-street stayed five hours or more, representing 147 of 946 transactions within this area on the date of analysis.

Unsurprisingly, however, transactions paid via mobile application and by cash or credit card at the on-street kiosk both decline in average duration as the day progresses. On-street parking is enforced from 9:00am to 5:00pm within the study area, with evenings after 5:00pm and weekends free. Perhaps due to programming of the mobile payment application, there are no recorded transaction prior to 9:00am for the day of the analysis. **Figure 18** summarize the average duration for each hour of the day that on-street payments were recorded.

Figure 17. On-Street Average Duration of Transactions per Hour by Zone Classification

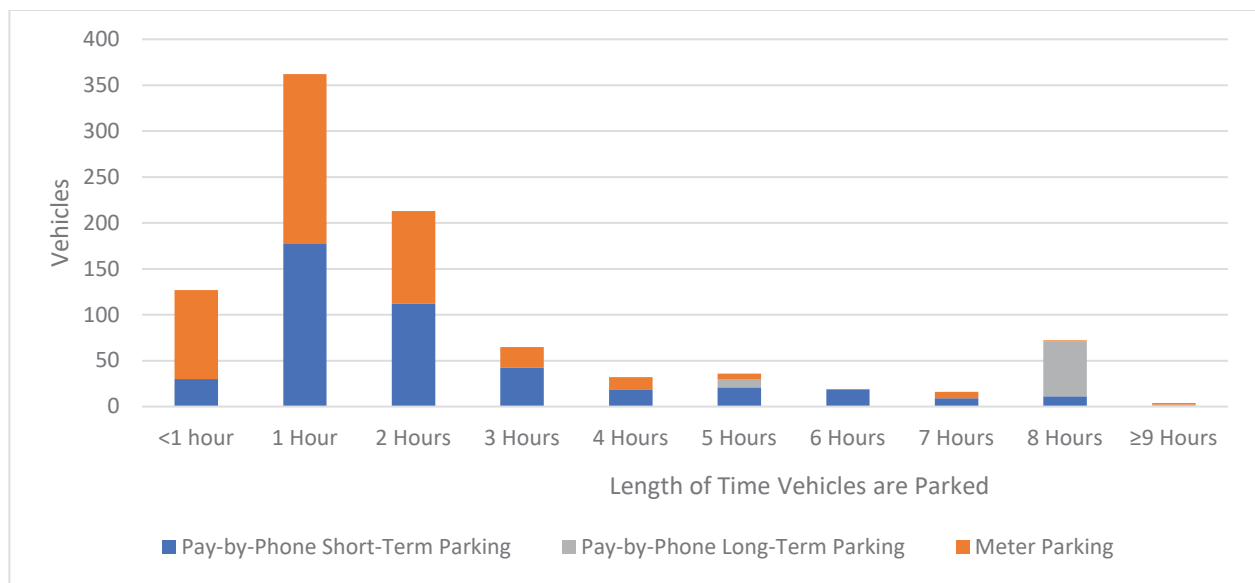
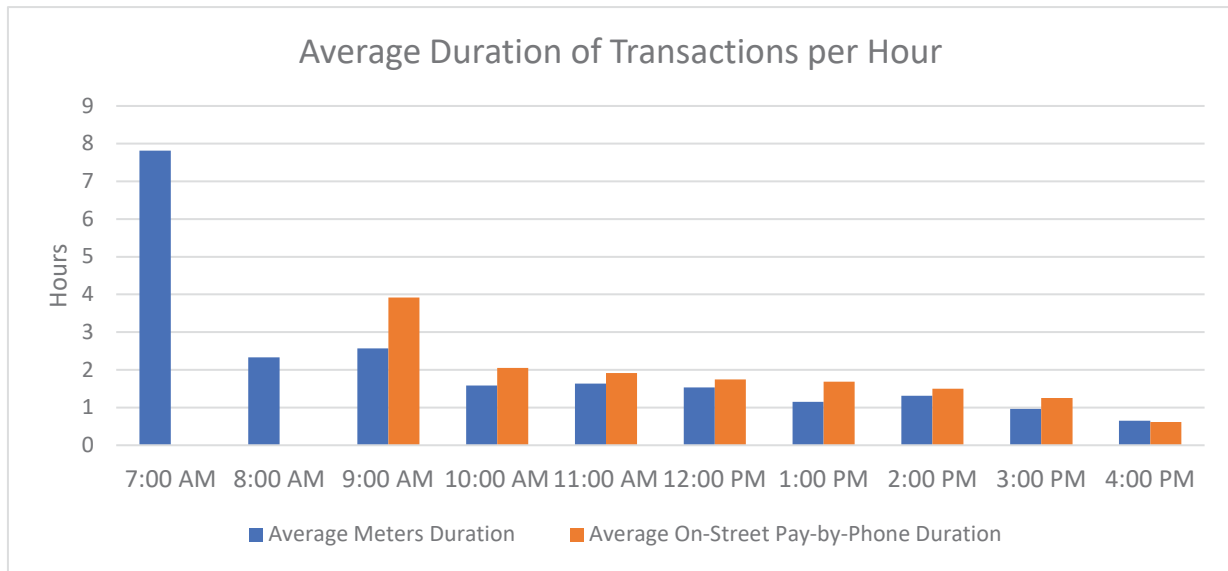


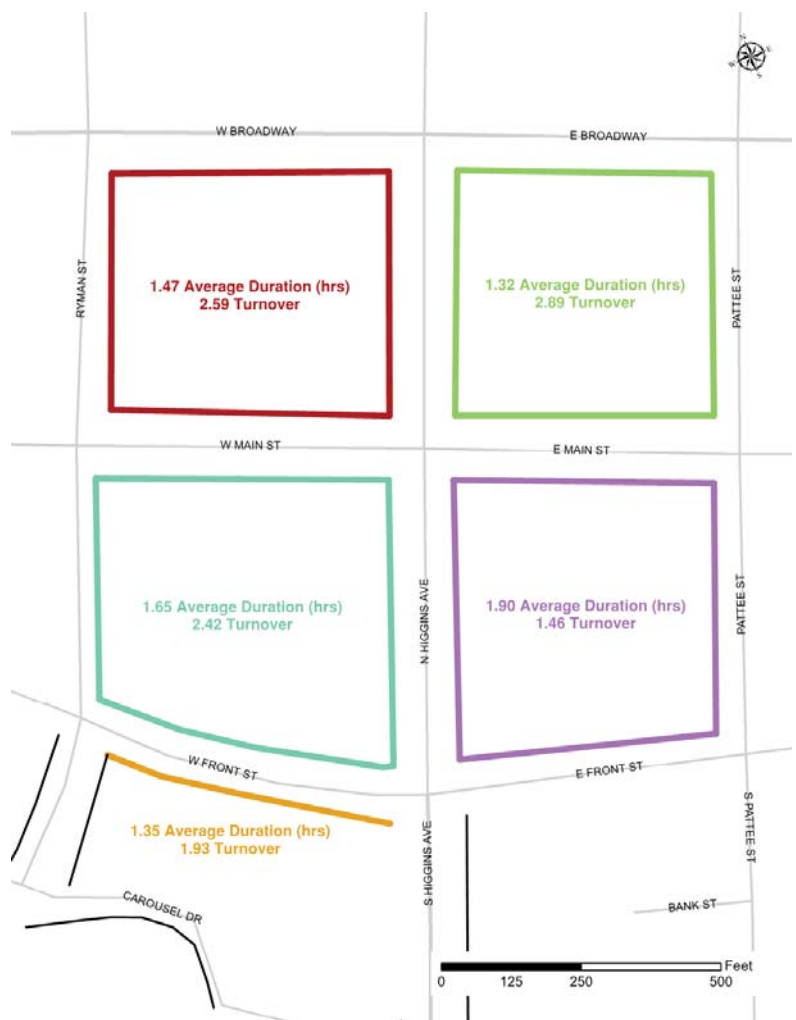
Figure 18. Average On-Street Duration of Stay per Hour by Payment Type



Within the specific target area, as shown in **Figure 19**, average durations for each block remained relatively consistent, ranging from one hour and twenty-one minutes to one hour and fifty-four minutes. It is important to note that the average duration of vehicles parking the study area may be slightly higher than what is reflected in the transactional data. This may be due to vehicles that overstay the paid value of their transaction.

Although the average duration within the area of interest is below two hours, the early morning occurrences of long durations have lasting impacts to the turnover of spaces that negatively impact their efficient use. To prevent short-term spaces from being occupied by a single vehicle throughout the day, and encourage long-term parkers to utilize appropriate facilities, consideration should be given to no longer allow parkers to renew parking on the same block. Additionally, to increase the effectiveness of the tiered pricing for short-term parking, establishing a maximum number of hours a vehicle may park, for instance 4 hours, will increase the efficient use of spaces within target areas.

Figure 19. Average Duration and Turnover per Block, Target Area



Note: Kimley-Horn was recently (within the past week) provided data on future downtown development from the Dover Kohl team. This data is being analyzed and will be used to develop future parking demand projections. This update to the supply/demand section will be forwarded upon completion.

Supply/Demand Adjustments

The data collection for the section above was conducted during the week of March 4th, 2019. All parties agreed that this was a “typical week” without any special events or other demand anomalies. However, it turned out to be a very cold week and there was concern that the cold temperatures did have an impact by driving down utilization.

To determine what level of impact the weather may have had on the counts, a set of additional counts of the MPC’s off-street parking assets was conducted on July 10th, 2019.

The table below compares utilization counts of the MPC’s off-street facilities in July to those taken in March.

MPC Off-Street Parking Counts 3/6/2019				
Structure/Lot	Supply	# of Open Spaces	% Available	% Occupied
Bank Street	137	32	23.3	76.7
Central Park	277	81	29.2	70.8
New Park	109	78	71.5	28.5
Park Place	301	150	49.8	50.5
Roam	148	48	32.4	67.6
Totals	972	389	40	60%

MPC Off-Street Parking Counts 7/10/2019				
Structure/Lot	Supply	# of Open Spaces	% Available	% Occupied
Bank Street	137	20	14.6	85.4
Central Park	277	63	22.7	77.3
New Park	109	0	0	100
Park Place	301	150	49.8	50.2
Roam	148	93	62.8	37.2
Totals	972	326	33.5	66.5%

Despite the cold weather during the March counts within the MPC off-street facilities, the counts conducted on July 10th were only 6.5% higher. It was noted that the numbers from the Roam garage may be somewhat skewed as the counts were taken during Summer break. If we use the counts from March for the Roam Garage instead of those taken in July, the overall occupancy rate jumps to 71.1% or an 11.1% increase.

MPC Off-Street Parking Counts 7/10/2019					
Structure/Lot	Supply	# of Open Spaces	# of Occupied Spaces	% Available	% Occupied
Bank Street	137	20	117	14.6	85.4
Central Park	277	63	214	22.7	77.3
New Park	109	0	109	0	100
Park Place	301	150	151	49.8	50.2
Roam	148	48	100	32.4	67.6
Totals	972	281	691	28.9	71.1%

Another factor for consideration is the Park Place garage. This garage, in both counts reflects 150 available spaces or a utilization rate of 50.5%. However, a majority of the “unoccupied” spaces in this garage are leased to the Marriott hotel and not available to the public. If it was assumed that 90% of these 150 spaces are “off the table” because they are leased, then the overall utilization picture changes dramatically with overall utilization at approximately 85% as reflected in the table below.

MPC Off-Street Parking Counts 7/10/2019					
Structure/Lot	Supply	# of Open Spaces	# of Occupied Spaces	% Available	% Occupied
Bank Street	137	20	117	14.6	85.4
Central Park	277	63	214	22.7	77.3
New Park	109	0	109	0	100
Park Place	301	15	286	0.49	99.51
Roam	148	48	100	32.4	67.6
Totals	972	146	826	15	85%

Figure 20. Utilization of Existing MPC Facilities

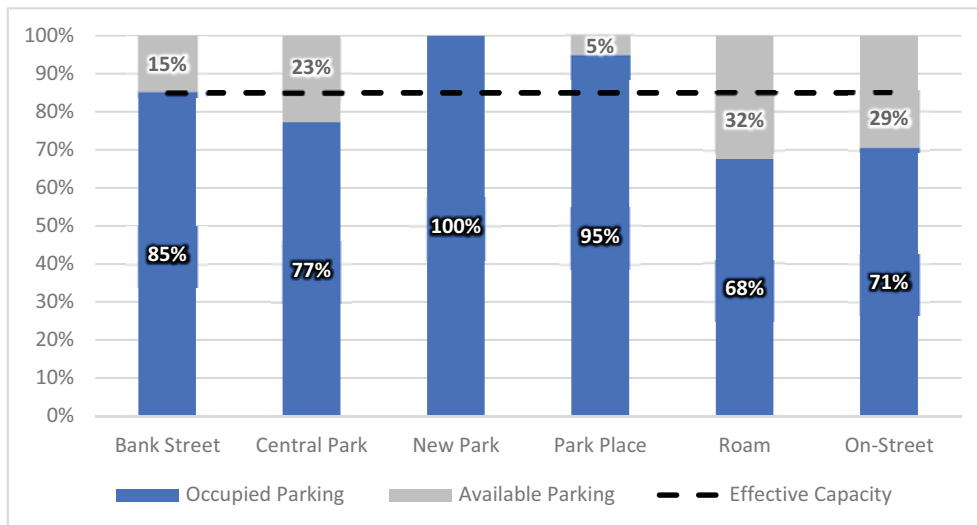
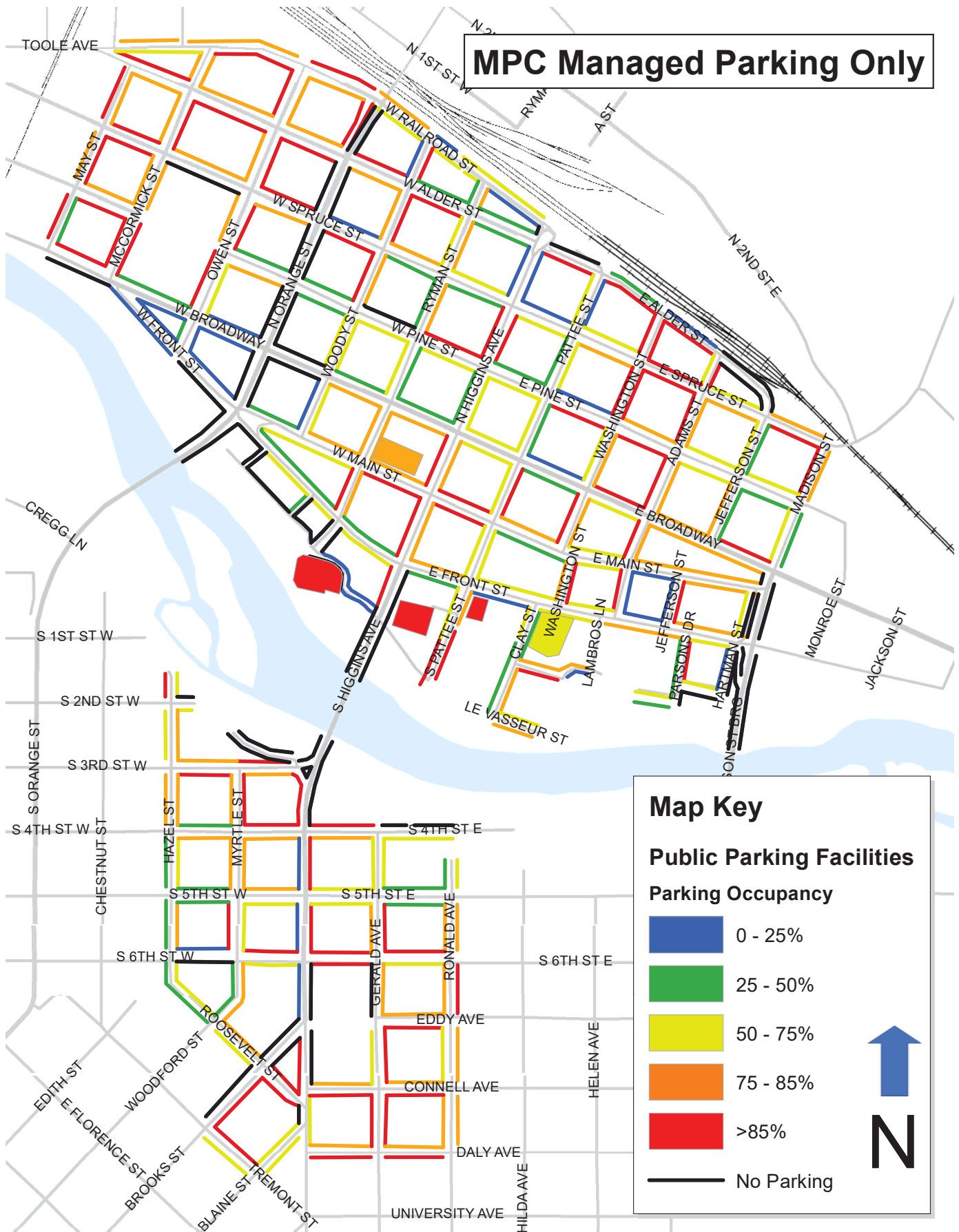


Figure 21. MPC Existing Parking Utilization as of July 2019



Parking Commission Strategic Plan Update

Parking Commission Strategic Plan Update

Introduction

The RFP for this project stated the following related to downtown parking in Missoula:

“Parking: As the downtown transitions to a more vibrant residential, employment and entertainment district, parking has become an increasingly important issue. There are four parking structures in downtown; however, most of public parking is currently provided either on the street or in surface lots. Regardless of zoning requirements, the market, especially for new housing and office space, increases the need for additional off-street parking, ideally in the form of structured parking. The MPC has done an excellent job of creating and managing parking when most of the demand could be met without building structures. That model no longer works with greater demand and higher land values. MPC now has the need for a comprehensive parking plan to help guide planning, resource allocation, and increase revenues.”

Over the years, but especially in the past two decades, the Missoula Parking Commission has evolved into a respected and accredited parking management organization. Having implemented all the major recommendations from the 2009 Downtown Master Plan via the “Parking Strategic Plan”, the MPC made significant investments in upgrading the parking system’s technology base as well as becoming one of the first programs in the nation to achieve program accreditation through the International Parking and Mobility Institute.

The MPC’s participation in the 2019 Downtown Master Plan Update provides an opportunity to enhance policies and management practices to leverage the new capabilities and data available from the new parking management system investments (including the T2 Systems “Flex” software platform, new off-street parking equipment, pay-by-license plate multi-space on-street meters and mobile license plate recognition software).

Defining a series of parking and mobility management priorities to support the larger strategies and objectives of the updated downtown master plan in 2019 and establishing processes for the MPC to grow and expand in the future is addressed in this draft Parking Strategic Plan update.

Updating Parking Management Strategies

This parking strategic plan update is intended to define parking strategies and guidelines for internal Parking Commission staff, board members and stakeholders. The following updated parking management strategies are organized into the following major recommendation categories, each covering a distinct management topic:

1. Shared Parking with Private Assets
2. Enhance Parking Facilities Maintenance Practices
3. Develop New “Employee Parking” Strategies
4. Review MPC Organizational Structure
5. Truck Loading Zones
6. Modernize Parking Codes/Ordinances/Policies
7. Parking Commission Expansion and Growth
8. Performance (Demand) Based Pricing
9. Future Parking Garage and Mobility Initiative Financing Strategies
10. Forming New Parking Management Districts
11. Parking Time Limits and Enforcement Hours
12. Data-Driven Policies to Support Balanced Utilization
13. Improve Parking and Mobility Wayfinding, Branding, and Messaging
14. Improve Pedestrian and Bicycle Services and Facilities
15. Implement a Comprehensive and Dynamic Curb Lane Management Program
16. Enhance Residential Parking Practices
17. New Parking Asset Development/Design Guidelines
18. Implement MaaS/Personal Transportation Options
19. Implementing Paid On-Street Parking in New Areas

Each strategy area is categorized to reflect whether the strategy is suggested for consideration as a short-term, medium-term or long-term strategy, as shown below:

- ○ ○ — Short-Term Strategy
- ● ○ — Medium-Term Strategy
- ● ● — Long-Term Strategy

The plan update also identifies a series of management implementation timeframes for the overall parking and mobility system as well as introducing new recommended policy statements as outlined below:

- Policy: PARKING and MOBILITY MANAGEMENT

Reduce parking demand and manage supply to improve pedestrian, bicycle, and transit mode share, neighborhood livability, safety, business district vitality, vehicle miles traveled (VMT) reduction, and air quality. Implement strategies that reduce demand for new parking and private vehicle ownership, and that help maintain optimal parking occupancy and availability.

- Policy: CURB ZONE MANAGEMENT

Recognize that the Curb Zone is a public space, a physical and spatial asset that has value and cost. Evaluate whether, when, and where parking is the highest and best use of this public space in support of broader City policy goals with the local land use context. Establish thresholds to utilize parking management and pricing tools in areas with high parking demand to ensure adequate on-street parking supply during peak periods.

- Policy: LOADING ZONES & DELIVERIES

Manage parking and loading demand, supply, and operations in the public right of way to encourage safety, economic vitality, and livability. Use transportation demand management and pricing of parking in areas with high parking demand to help achieve mode share objectives.

- Policy: PARKING “OVERSELL”

Typically, a minimum “oversell factor” of 15% is recommended as a starting point. It is not uncommon for some lots to be oversold at a rate approaching 25% – 35% or higher, depending on the user characteristics and usage patterns.

The suggested approach is to begin incrementally increasing the oversell factor on each area and monitor availability closely to ensure a utilization rate in the 90 – 95% range.

On-Street Management Objectives

While this Parking Management Plan update is applicable citywide, the operational guidelines focus on parking within and around Missoula’s downtown and commercial districts. The key goals of on-street parking management include:

- The on-street parking system in commercial districts should be managed to support the economic vitality of the district by encouraging parking turnover, improving circulation, encouraging use of off-street parking, maintaining air quality, and promoting the use of alternative modes by managing the supply and price of on- street commuter parking.
- In managing the on-street parking system priority is given to short-term parking for customer of downtown businesses, followed by transit, carpools, and the remaining supply is managed for long-term use (such as employee parking).



Contribute to economic vitality



Advance established transportation and parking district goals



Foster transportation options



Minimize parking impacts on adjacent areas



Support meter system maintenance and operational costs

Parking Commission Strategic Plan Update: Potential Strategies

Strategy 1:

Shared Parking with Private Assets

Strategy Implementation Timeframe: ● ○ ○

Short-Term Strategy

Overview

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 underutilized parking spaces at a minimum but may also contribute to management and operations. Insurance and maintenance are additional areas that need to be addressed. The benefit of the shared parking system is that shared public parking will expand parking options and improve access by opening parking to the public that may have previously been restricted to specific users.

Key Recommendations:

While shared parking should always be a consideration for the City, the current shortage of leased (monthly) parking makes this more of a priority in downtown Missoula today. The cost to lease private spaces or share the cost to manage private spaces will be considerably lower than the cost to build new public spaces.

Explore the MPC's desired role in facilitating shared parking with private facilities. This will likely include opportunities to support the private sector with:

- Management and operations
- Enforcement
- Wayfinding, branding, and marketing
- Facility liability insurance
- Security

Partner with City business and property owners, community and economic development organizations, and other stakeholder groups to develop and manage a shared parking system for public and private facilities.

Case Study

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, such as the Sacramento Downtown Partnership, on marketing and communications. 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 (see top-right photo). The increased enforcement has reduced parking violations and increased parking availability.

The City of Sacramento has an integrated on- and off-street parking management program with common branding and communication materials. The photo on the middle-right shows branding signage for the Mid-Town District and for on-street parking.

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 LPR, for enforcement (See bottom left) but are not able to contract with the City to provide enforcement.

The shared parking system uses consistent technology for a consistent user experience. The photo in the bottom-right shows a pay station at a private facility that is the same pay station used by the City at specific locations.

Strategy 2:

Enhance Parking Facility Maintenance Practices

Strategy Implementation Timeframe: ● ○ ○

Short-Term Strategy

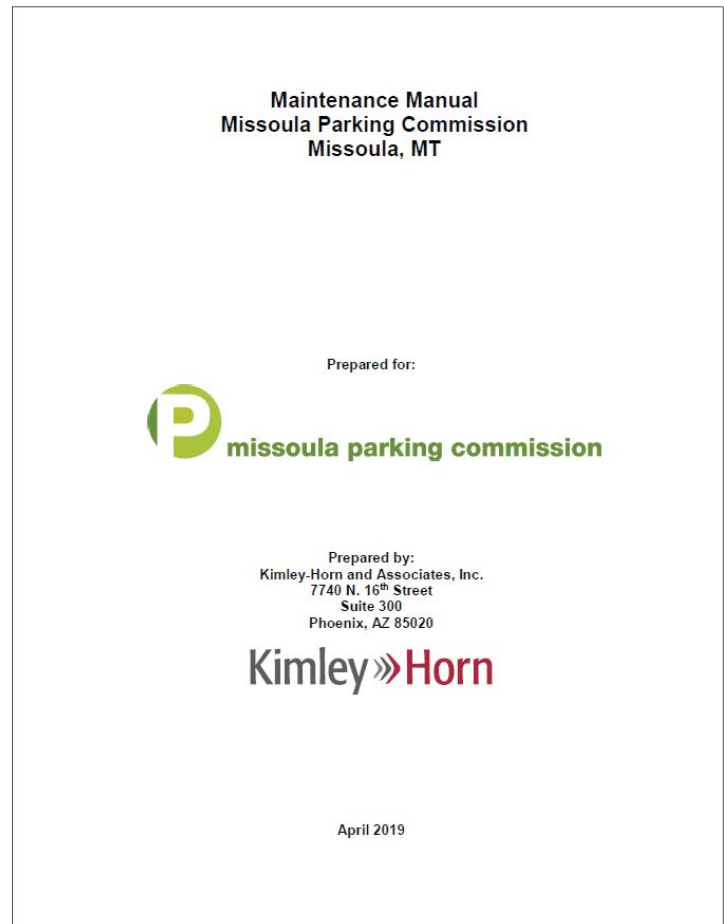
Overview

One specific area that the MPC requested that this report address is a defined, comprehensive process for addressing parking facility (garages) maintenance.

Appendix B provides the MPC with a comprehensive parking garage maintenance manual that has been updated with current industry standards.

The manual is organized as follows:

1. MAINTENANCE NARRATIVE
 - Overview
 - Routine / Preventive Maintenance
 - Repair / Replacement Maintenance
2. MAINTENANCE MATRICES
 - Routine / Preventive Maintenance Schedule
 - Repair / Replacement Maintenance Schedule
 - Annual Garage Assessment Checklist
3. BLANK FORMS
 - Daily Maintenance Report
 - Weekly Maintenance Report
 - Monthly Maintenance Report
 - Semiannual Maintenance Report
4. LOGS
 - Key Maintenance Logs
5. WARRANTY INFORMATION
 - Product Information and Warranties
6. RESOURCES
 - References and Resources



Strategy 3:

Develop New Employee Parking Strategies

Strategy Implementation Timeframe: ● ○ ○

Short-Term Strategy

Introduction

Developing a Comprehensive Approach to Employee Parking and Commute Option Programs

“Every day 130 million people commute to worksites across the nation, from large downtown office buildings to suburban office parks, and every location in between. Employees face increasing challenges getting to work in the most efficient, affordable and sustainable way – a challenge that can negatively impact productivity if not addressed. Progressive employers understand the steps available to improve the commute options for their workforce can have wide ranging benefits including:

- Attracting and retaining employees
- Improving work life balance
- Achieving corporate sustainability and climate goals
- Reducing transportation costs and tax savings”¹

The quote above comes from a paper published by the Association for Commuter Transportation entitled “Getting to Work – Spotlight on employer-sponsored commuter programs.” This paper is just one resource provided as an appendix to this report section that focuses on the development of a comprehensive approach to employee parking as well as providing a range of alternatives including creative commuter options.

This report section (Employee Parking & Commute Option Programs) begins by discussing “Why Parking Matters” and the many impacts parking can have on communities, employers and employees, including such elements as “the myth of free parking”, economic considerations, costs associated with land use, transportation costs, sustainability issues and direct and indirect costs. It then documents research on effective employer parking programs, policies and best practices and then broadens its scope to explore a wide range of commute option programs that have been proven effective in mitigating employee parking demand and providing a range of transportation alternatives and employee transportation benefits.

Why Parking Matters

The design and availability of parking has the potential to shape both the look and feel of a city, the quality of life of its citizens and visitors, and the potential for new growth and development. The need to accommodate parking must be balanced with other competing goals for the built environment such as livability and economic development. It is important to acknowledge that it is impossible to accommodate the land consumption that would be required to park every vehicle since it would prevent the City from achieving its goals of being a sustainable, livable community.²

Parking

- Impacts the look and feel of a city and its neighborhoods
- Is shaped across multiple levels of policy, regulation and administration
- Is an important component of the overall land use and transportation system
- Can affect traffic congestion
- Has cost and value associated with every space
- Is dynamic and varies based on the surrounding land use and time of day
- Is part of a larger city system with many stakeholders
- May require tradeoffs in our behavior, expectations, and choices
- Demand is most intense where there are centers of activity, mixes of land uses, and where land is valuable
- Takes up land as one off -street space = 300+ square feet of physical space.
- Structures cost upwards of \$18,000 - \$30,000 per space.
- Affects housing affordability
- Can contribute to urban sprawl and pollution

¹ “Getting to Work – Spotlight on employer-sponsored commuter programs” Taking ACTION – January 2017, Association for Commuter Transportation

² Excerpt from the Denver Parking Strategic Plan, October 2010

Everyone Pays for Parking

Whether it is through a direct or indirect charge or an impact, parking is never free. Even in situations where parking appears to be free, like at grocery stores or shopping centers, the real costs of parking are often hidden. Businesses that provide free parking might fund the cost of providing parking through their annual operating budgets. Other businesses might even pass on those costs through the price of their goods or services. Likewise, the parking spot on the street in front of a home has a cost that is paid for by tax receipts.

The cost of parking, however, is more than just physical. The opportunity costs associated show that parking is worth much more than the amount of quarters it takes to plug a meter. Its value is evident in terms of economic development, land use, the health and connectivity of the overall transportation system, and environmental sustainability.

Economic Development Costs

Effective parking policies and management strategies directly impact local economic development. Parking supply is often a key consideration for businesses considering any City as a location since they must consider access for both employees and customers. Customers think about parking as they make decisions regarding where to shop, do business, and play. Customers may choose to go elsewhere if the parking associated with a business or commercial area is limited, perceived as too far away, is too expensive, or is inconvenient.

The Urban Land Institute document, “Ten Principles for Rebuilding Neighborhood Retail (2004)”, encourages balancing a walkable environment with convenient access in urban shopping locations. It advocates for “high visibility, a sense of personal security, and adequate convenient parking” as necessities for successful retail but warns that “without them retail will likely fail, regardless of the sophistication of the shopping environment or the quality of the tenants”. The parking decisions made by the affected stakeholders and their economic impacts are important since it relies on tax revenues from retail sales to fund city services for both residents and businesses. In some cases, there is a relationship between the provision of parking and economic vitality. The goal is to achieve what is often a delicate balance between local area interests and overall city and community interests to create lively, attractive, and sustainable places.

Costs Associated with Land Use and Neighborhoods

In a typical North American city, the amount of space dedicated to roadways accounts for about 30% of the total land use. Land used specifically for parking simply adds to the overall percentage of space that is dedicated primarily to automobiles.

In addition, the visual impact of too much surface parking in an area can be striking. If the supply of surface parking is underutilized, it may also be perceived as unsafe or may not attract new development. The decision to use large areas for surface parking in urban areas where land values are high may not be the most cost-effective or efficient use of land for both individual community and city interests.

Finally, parking requirements for new development may significantly impact construction costs and impact the financial feasibility of a project. Many communities are poised to invite new development of many shapes and sizes. This growth will contribute much to the vitality of different neighborhoods as well as the communities. Future land choices should support the City’s goals of providing affordable housing choices, increased services, jobs, and neighborhood retail.

Transportation Costs

Parking is an important component of the overall transportation and mobility network since the design and location of parking can influence personal travel choices. If there is a reasonable chance of free and available parking at one’s destination, it is more likely that an individual will choose a private automobile for the trip. Free and abundant parking provides no incentive to utilize alternative forms of transportation; prioritizing the use of personal vehicles over walking, cycling, or transit use. In addition, the location of parking can directly impact safety, circulation, and access for users of other transportation modes. The use of on-street parking should be weighed against other potential uses of available right-of-way such as bike lanes or dedicated transit lanes. While congestion and air pollution levels increase with additional vehicles on the road, decreasing the number of vehicles on the road could reduce parking demand, traffic congestion, and pollution levels.

Environmental Sustainability Costs

The quality of a community's environment is impacted when land is dedicated to parking uses. Large surface parking lots can contribute to the "heat island effect" when asphalt absorbs and retains heat from the sunlight. Additionally, ground covered with asphalt or concrete is impermeable, which inhibits natural drainage and can carry run-off water containing oil, gas, grease or other fluids into storm drains, rivers, or streams. This ultimately impacts the City's overall water quality. Land dedicated to cars for roadways or parking should instead be balanced with opportunities for green spaces where plants and trees help improve air and water quality.

Direct Costs

Parking requires substantial capital and operating expenditures that are not always recovered from those who use the spaces. Cities, corporate campuses and other large institutions routinely manage hundreds of on and off -street parking spaces, however, only a very small fraction of those spaces typically produce revenue. Each space has an associated cost in terms of land value, maintenance, utility and management expenses.

Land utilized for on-street parking is a scarce and highly valuable resource. Effectively managing on-street parking primarily as a short-term, high turn-over resource is highly recommended. It is costly to build additional parking even if it is developed as surface lot parking. It is especially expensive when it requires the construction of underground or raised structures. In addition, each space must be maintained to make sure it is safe, accessible, and complies with zoning requirements or other city standards. Successful parking systems also require constant monitoring and administrative management to make sure that they are meeting the needs of users and citywide goals. Parking studies, data collection, and other evaluation strategies are costly and time consuming but are often necessary to calibrate the usefulness of the overall system.

Active parking management has a significant cost impact for municipalities. Many cities devote full-time staff teams to the management of parking operations and enforcement. Enforcement teams that monitor parking management compliance require personnel and equipment resources. Parking technologies that improve customer service and performance for

users, such as online citation payment websites or the installation of new, more convenient meter technologies also represent significant capital investments for the City. Finally, the maintenance of on- and off-street parking facilities includes costs such as resurfacing concrete and asphalt, striping, and signage to ensure that parking spaces are functional and clearly marked. Although meters and enforcement activities can generate citation or fine revenue for the City, expenditures to keep parking inventory and programs running effectively often cut deeply into any profits.

The bottom line is that parking is an essential element of modern society and its impacts and cost are not insignificant. However, an effectively managed parking system can also contribute greatly to health, vitality and image of any community or campus; and within the realm of parking management, one of the biggest elements of an effectively managed system is the development of effective strategies and policies to address employee parking. In this context, employee parking can mean either managing your own employees, or in a broader context, having a range of options to address the needs of employees where parking is managed.

Employee Parking Program Research

Because accommodating parking for employees/commuters accounts for such a large percentage of parking needs for any community, and because employers can offer their employees alternatives to driving single occupant vehicles, interest in exploring the range of strategies employed by parking management organizations in a variety of parking environments is high. Combine this with the often-significant cost of providing parking, recent surges in advanced transportation demand management solutions (largely driven by technology and mobile communications) as well as the emergence of a new topic area being referred to as "Shared Mobility", and it is easy to understand why this topic area is currently receiving a lot of attention.

As part of the research for this project, Kimley- Horn reached out to several of the top parking management professionals across the country to get their input relative to the issues associated with developing and implementing effective employee parking programs. Below is summary of the feedback we received.

Insights from Active Parking Management Professionals - City of Beverly Hills, CA

Valet Stack / Tandem Parking Options:

- Although no one likes to leave their keys, in our experience, ‘monthly’ users (employees) that use valet stack / tandem parking daily have more issues; claims, complaints, etc. than occasional customers. To address, we have done a few different things...
- Sold reduced monthly permits to companies that will manage their own tandem parking; we just ‘enforce’ to ensure that their employees are using the designated areas.
- Assigned monthly users to tandem spaces (blocked by valet / transient parking) so they can keep their keys. Valet / transient vehicles park with attendant-assist
- Once valets get used to the users’ schedules, we often don’t have to move a valet / transient vehicle at all

Part-time Employees:

- We have identified two user profiles that are most likely violate parking policy by either parking/re-parking in free areas or in residential areas
 - Those that work all day 1-3 days per week
 - Those that work less than a full day (1/2 day) 4-6 days per week
- We have considered, but have not had great success with, the concept of offering multi-monthly discounts
 - Restaurants are a good example of where this can work, but there is typically no one that is assigned the task or willing to organize their parking. The business usually takes an arms-length approach to their employee parking problem, leaving the parking authority to deal with the issues.
 - The concept of “multi-monthly discounts” is that the business may have 10 or 20 employees, but there may only be 5 employees present at any one time

- Under this concept, the City would allow businesses to purchase 5 full price monthly parking permits and then as many additional permits at a reduced rate (1/2, 2/3, whatever) but only allow 5 vehicles in the facility at one time. Most modern parking access and revenue control systems (PARCS) can provide the capabilities to manage this approach.
- The key issue is having a program that can be communicated to the business and getting the business to be an active partner

Evening Employee Parking:

- For evening employee parking, we identified an ‘exit window’ that most of the evening employees (mostly restaurants) were leaving the facility. We created a reduced flat rate based on time of exit of \$2 or \$3. This means that if you arrived to work at 5pm and exited the facility between, say 10p-12a, your fee would be a flat rate of \$2. If you exited at 9pm, it would have been \$6 or even \$18 if you were paying the day/hourly rate and not the standard evening flat rate.
- This program was created when we installed pay-on-foot equipment in our facilities and were collecting fees 24 hours a day. The local restaurants were complaining that their business was down because people used to grab dinner after work (like 7/8pm) and wait until the attendant left for the evening at 9pm to exit free. We made a compromise to help address the issues of restaurant patrons with the reduced flat rate window, which also became a benefit for evening employees.

Below-Market-Rate Parking for Employees:

- We piloted a Below-Market-Rate program with the Chamber of Commerce as the administrator of the program.
 - We sold the Chamber a book of reduced rate monthly/daily passes at a 50% discount
 - The program stipulated an hourly wage cap to ensure it was going to those least likely to purchase (or afford) monthly parking and abusers of the park/repark or residential areas.
 - The Chamber added a small ‘fee’ for the sale of the permit to cover their costs.

- If you can find a way to get the local business to be an active partner, I think that is one of the best ways to both find solutions and offer more organized programs. For instance, you offer the business the ability to purchase the parking at the extreme discount, there is connectivity to the business and accountability for usage/fraud.
 - With respect to wait lists, one of the things to consider/manage is who is on the list.
 - Consider how many spaces you will allow a single user/business to place on the list and let people know up front how long from the time you notify them of available parking you will wait until you go to the next person on the list.

Insights from Active Parking Management Professionals - City of Lincoln, NE

High Parking Demand – Parking Supply Issues:

- The City of Lincoln has reached the point of demand that has us looking at constructing a new garage. In the meantime, however, the two programs we are looking at most closely are:
 - On-street (digital) permit parking in remote metered spaces.
 - Subsidizing bus ridership for current monthly parkers in an effort to “buy back” some of the monthly spaces currently in use.
- We are also looking at the shuttle option to better access the existing parking in some of our outlying areas but the cost is not in line with the current budget. Perhaps if the need becomes more critical this option will become more attractive.

Insights from Active Parking Management Professionals - City of Houston, TX

Managing the high costs of providing employee parking:

- We are at the point where we need to make some recommendations to the Mayor about the Employee Parking & Transit Program. We spend about \$4 million/year on parking/transit for City employees. The City pays for either a parking space or a transit pass.
- Recently, all our parking rates just went up and we are looking at ways to better manage this program. We’ve done a quick survey of other employers in the area and it’s an even split

between those who pay for parking and those employers who partially pay for the parking.

- We are interested in “parking cash out” for the employees but it’s a hard sell because taxes are impacted. But we are considering partial subsidies of parking and full subsidies for transit. Note: Parking cash out is a program that allows employees to opt out of having a parking space and instead receive compensation. The employer who leases (or owns) a space pays the employee not to park.
- We have a vanpool and carpool program and those vehicles have preferred parking, but the scale of this initiative is small, and in the past, interest has been limited. For employees who opt for transit, we offer 12 days of free parking in the garage if they need to drive (per year) and we also offer emergency transportation for transit employees (we call a taxi – only have had to do that once since we’ve taken over the program).
- We also require all employees enrolled in the transit & parking program to resolve any outstanding parking citations to their personal vehicles in addition to billing departments when employees fail to resolve parking citations on city vehicles.
- Finally, we incorporated peace officer parking into the rollout – as you know, peace officers park anywhere and everywhere – we have a general order that prohibits them from parking within 4 blocks of headquarters if they work at headquarters, but this is routinely violated. Additionally, they would leave a badge or a ball cap or homemade placard on the vehicle which we were not in favor of.
 - Now we issue placards to the police department employees – if they work in headquarters, they get a blue placard – so they may park at a meter but it can’t be within 4 blocks of headquarters. If the peace officer works at the one of the satellite offices, they get a yellow placard which allows them to park in the vicinity of headquarters.
 - I feel like we just encourage single occupant vehicle (SOV) usage and contribute to the traffic madness instead of leading the way out of it. See Houston’s Employee Parking Administrative Policy on the program and the memo they sent to the Mayor’s office with their recommendations (see Appendix).

Strategies for Maximizing Existing Parking Resources

1. Parking Program Marketing and Signage

The development and implementation of a strong parking and access management brand, including the design of new parking facility signage and decals for on-street parking equipment can improve facility utilization. The development of new parking signage will be an important and highly visible element of the new branding program.

2. Parking Resource Allocation Policies

The shifting of current employee parking allocations to remote or peripheral garages should generate increased revenue because hourly rates are typically higher than monthly rates and there is the potential for increased turnover and therefore increased revenue per space.

3. Event Coordination

Under normal circumstances (non-peak demand periods) there are excess parking spaces in City garages. Utilizing these spaces for event parking needs during non-peak demand times should be considered as a source of additional parking revenues.

4. Strategies to Better Utilize Public and Private Parking Resources

In many communities, the utilization of private spaces can be 50% or less, creating an opportunity to shift at least a portion of those spaces to public use. Finding opportunities to increase the number of private spaces that can be used for public parking can be an effective strategy to increase parking options for a wide range of parkers, especially in an environment where funding for new public garages is diminishing. Typically, the City parking management program can manage these “excess” spaces for the private entity for a management fee or a revenue sharing arrangement. The following strategies are recommended for consideration.

- Allow and encourage shared private parking between uses with parking demands peaking at different times of the day, week, or year.
- Shift to building more public and less private parking by allowing or requiring developers to pay into a fund to be used for building public parking rather than providing parking spaces on-site (In-lieu-fees).

- Allow property owners with excess on-site parking to lease extra spaces or charge the public to use them during the site’s off-peak hours, or allow them to redevelop the excess space as building space if they pay into a fund to be used for building public parking
- Sometimes private parking owners are reluctant to open their parking facilities to public use after hours, because of concerns related to vandalism. In these cases, providing some level of insurance or operating the spaces on a valet basis can overcome these concerns.
- Charge for on-street parking where demand exceeds supply. If there are already meters for on-street parking, raise hourly rates, or allow meter rates to vary with demand. To make this more palatable, make payment easy using advanced meter technology.
- Discourage shop owners and employees from parking in front of their stores or the stores of their neighbors. In high demand areas, this can often be accomplished by increasing enforcement routes.
- Consider allowing public parking in the public facilities that are typically dedicated to City uses during the day (for example spaces reserved for City Hall employees or courthouse jury parking) after hours and on weekends.

A new area of potential for maximizing the utilization of existing private parking assets involves on-line search engines that steer drivers towards the cheapest and most convenient parking facilities. Millions of customers access these websites across the country and many of the largest parking operators in the country partner with the “on-line parking brokers” to rent parking spaces on both a daily and monthly basis. Motorists can search for parking by neighborhood, address, cross-street or attraction. All parking garages and lots near the search destination appear on a map and sortable list. Details for each facility are posted, including addresses, phone numbers, capacity (if available), indoor/outdoor, clearance height, electric vehicle charging, etc.

There are now several of these types of services available for review and assessment including:

- Best Parking
- Park Whiz
- Parking Panda
- Spot Hero
- Click N Park (SP+)
- Parker (by Streetline)

Also – both ParkME (acquired by Inrix) and Parkopedia have partnered with some of the apps in different geographies to allow for booking within their sites.

Why Should Employers and Municipalities Care About Parking?

The following section was modified and updated from an excellent document originally published by Metro in Seattle, entitled Managing Employee Parking in a Changing Market. Metro developed this handbook for use by employers who provide parking for their employees. Production of this handbook was made possible by a grant from the Federal Transit Administration. Eileen Kadesh of Metro’s Market Development section and Diana Ehrlich, a graduate student at the University of Washington, coordinated development of this guide.

At first glance, parking management – management of the location, cost, availability and demand for parking – may not seem like a very important topic. Yet, there are three good reasons why employers and municipalities should take a fresh look at their parking policies:

Reason No. 1: Effective parking management can save you money

- Employers and communities who own their own sites will find effective parking management can help them recoup the cost of their initial investment in parking.
- Employers and communities who lease their sites and do not pay a separate charge for parking in their leases may gain more control over the number of parking spaces assigned to them by developers or building management. This change can lead to more competitive rents.

- Effective parking management can help employers and communities avoid the need to build new parking spaces or lease additional parking.
- Where employers reduce parking supply or charge market rates for parking, they also may reduce drastically the cost of setting up a trip reduction program.

Reason No. 2: Effective parking management is one of the best ways to influence employees to stop driving to work alone

- Research has shown there is a strong relationship between the availability and cost of parking and the choice of a commute mode. More than 75 percent of the people who drive to work in U.S. cities use parking provided by their employers. And 90 percent of those workers don’t pay to park. For many employers, free parking at work is a stronger incentive to drive than if their employer offered instead to give them free use of an automobile and free gasoline for their trips.

Reason No. 3: Parking is Expensive

- Employers spend a tremendous amount of money on parking. Costs associated with parking include taxes, construction and maintenance, in addition to the opportunity costs of converting spaces to uses with higher financial return.
- A 1985 survey in southern California found the cost to firms for employee parking ranged from \$26,000 to \$377,000 a year, with a median of about \$40,000 a year.
- About 75 percent of suburban economic center parking is surface parking. A well- designed facility uses 300 to 325 square feet per car, including space for aisles, landscaping and other features. Surface parking costs approximately \$12 to \$18 per square foot to build, including paving and drainage, lighting, landscaping and basic access and revenue control equipment. A parking stall of 320 square feet, therefore, would cost between \$4,500 and \$7,000 per space in 2019 dollars.
- Parking structures cost \$18,000 to \$32,000 per space, depending on their height and design, plus the cost of land in 2017 dollars. Below-grade parking can cost 1.5 – 2.0 times the cost of above grade parking structures per space to

develop. A parking fee of approximately \$200 per month would be required only recover this capital cost. An additional charge would be necessary to cover operating costs.

Why do employers provide free parking?

- Employer-provided parking subsidies have been an integral part of the benefit package used to attract and keep employees. These subsidies can be direct (employers buy or reimburse employee parking) or indirect (employers pay higher lease rates). Indirect subsidies are most common in suburban areas.
- Parking subsidies are nontaxable to \$155 per month, so employers can provide a fringe benefit with a value that exceeds the same amount of taxable income.
- Suburban employers do not normally have parking costs itemized separately in their building leases. The total rent includes the cost of parking for those employers. Thus, suburban employers usually do not know how much it costs them to provide parking for their employees. They also have no monetary incentive to encourage their employees to use less parking. Those conditions have led to abundant free parking in the suburbs.
- A survey conducted by the Orange County Transit Authority in California asked 50 employers who did not charge their employees for parking their reasons for that policy (employers could respond more than once). Ninety-two percent said they provided free parking because it's considered an employee benefit. Many employers (42 percent) said they never considered the issue. Twenty percent said charging for parking would be too time consuming. Only one employer suggested a union or employee contract as the reason. These findings confirm the prevalent view of parking by employers – free parking is standard practice and largely a non-issue.

It's Time for a New Perspective

We want to make the case for reconsidering your business' or community's employee parking policies. Below are some compelling reasons such a strategy will become critical in the next few years as companies (and cities) struggle to remain competitive.

Market Conditions are Changing

Several factors will affect employer parking policies during the next decade:

The Commute Trip Reduction Law

- Many communities are affected by state Commute Trip Reduction (CTR) laws. Undoubtedly, some employers will consider parking strategies only as a last resort. But others are looking ahead and realizing that commute alternative programs often have poor results when parking is plentiful and provided free to employees.
- If employers reduce parking supply or charge market rates for parking, the cost for setting up a CTR program can drop drastically.

Tightening of Parking Supply

- Of the 52 employer demand management programs featured as models in the CTR guidelines, 50 percent began because of parking shortages at the work site. Many companies facing a shortage of parking, decided to meet the goals of the CTR Law by not building or leasing any new parking.
- Hospitals are one type of business facing a changing market for parking. As the number of outpatient surgeries increase in comparison with lengthy hospital stays, the need for more outpatient parking is becoming apparent. Hospitals offered significant incentives to their employees mainly to ease the parking situation and provide more spaces for patients.

Increasing Flexibility in Leases

- Some building management companies will let tenants out of their leases under certain conditions. The tenants can turn in parking spaces they no longer need and reduce their costs proportionately. Until now, tenants in those buildings did not know their parking cost because the lease did not itemize it separately. Market conditions in many downtowns make it more advantageous for lessors to rent parking spaces daily, instead of monthly. So, if an employer in this situation can persuade some portion of its employees to give up their cars and shift to alternate modes, the company can save money.

- Boulder Colorado employees the acronym S.U.M.P. to describe their overall approach to parking. S.U.M.P. stands for: Shared, Unbundled, Managed and Priced..

Economic Conditions

- Because of the state of the economy, many companies are finding they need to cut costs to survive. Companies can save money by changing their parking policies in several ways:
 - Charge employees for parking or simply stop providing parking, requiring employees to find their own parking or choose other ways to commute.
 - Decide not to build or lease additional employee parking and focus instead on reducing the demand for the limited parking supply.
 - Convert excess parking supply to uses that are more profitable or beneficial to employees. Some ideas are to lease the parking to other companies, construct additional buildings on the space or convert the parking area to open space with a recreation or picnic area for employees.

Desire for More Choice

- Employees are beginning to ask for an array of transportation choices as part of a benefit package. In response to this request and the need to reduce solo driving, some employers have begun to broaden their definition of accessibility from simply providing parking to offering a range of commuter services. Free parking by itself may not be enough to satisfy employee expectations.
- What would commuters do if employers did not subsidize parking? Researchers in Seattle who have analyzed case studies in the United States and Canada suggest that at least 20 percent of commuters who now drive alone would choose to carpool or use public transit if employers required them to pay market rates for parking they now receive free.
- Local studies provide comparable numbers. In a survey by Metro in downtown Seattle, more than 30 percent of the employees interviewed said they would drive alone less or ride the bus if they had to pay the full price of parking. Of about 24 percent of employees interviewed in downtown

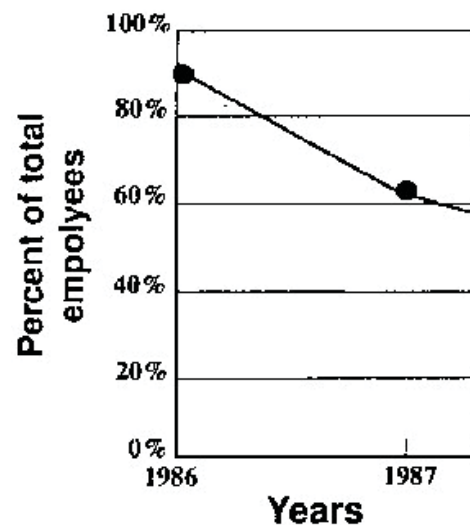
said they would try ridesharing or use transit if parking costs increased significantly.

- Some employers might dismiss survey results by concluding that what people say they will do is far different from what they really do. Following that concern, below are the experiences of two employers who stopped subsidizing employee parking.

Case Study # 1: CH2M Hill

- Challenge when it moved from a suburban area to downtown Bellevue, WA. Of the 89 percent of employees who drove to work alone, 80 percent said no alternatives would make them switch. Despite that response, a parking charge of \$40 per month (scheduled to increase each year until it reaches market rate), a new comprehensive parking management program and commute subsidy program produced dramatic results. In one year, CH2M Hill's single-occupant vehicle (SOV) rate dropped from 89 percent to about 62 percent - a 27 percent reduction in SOV commuting. Today, the company still maintains a 50-60 percent SOV rate, in an area where the average SOV rate is 82 percent.

Percentage of employees who drive alone to work CH2M HILL



Source: CH2MHill

Case Study # 1: Bellevue City Hall

- Bellevue City Hall traditionally had more employees than parking stalls. It responded to the parking shortage by charging a parking fee of \$30 per month. The SOV rate for the site dropped from 75 percent to 55 percent the following year - a 20 percent reduction. Key to that success was the fact that the parking charge was only one part of the city's rideshare parking management program. Besides the parking charge, the program featured a transportation allowance to all alternative-mode users, a bus-pass subsidy, a fleet-ride program and a guaranteed ride home program. Of note is Bellevue City Hall's location outside the downtown area because transit service is not readily available.

Exploring the Emerging Field of Shared Mobility

The emerging area being referred to as "shared mobility" provides great promise for offering a range of alternatives that can help mitigate the need for employee parking by providing a menu of alternatives to single occupant vehicle usage. An "eco-system map" was recently created for the Silicon Valley "Mobility as a Service" project, where mobility aggregators are beginning to integrate various programs and services.

The menu of shared mobility options provided below identifies several major categories related mobility as a service. Examples for each category are provided below. For more information on specific programs a Google search by the program name will generally provide a good overview of program scope and options.

- Enterprise Commute Trip Reduction (Examples: Luum, Ride Amigos, etc.)
- Mobility Aggregators (Examples: Moovit, Moovel, Urban Engines, etc.)
- Public Transit
- Private Sector Transit (Examples: Bridj, Chariot, Go Carma, Via, etc.)
- Rideshare w/in 10 min (Examples: Lyft Carpool, UberPool, Ford Dynamic Social Shuttle, etc.)
- Rideshare w/in 24 hours (Examples: Carma, HOVee Carzac, etc.)
- Taxi-like services (Examples: Lyft, Uber, Juno, Sidecar, etc.)
- Carshare (Examples: Car2Go, Zipcar, Enterprise Car Share, etc.)

- P2P Carshare (Examples: Getaround, RelayRides, Ford Car Swap, etc.)
- Bikeshare (Examples: Motivate, DecoBike, Bcycle, NextBike, etc.)
- Personal Electric Transport (Examples: Enzo foldable ebike, GenZe electric bikes, Scoot (heavy scooter rental, etc.)
- Vanpooling (Examples: Enterprise, Vride, etc.)
- Commute Mode Detection Technologies (Examples: Strava, MapMyRide, Moves, etc.)
- Smartphone Transit Payment (Examples: Passport, GlobeSherpa, Masabi, etc.)
- Smartphone Parking (Examples: ParkMe, Parkmobile, Pay-by-Phone, etc.)
- Miscellaneous Apps (Examples: City Mapper, Transitscreen, Modeify – TDM Trip Planner, etc.)
- Commuter Benefits (Examples: Commuter Check Direct, Commuter Benefits, Wageworks, etc.)
- Robotaxi (Uber w Robot Driver)
- Personal Rapid Transit (Examples: 2getthere, Ultra Global (London Heathrow), etc.)
- Niche ride match (Examples: Zimride, Otto (eRide Share), etc.)
- SOV Apps (Examples: WAZE social traffic, Twist for Rendezvous, etc.)
- Niche Transport (Examples: Boost by Benz, Shuddle, Hop/Skip/Drive, etc.)

As parking and TDM programs merge to offer more comprehensive tapestries of "access and mobility management strategies", this document can be a helpful and informative resource that illustrates the scope, variety and evolution of this emerging area of the parking industry that is now being calling "shared mobility."

Making a Change

The following is one recommended approach to evaluating an overall approach to employee parking programs. These strategies may be useful for parking programs that want to adopt or support new or expanded TDM programs to improve mode split and reduce parking demand in their communities.

Employee Parking Program Assessment Strategy

After calculating your company's cost for providing employee parking, you may decide you are ready for a change. If so, here are a number of steps to be considered in developing parking management strategies:

1. Solicit top management support for parking management.
2. Form an internal committee to evaluate the parking situation and help propose strategies and solutions.
3. Evaluate site characteristics. Inventory existing parking supply and use.
4. Define objectives for parking management and evaluate appropriate actions.
5. Check labor union agreements for parking stipulations (if applicable). Include a labor representative on your internal committee.
6. Review the costs or savings associated with each strategy. For carpool and vanpool parking subsidies and preferential spaces, assess future costs by first estimating demand.
7. Integrate parking management strategies into a comprehensive commute trip reduction program.
8. Market the parking management program with the marketing of other transportation alternatives.

Above all, don't carry out parking management in isolation, but include it as part of a total commute trip reduction program. Couple parking restrictions with other transportation alternatives - all as part of a total transportation benefit package. Without sufficient alternatives, unhappy employees who continue to drive to work alone may be the most noticeable result!

Addressing Employer Concerns

Employers cite a variety of arguments to justify continuing employee parking subsidies. Many of these concerns, however, are based on inadequate information or failure to fully explore the wide range of solutions available. Here are the most common reasons for not tackling the issue of parking subsidies:

- If employers charge for parking, employees will quit
 - Many local companies can testify that dropping subsidized parking by itself does

not cause employees to quit. The key to a successful program is offering positive choices to employees. Employers should not begin a parking charge without offering attractive alternatives to driving alone.

- Charging for parking is an administrative burden
 - Setting up a computerized payroll deduction system is one way to administer a parking charge efficiently. Time spent administering the program is limited to start-up and occasional changes. Some companies, however, believe employees are more aware of the amount they pay for parking if required to write a separate monthly check, instead of having the fee taken out of their paychecks automatically. For any system, revenue from the parking charge should exceed the cost of administering the program.
- Union concerns
 - Most employers have not raised the issue of parking with their unions. This is still a largely unexplored area. However, employers will need to check with unions if they propose to take away free parking and should plan to offer other transportation benefits to balance the perceived loss.
- Inadequate commuting options for employees
 - Companies have taken widely varying approaches to overcome the problem of inadequate transit service. Some have paid for special shuttles that run between nearby park-and-ride lots and their work site. Others have begun their own vanpool program. Others have worked with local transit agencies to begin special shared-cost transit service plus vanpools tailored to the needs of a specific employee market.
 - When highly promoted by company management, ridesharing also can be effective for companies in low-density areas. Kenmore Trucks in Seattle achieved a 66 percent SOV rate primarily by promoting the use of carpools and vanpools with a combination of reserved parking spaces for rideshare vehicles and general tightening of parking supply has been an effective incentive for employees to leave their own cars at home.

- Inability to change an employer’s parking allocation written into its lease agreement
 - An increasing number of building management companies are willing to allow some flexibility in lease agreements. That flexibility is still the exception, however. Employers must check with their building management to discuss the potential for reducing their parking allocation and associated costs.
- Potential for employees to park free on streets or lots next to the work site
 - This problem is very real and is one major reason to support on-street paid parking. Paid on-street parking reserves these most convenient parking spaces for customers (and not employees). Providing cost-effective employee parking areas, ideally at a range of cost points can free off-site parking and support a range of other commute options for those employees willing to consider these alternatives. Stricter and more effective parking enforcement measures, such as leveraging new mobile license plate recognition technologies and towing from lots of adjacent businesses, also could help with reducing “spillover” parking.
- The need to deal with multiple sites
 - An employer with multiple sites may find there are equity issues in beginning a parking management program at one site and not providing the same program at the company’s other sites. Readily available transit service may help justify dropping a parking subsidy at a downtown site. Labor unions may complain, however, about a parking policy that does not apply company wide. One solution may be to offer other incentives to accompany a parking charge.

Parking Management Strategies that Work

It is not expected or even recommended that employers make a sudden change from completely subsidizing employee parking to charging employees the market rate.

Instead, a thoughtfully considered plan undertaken incrementally may be the most successful approach. Following are some ways to get employees on your side by introducing a parking charge gradually:

[Introduce a parking charge for new employees only](#)

Many companies successfully using this approach to ease into priced parking. The impact of such a strategy will depend on the company’s rate of attrition and turnover. Gradually over the years, the parking charge will come to apply to most of the site’s employees.

[Allow employees to ‘turn in’ their parking spaces voluntarily in exchange for receiving the cash value of the parking space \(“Parking Cash Out”\)](#)

The theory behind this strategy is that asking commuters to choose between a free parking space and its cash value makes clear that parking has a cost - the cash not taken. The new “price” for taking the “free” parking would increase the perceived cost of solo driving to work.

Compared with other solutions to the employer-paid parking problem, the cash option requirement is least intrusive in the employer’s decisions about employee compensation. The only added cost for an employer would be requests from current “ridesharers” for the cash value of parking subsidies they have not taken.

In choosing between a parking subsidy and its cash equivalent, employees would have to know the cash is taxable, while the parking subsidy is not. Research on commuters in Los Angeles, however, suggests that the taxable nature of cash does not diminish its attractiveness seriously.

For more information on Parking Cash-Out – See the link at the end of this paper. Parking Cash Out was published by the American Planning Association and written by professor Donald Shoup. Note: IPI just sponsored a webinar on this topic based on some recent research into the effectiveness of parking cash-out programs. This information can be provided upon request.

The following six strategies were assessed as part of this research:

- Scenario 1: Monthly Parking Cash-Out
- Scenario 2: Monthly Employer-paid Transit/ Vanpool Benefits
- Scenario 3: Monthly Parking Cash-Out + Incentive for Daily Cash-Out
- Scenario 4: Monthly Parking Cash-Out + Pre-Tax Transit Option for Employees without Subsidized Parking

- Scenario 5: Incentive to Eliminate Employer Subsidized Parking + Provide Employer-paid Transit/Vanpool Benefit
- Scenario 6: Peak Parking Surtax

Provide a transportation allowance

Some companies offer a transportation allowance when they introduce a parking charge. A transportation allowance is usually a salary increase provided to all employees or to employees who do not drive alone. If a company levies a \$40 parking charge, for example, the company may provide all employees a \$40 transportation allowance. To be effective, the parking charge should be high enough so that the out-of-pocket cash required to make up the difference between the transportation allowance and the parking fee serves as a disincentive to park. Employees who do not drive alone can pocket the extra cash. Some companies provide a transit, carpool or vanpool subsidy besides the transportation allowance.

Begin a parking charge for single-occupant vehicles, but provide discounted or free parking to “ridesharers”

When carpoolers split the cost of a normal parking charge, they already cut their parking costs. Reducing the parking charge for rideshare vehicles even more provides a significant incentive for employees to carpool or vanpool. Some businesses allow carpoolers to park free, sending a powerful message to employees that company management values and supports ridesharing. While the employer does not gain revenue from parking spaces provided free to “ridesharers”, it reduces the need for more parking. The company then may be able to reach its commute trip reduction goals or reduce their parking problems as more employees use carpools for commuting.

Begin with a low parking fee and increase it annually until it reaches market rate

Although this plan can help generate some revenue for the employer, it will not cause a significant shift to alternative commute modes for several years. As such, it is probably not as effective as beginning with a moderate charge and increasing it to market rate faster. This incremental increase will give employees a chance to adjust to the idea of paying for parking.

Provide employees with other transportation incentives while introducing a parking fee

Incentives such as a “flexpass” program, free parking days for ridesharers and guaranteed ride home are examples of programs that can help employees accept a parking charge.

Systems and Equipment to Support Employee Program Implementation

In addition, we have also provided several equipment/programmatic approaches that readers may find interesting. The resource section of this white paper includes:

- Parking Logix - The OpenSpace™ Counting Solutions are sensor-enabled speed humps for parking facilities. It includes an embedded sensor which detects and counts vehicles as they drive over the humps while entering and leaving a parking facility. The sensors can differentiate between motorized (cars, trucks, etc.) and nonmotorized (bikes) traffic to provide accurate vehicle counts for oncoming motorists. OpenSpace™ sensors have been designed with a battery life of 3 years and are covered by a full 2 year warranty.
- Parkifi - Parkifi provides real-time spot occupancy visibility on an easy-to-use dashboard, potentially making a city’s on- and off street spots more profitable and efficient.
- Streetline - Parking Data and Analytics: What Can Your Parking Spaces Tell You?
- Locomobi - is an information technology leader that delivers innovative enterprise hardware and software solutions, including a revolutionary License Plate Recognition (LPR) system, for some of the biggest names in parking and transportation in North America. LocoMobi’s full vertical integration allows for the unique ability to custom tailor true end-to-end parking and transportation systems through modular application. From equipment and hardware to cloud-based solutions and mobile payments, LocoMobi accommodates a broad range of environments that include municipalities, commercial and residential buildings, airports, universities, hotels, self-storage facilities and campgrounds. In addition, LocoMobi provides unique solutions for the tolling and transit markets.

- LUUM – LUUM is one of the most comprehensive commute management platforms available today. See the following link for more information: <https://www.luum.com/>.

In Summary

Changing your parking policy to help maximize the use of existing parking resources doesn't have to be painful. Integrating parking and commute management strategies can help mitigate parking demand and increase commute options and simultaneously free up parking for customers and other visitors. You can use it to reward employees who rideshare and increase employee satisfaction by making parking and transportation programs more equitable.

Appendices/Resources

Employee parking programs vary greatly depending on a wide range of factors including community size, program sophistication, parking supply/demand, availability of high-quality transit and transportation alternative programs.

In the Appendices/Resources section of this paper, we have included a variety of "case study examples" which we hope will provide both examples of the variation in program types and specific program elements. These "case study examples" come in the form of program policies, marketing and employee information documents.

Probably the most advanced and sophisticated program we are aware of is the excellent program developed and implemented at Seattle Children's Hospital which has evolved into the LUUM software program. A case study of this program can be found at: <http://www.nunes-ueno.com/case-study.html>.

Another great resource noted in this paper is a document created by the Association of Commuter Transportation entitled: *Getting to Work – Spotlight on Employer-Sponsored Commuter Programs*. This document can be found at: <http://actweb.org/wp-content/uploads/2017/01/Getting-to-Work-Jan-2017-Final.pdf>

The Donald Shoup book on "Parking Cash-Out" is another recommended resource. This book can be found at: <http://shoup.bol.ucla.edu/Parking%20Cash%20Out%20Report.pdf>

In addition to the resources noted above, the following additional resources are provided as separate documents:

Appendix # 1: ACDA Employee Parking Program

Appendix # 2: UNC Employee Parking

Appendix # 3: Sacramento Discount Employee Parking Program

Appendix # 4: City of Palo Alto, CA - A Better Place to Work & Park

Appendix # 5: Newport Beach, CA – Employee Parking Program

Appendix # 7: MUSC Employee Parking Services

Appendix # 8: Generic Employee Parking Policy

Appendix # 9: City of Pomona – Employee Parking Policy

Appendix # 10: Phoenix Sky Harbor Airport Employee Parking Policy

Appendix # 11: City of Houston Employee Parking Policy

Appendix # 12: Mayo Clinic Employee Parking Brochure

Appendix # 13: Mayo Clinic Nursing Parking

Strategy 4:

Review MPC Organizational Structure

Strategy Implementation Timeframe: ● ○ ○

Short-Term Strategy

Introduction

As part of the parking system strategic plan update being conducted in association with the Missoula Downtown Master Plan Update, it was requested that we assess a variety of different potential organizational models. One concern expressed by City administration is that parking is often not part of the City's decision making process. Parking can be a critical element for enhancing the overall downtown experience. Well-managed, customer-oriented parking facilities encourage visitors to shop, work, and explore local cultural and entertainment options by improving access to downtown attractions, reducing traffic congestion, and clearly informing users about regulations and fee structures associated with available parking. The creation of a customer-centric parking system supports commerce; promote the City's transportation, sustainability, and traffic mitigation goals; and advances the broader objectives of economic development and downtown vitality.

This report section examines a number of effective parking management operational methodologies and organizational frameworks that could serve as alternative models for parking district management whether focused on downtown or adjusted to have a more city-wide scope.

Parking program reorganization initiatives are often the result of larger community-wide strategic or transportation plans or downtown master planning projects. While there are multiple organizational options to consider, and we are largely agnostic as to which option a community adopts, however, the one aspect that we do stress as being critical to success is the concept of "vertical integration" as discussed below.

Parking Management Program Organizational Options

Over the past several years, we have conducted extensive research on how parking systems evolve organizationally. This area of interest emerged in conjunction with our research and documentation of parking management best practices from around the country.

MUNICIPAL PARKING SYSTEM EVOLUTION

Many parking systems, especially in municipal environments, have evolved over time into organizational structures that we have termed "horizontally fragmented." This means that various parking system components are spread among multiple departments or entities. It is important to realize that when these systems were first created, parking management as a profession had not fully developed.

The following examples illustrate how many municipal parking programs evolved and reflects the "functional fragmentation" that this approach can engender.

There was a need to establish a parking function. The initial need was to manage on-street parking assets. Because Public Works already managed the streets, this function was located under the Public Works Department.

When the need for an enforcement function achieved critical mass, this was logically assigned to the Police Department as enforcement was their specialty.

Over time, off-street lots and parking structures were added. The management of these resources was placed under the Facilities Management Division because they managed the City's real estate assets and facilities.

Soon there was enough revenue being generated that an audit/accounting function was established to ensure accountability over the revenues and expenses. This function was placed under the Finance Division.

Fast forward to today. Your community is making impressive advances in downtown development and revitalization. A new downtown master plan sets the vision for further downtown development. The plan identifies specific transportation and parking action items needed to support the new downtown vision. Parking emerges as a significant element. Stakeholder comments include, "All these

issues are important, but nothing works without parking.” “Parking is impacting everything we are trying to achieve as a community!” “If parking is this important, are we sure that the parking system is organized to be as efficient and effective as possible?” “How is our parking system organized anyway?” This discussion is happening all across the country and parking system organizational assessments are becoming much more common.

In a horizontally fragmented parking program, where each department only manages one aspect of the parking system (such as on-street parking, enforcement, or off-street parking facilities), no one has responsibility or the perspective and understanding of all the functional areas to manage all these interrelated components as a system. In one study where different departments each managed a small component of the parking supply along with responsibilities for several other areas, the observation was made that “parking was everyone’s part-time job, but no one’s full-time job”. Under this scenario, there is no overall accountability for parking as a system.

It is interesting to note the variety of ways in which the horizontal fragmentation of parking systems has evolved in different cities. Some have evolved along the lines of assigning different functions to various departments as noted in the illustration above. Some have peculiar combinations of functional and geographic divisions. Another category related to parking system organization and management has to do with whether the municipality has chosen to invest in the development of a significant off-street parking program (i.e., construction/management of parking structures/lots). Finally, the community’s approach to self-management of resources versus outsourcing certain functions also plays a role.

PARKING SYSTEM ORGANIZATIONAL FRAMEWORKS

Parking management best practices from a program organizational perspective, center on the concept of a “vertical integration” of parking functions. This contrasts with the typical “horizontally fragmented” organizational structures that tend to evolve naturally in many municipal parking organizations across the U.S.

Horizontally fragmented systems are defined by the compartmentalization of parking functions and responsibilities, such as on-street parking, enforcement, and off-street parking management and maintenance, among multiple, disparate departments or entities. The police, facilities management, public works and accounting departments all may play a role, yet no singular entity has responsibility for, perspective on, or understanding of all of the interrelated functional areas that comprise a parking system. In this scenario, there is no overall accountability for parking. Or put another way, parking is everyone’s part-time job, but no one’s full-time responsibility.

In a vertically integrated system, parking is managed as a cohesive system. At a minimum, one entity manages on-street parking, off-street parking, and parking enforcement. More advanced models include parking/transportation planning, transportation demand management programs, and, in some communities, transit system management. Vertically integrated systems can be self-managed, or management can be outsourced/contracted via management or concession agreements. In our view, the current “Parking Commission” model currently in place in Missoula, is a good example of a vertically integrated system. Another special aspect of how parking is organized and managed in Missoula is the excellent working partnerships between the MPC, the MRA and the Downtown Partnership.

While the discussion above reflects what we often find in communities around the country, Missoula already has an effective “vertically integrated” organizational model and while any program can be enhanced or occasionally needs to be modified to meet emerging needs, we strongly encourage Missoula not to abandon the principle of “vertical integration” that has helped make the Missoula Parking Commission the successful program that it is. Said another way, keeping one entity responsible for managing on-street, off-street and enforcement of parking (at a minimum) should be maintained.

Below are descriptions of various alternative parking system organizational models that Missoula could consider as they engage in reassessing the current parking program in the context of updating the downtown master plan. Each of these models has its own strengths and weakness depending on

factors including the parking system's size, degree of development, programs offered, political landscape, and community goals, among others. Despite the details, they all address the major problem associated with horizontally fragmented systems. Each model should be carefully evaluated to determine which can be utilized to design a parking program that most effectively achieves the City's unique goals, objectives, and priorities. The following section provides a high-level overview of the most successful organizational models from communities across the country.

Consolidated (“Vertically Integrated”) City/District Department Model

The consolidated or “vertically integrated” city/district department model is characterized by a department head with complete responsibility for the management of all parking-related program elements. Primary elements include management of off-street parking facilities, on-street parking resources, overall program financial performance, parking system planning, and enforcement. Other responsibilities may include transportation demand management, marketing, the implementation of new technologies, and mobility management, among others.

Parking Authority Model

In the parking authority model, a detailed management agreement and defined mission and vision guide all aspects of parking operations. In most cases, a small staff led by a president or executive director engages a private parking operator to manage day-to-day operations. This model places all of the major stakeholders at the same table via a parking authority board or commission, which often results in all parties gaining a deeper understanding of the complexities of parking and the often-competing interests of various constituent groups. The parking authority model often has bonding capacity.

“Contract” or Business District Model

In an increasing number of communities around the country, downtown business improvement districts or downtown development authorities have taken over operational responsibility for parking. Parking is governed by a well-defined operating agreement that sets specific expectations and guidelines for the management of parking assets. These contracts or operating agreements are typically

reauthorized every three to five years based on whether the defined contract goals were achieved. If reauthorized, it is not uncommon for new goals and program objectives to be set for the next contract period.

Parking District Model

The parking district model is defined by an overarching goal of creating a comprehensive parking management function under the aegis of one management entity. In most cases, the parking district's geographic boundaries and responsibility for district improvements (parking, transportation demand management, clean and safe programs, events/programming, etc.) are managed to by the district to better promote downtown vitality and activation. Parking thus becomes a tool for economic development, place making and other larger district goals. While specific implementation policies can vary significantly, parking revenue is collected and managed by the district for reinvestment in the district in this model. Revenue sources can include special assessments, off and on-street parking, special events, advertising, in-lieu-fees, enforcement revenues etc.

Professional Services Model

In the professional services model, a small, professional parking services group works in conjunction with an outsourced parking management firm. The parking services group defines the overarching vision and mission, while the management firm is responsible for day-to-day parking operations. Because daily operations are outsourced, a lean group of management professionals can focus on the strategic goals of the parking program without becoming distracted by the wide range of operational issues common to parking programs.

Parking Management Collaborative Model

This approach was developed for communities that have not developed a significant off-street public parking system and therefore do not have the ability to influence the off-street parking market in traditional ways. The collaborative model is aimed at developing a comprehensive approach between private, off-street parking assets and on-street parking to make the downtown more accessible to visitors. The primary objective is to develop a “parking management program overlay” to establish a well-coordinated user-friendly parking system

marketed as a cohesive public parking program. While the approach requires only a small, highly effective staff, an executive-caliber program director is essential for the strategy to succeed. The support of major community parking property owners is also vital.

“EcoDistrict” Model

The EcoDistrict model integrates sustainability as a defining element of the parking and transportation organizational framework. The EcoDistrict model recognizes that parking management can advance community-scale sustainability performance goals through strategies including energy and water management, use of alternative modes of transportation (e.g., transit, bicycles and pedestrians), and development of trip reduction and car-sharing programs. Parking revenue can also be invested in a variety of sustainability initiatives, such as the use

of permeable pavement and other low-impact development techniques in municipal parking lots. Like many of the organizational models, the EcoDistrict has many variations. It shares a sense of purpose, need for stakeholder engagement, and broad economic development focus all viewed through a lens of “sustainability” that make its approach appealing to many environmentally progressive communities.

The current Missoula Parking Commission model is essentially a hybrid of the Consolidated City/District Department Model, the Parking Authority Model and the Parking District Model and in our opinion has been highly successful and a model for other communities.

The following table provides a summary of the more common organizational models.

	Consolidated Department	Parking Authority/Commission	Contract/Business District	Parking District
Defining Characteristics	All primary parking functions under one functional department.	Parking management responsibilities managed by an executive director and a community-based board.	Leverages an existing strong and effective business district or development authority.	Defined geographic area and may include other funding sources such as special assessments, in-lieu-fees, impact fees, etc.
Organizational Structure	Vertically integrated department within the city structure.	An authority or commission structure created by city council with defined responsibilities and objectives. Typically led by a community-based board of directors and an executive director.	An existing organization that has proven its effectiveness is given responsibility to manage parking via a well-defined management agreement.	A district-based board is created to manage parking within a defined area leveraging district-based funds to meet parking and transportation needs.
Critical Elements	The common and critical element of all these options is the “vertical integration” of all aspects of parking management under a single operational entity (compared to the typical municipal fragmentation of various functions such as: enforcement, operations, on-street, off-street, finance/accounting, planning, etc.) Managing all program components in a comprehensive and integrated manner allows for improved synergies, policy coordination and enhanced program performance organized around a holistic program vision and mission.			

	Consolidated Department	Parking Authority/Commission	Contract/Business District	Parking District
Primary Advantages	City retains maximum control and is generally easiest to achieve politically.	Provides a degree of separation from politics. Engages key stakeholders in a meaningful way.	Leverages strong and existing agencies that have a vested interest in seeing parking and transportation issues effectively addressed.	Creates a geographically based entity that is focused on leveraging district-based revenues to create specific district-based solutions.
Primary Disadvantages	Parking may not be a core competency, may require investments in staff and resources. City remains the focus of parking concerns which can lead to undesirable political issues	Some relinquishment of City control. Can create “yet another board” that already invested community members may not have the bandwidth to accept.	Some relinquishment of City control. It is important that the BID critically assess its capacity to take on this complex venture and that their board is fully informed and on-board. Can lead to taking the agency “off-mission” if not done well.	Addresses only a limited area and therefore may have limited resources.
Bonding Capacity	Yes (via municipality)	Varies	Not through contractee, though yes through contracting municipality	Varies
Example	City of Fort Collins, CO City of Colorado Springs, CO	Philadelphia Parking Authority, Pittsburgh Parking Authority, Missoula Parking Commission	Ann Arbor DDA, Capital City Development Corporation – Boise, ID	Boulder (CO) Downtown and University Hill Management District

PARKING SYSTEM OPERATIONAL METHODOLOGIES

Another aspect of parking system organizational structures is “operating methodologies”. There are three primary methodologies for operating parking programs:

1. **Self-Operation:** The managing entity or owner operates the parking program itself. The owning entity receives all gross parking revenues and pays for all operating expenses. Self-operation requires the involvement of internal administrative and managerial staff at a higher level than other operational methodologies. While self-operation allows the owners to have greater control over service and planning, it often comes with higher expenses, costs, and assumption of financial risk. This is current operational model used by the Missoula Parking Commission.
2. **Outsourced Management Contract:** The facility owner or managing organization contracts a private parking management firm to handle day-to-day operations and maintenance through a management contract, while the owner retains complete control over staffing levels, validation policies, parking rates, and customer service policies. The private parking management firm is paid a fixed management fee and/or a percentage of gross revenues and is reimbursed by the owner for all costs incurred in the operation. This is an effective option if the City has not made the investments that result in a parking being a “core competency” of the municipal operation.
3. **Outsourced Concession Agreement:** The facility owner or managing organization contracts a parking management firm to assume full responsibility for all aspects of the operation, including expenses and most liabilities, and the parking management firm pays the owner a guaranteed amount and/or a percentage of gross revenues (or a combination). The concessionaire has much more control and autonomy under this approach.

A variation on the concession agreement methodology that is being introduced in the U.S. market is parking system “monetization”. Sometimes referred to as public-private partnerships or PPPs, monetization is very similar to the concession agreement approach except the term of the contract is much longer, and

the owning entity receives a large cash infusion at the front end of the lease that is paid back with significant financing and other fees over concession lease’s term. This approach is not recommended for Missoula.

PROGRAM GOALS AND GUIDING PRINCIPLES

While the options for a vertically-integrated organizational approach and operational methodology can widely vary, each is based on the core recognition that parking significantly impacts the economic vitality and growth of the downtown area. Each model must be carefully considered in terms of Missoula’s specific goals. The importance and impact that a well-managed public parking system can have in creating a vibrant and healthy downtown should not be underestimated.

With this in mind, it is helpful to begin the process of reassessing the parking program’s organizational structure and approach to parking management by defining a preliminary set of goals and guiding principles. These principles should serve as the program’s foundation, help define priorities, and support community partnerships. Undertaking this exercise helps ensure that overall program goals and objectives are well considered before evaluating specific organizational options. A draft vision statement and mission statement have been developed for the City as follows:

Draft Vision Statement

The Missoula Parking Management Organization will strive to develop a superior, customer-oriented parking system, responding to the current and future needs of parkers, including visitors, employees, employers, developers and property owners, through active planning, management, coordination, and communications.

The Parking Management Organization shall be considered an integral component of the community’s economic development strategies and mobility management programs.

Draft Mission Statement

The Missoula Parking Management Organization is committed to enhancing the parking experience for Downtown Missoula’s customers and stakeholders. Parking and transportation policies, planning, and programs will effectively support the community’s strategic master plan goals and objectives.

Guiding Principles

Furthermore, a set of draft guiding principles have been developed to serve as the framework for short- and long-term decision making and the implementation of parking management strategies. They are intended to support the on-going economic development and vitality of Missoula while supporting the City-wide access and business district strategic plans. Teamwork and collaboration between the parking management organization, City officials, downtown and transportation agencies, and other stakeholders should be a key for success moving forward. See the section below for a draft set of parking program guiding principles.

Program Goals and Guiding Principles

SETTING THE RIGHT COURSE

Before embarking on the development of a parking management district or similar entity, we recommend that you undertake an exercise to develop a preliminary set of program goals and guiding principles. These principles will serve as the program foundation, help set priorities and establish or reinforce community partnerships.

The purpose of this approach is to ensure that the overall program goals and objectives are well defined before evaluating specific organizational options.

Draft Guiding Principles Categories

1. Organization/Leadership
2. Customer Service Orientation
3. Community and Economic Development
4. Integrated Transportation/Sustainability
5. Leveraging Technology
6. Communications/Branding /Community Education
7. Program Development/Responsiveness
8. Information Clearinghouse/Coordinated Programs
9. Planning /Urban Design
10. Safe, Attractive & Well-Maintained Facilities
11. Effective Management/Accountability
12. Self-Funding/Accountability

A statement better defining each the twelve draft guiding principles is provided below.

GUIDING PRINCIPLE # 1: ORGANIZATION/ LEADERSHIP

The parking management program will be organized to be “vertically integrated” with responsibility for:

- Managing on-street parking
- Coordination of off-street parking
- Parking enforcement
- Parking planning and development
- Parking demand management

Consolidating the various parking functions under a single parking management organization establishes a consolidated system that is action- oriented, responsive, and accountable with improved coordination and operating efficiencies.

Recruiting a strong leader is a key element for success. The organization leader must have strong vision and communications skills, specialized parking and planning expertise, and be capable of educating other community leaders, stakeholders, and private sector partners on the importance and relevance of a strong parking management organization. Strong general management and financial program development skills are also required.

GUIDING PRINCIPLE #2: CUSTOMER SERVICE ORIENTATION

Parking will support Missoula as a desirable destination for workers, businesses, shopping, dining, and recreation by making parking a positive element of the overall community experience.

The Parking Management Organization will strive to develop and coordinate private and publicly owned parking facilities that are clean, convenient and safe.

Parking enforcement staff will present a friendly and professional appearance and receive on-going customer service, conflict management and community ambassador training.

Responsiveness to community needs, openness to fresh ideas, and active participation in community planning and events will be among the ongoing goals of the parking management organization.

One major goal of the parking management organization is to create for the visitor/parking patron an easily understandable and accessible parking

program. This will be accomplished through the use of common branding and marketing, an integrated signage plan, validation programs, a web-based information clearing house, special events program coordination, and other programmatic components.

Management of the on-street parking system will be enhanced through an investment in new technology and more customer friendly parking enforcement policies.

GUIDING PRINCIPLE # 3: COMMUNITY & ECONOMIC DEVELOPMENT

The parking system will be guided by community and economic development goals and adopted policy directives that are the result of collaborative processes between parking management organization staff, other agencies, and involved stakeholders.

The parking management organization will use its resources to promote mixed-use and shared-use parking strategies and alternative transportation modes through the creation of incentives, partnerships, and programs to attract private investment. This will include reviewing and updating existing city parking requirements, as appropriate.

GUIDING PRINCIPLE # 4: INTEGRATED MOBILITY MANAGEMENT / SUSTAINABILITY

The Parking Management Organization will support the City's Transportation Master Plan to promote the "Park Once" concept and a balance of travel modes, including light rail, bus, streetcar, vehicular, bicycle, and pedestrian, to meet community-wide access goals.

The parking management plan will promote a "park once" strategy that uses parking supply efficiently and emphasizes "linkages" to other forms of transportation.

Sustainability or "green" strategies that can result in more efficient use of parking facilities and provide other benefits, including reduced congestion, improved transportation choices, more efficient land use, and improved streetscape aesthetics will be explored and supported.

Smart parking technologies will be leveraged to advance performance-based pricing to balance varying demand within the fixed supply of parking resources and produce on-street space vacancy of about 15% per block face.

One of the big changes in the industry since the last downtown master plan is the merging of parking and mobility management. We believe this is a key factor for Missoula to assess as it considers alternative parking management options as is reflected in other areas of the downtown master plan update.

GUIDING PRINCIPLE # 5: LEVERAGING TECHNOLOGY

The Parking Management Organization will be an early adopter of technology solutions to enhance customer service and parking information options. A key goal is to make parking less of an impediment to visiting downtown and more of an amenity.

Technology will be leveraged to streamline and simplify access to parking and will be a key parking management strategy. Another key technology related goal is to enhance the efficiency and effectiveness of parking management staff and programs.

A prime example of the use of technology to leverage improvements in customer service, enforcement, and system efficiency is the conversion of on-street revenue collection from traditional single-space, coin-operated meters to newer multi-space meters that accept credit cards as a payment option. This conversion can provide more convenient payment options for patrons, real-time data for streamlined enforcement, and better use of the curb space.

Missoula has largely tackled the issue of updating its system technologies in the past several years based on recommendations from the last downtown master plan. While this area constantly in flux and deserves on-going focus, the MPC's current system is largely current with industry best practice. One area for potential investment in this area might be for systems to better monitor utilization of parking resources on an on-going basis.

GUIDING PRINCIPLE # 6: COMMUNICATION/ BRANDING/MARKETING & COMMUNITY EDUCATION

Parking management programs and facilities will be developed to function as a positive, marketable asset for Missoula.

Parking management strategies and programs will be cross-marketed to promote Missoula as a unique and visitor-friendly regional destination. Parking availability shall be well-publicized to enhance the perception of parking as a positive element of the community experience. Reinvestment of parking resources back into the downtown will be promoted. The Parking Management Organization will develop an effective branding program.

In addition to web-based information, the Parking Management Organization will develop educational materials on topics such as parking development trends and parking safety tips. The organization will also promote discussion with parking facility owners/operators on topics such as facility condition assessments, maintenance program development, and parking management best practices, among other topics.

This is seen as an area in which the MPC could improve. The MPC should work closely with the downtown business improvement district, the redevelopment agency, the City's Community and Economic Development department and other community agencies/stakeholders to promote, educate and market parking programs in Missoula.

GUIDING PRINCIPLE # 7: PROGRAM DEVELOPMENT/RESPONSIVENESS

The Parking Management Organization will be responsive to the needs of a diverse customer and citizen base.

The Parking Management Organization should aim high and strive to achieve a best-in-class parking program. All aspects of Missoula parking should reflect an understanding of what the customer desires in terms of a positive and memorable experience.

Special programs to address topics such as retail enhancement initiatives, shared-use parking, employee parking, special/large events parking, and others will be developed. These programs will be developed in a collaborative manner and designed to

support larger community goals and objectives.

Finding a way for the MPC to be more responsive the community on a city-wide basis has been identified as an emerging issue.

GUIDING PRINCIPLE # 8: INFORMATION CLEARINGHOUSE / COORDINATED PROGRAMS

The Parking Management Organization will develop a parking information clearinghouse and coordination of on-street, off-street, and special event programs.

The Parking Management Organization shall take a lead role in parking program coordination. From a planning and information clearinghouse perspective, the organization should be a unifying and centralized resource that coordinates and distributes information related to parking supply, availability, planning, special programs, event activities, and other resources.

This will be accomplished through physical signage, branding and marketing, a robust planning/monitoring function, and a strong web-based information program.

GUIDING PRINCIPLE # 9: PLANNING / URBAN DESIGN

The Parking Management Organization shall have an active and comprehensive planning function and will:

- Be included in all strategic and transportation planning efforts.
- Work with City staff to review and evaluate parking zoning requirements, the development of parking design standards that promote good urban design principles related to parking structures and mixed-use projects, and the creation of transit-oriented development parking standards.

Effective parking planning will mean an improved understanding of parking supply/demand and the development of parking infrastructure that will enhance and better support community strategic goals and urban design. Improved communication/collaboration with City planning, the MRA, Missoula In Motion and other related agencies will be critical going forward along with enhancing systems to better monitor parking resource utilization and availability as well as planning for future parking supply additions.

GUIDING PRINCIPLE # 10: SAFE, ATTRACTIVE AND WELL-MAINTAINED FACILITIES

The Parking Management Organization will promote standards to encourage comprehensive and proactive facility maintenance and security plans throughout the community. Emphasis will be placed on enhancing parking facility appearance, maintenance, safety, and security regardless of facility ownership.

Facility maintenance reserves and other maintenance best practices will be encouraged in City-owned facilities. Publicly available parking facilities marketed through the Parking Management Organization will agree to a set of parking facility standards developed by the community. Participating facilities will be routinely monitored.

Some parking facilities will incorporate public art, creative level identification and theming to enhance the parking experience for their patrons while making larger parking facilities more navigable. Continued development of these initiatives should be supported.

GUIDING PRINCIPLE # 11: EFFECTIVE PARKING MANAGEMENT / ACCOUNTABILITY

The Parking Management Organization will be a forward thinking, “best-in-class” parking program.

Components of such a program include:

- The Parking Management Organization should anticipate future patron needs in the context of the downtown transportation and economic development plans as well as other community planning initiatives and seek to integrate supportive parking and multi-modal access strategies as appropriate.
- Evaluation of other parking management best practices and new technologies should occur on an on-going basis. Emerging concepts such as “curb-lane management”, “data driven management”, etc. should be understood and applied as appropriate for Missoula.
- Effective facility maintenance, infrastructure reinvestment, and other system management fundamentals should be routinely addressed.

GUIDING PRINCIPLE # 12: SELF-FUNDING / ACCOUNTABILITY

The parking system will be financially self-supporting and accountable to stakeholders.

Parking management will work toward developing a parking system that is self-supporting and sets aside funds for maintenance reserves and future capital asset funding.

By aligning approved parking revenue streams from on-street, off-street, enforcement, and potentially special assessment fees and fee-in-lieu programs, it is possible to develop a parking system that self-funds all operating and maintenance expenses, facility maintenance reserves, planning studies, and future capital program allocations.

A consolidated parking revenue and expense statement should be developed to document all parking related income streams and expenditures to give a true accounting of parking finances.

This has emerged as key issue for Missoula. In another section of this report, a variety of strategies for financing future parking infrastructure has been provided. Assessing the current bonding capacity of the MPC program is also recommended to better inform the consideration of potential funding strategies.

GUIDING PRINCIPLES SUMMARY:

- If adopted, these guiding principles would serve as a foundation for short- and long-term decision making and implementation of parking management strategies for the City parking management district.
- These strategies are intended to support the on-going economic development and vitality of Missoula. **This is a process—not a one-time task.**
- Teamwork and collaboration between the Parking Management Organization, City officials, downtown and transportation agencies, and other stakeholders will be a key for success moving forward.
- The Parking Management Organization should support the larger City-wide transportation plan and business district strategic plans.

Strategy 5: Truck Loading Zones

Strategy Implementation Timeframe: ● ○ ○

Short-Term Strategy

Background

On-street truck loading zones (TLZ) allow for the efficient delivery of freight to businesses. Effective TLZ management is necessary to ensure that businesses can receive on-time deliveries and operate effectively in constrained urban environments.

The physical design of urban streets poses several challenges for accommodating a diversity of street users. Many of these challenges are a consequence of competing demand; e.g. balance in the needs of diverse ground floor users with upper floor office and residential uses. Loading/unloading near the Wilma has been an on-going challenge for MPC as well as the theater, creating both logistical and potential safety issues.

The MPC does not currently have a specific loading zone policy. MPC parking enforcement officers enforce from regulation 10.02.110 - Freight curb loading zone. This regulation can be located in the Missoula Municipal Code Chapter 10, section 30, Loading and Unloading. "Freight curb loading zone" means a space adjacent to a curb for the exclusive use of vehicles during the loading or unloading of freight or passengers."

The guidelines provided below are intended to provide a framework for making informed decisions leading to durable, flexible, and effective on-street TLZ management. The guidelines focus exclusively on the on-street system, and do not address off-street loading space requirements.

- Establish truck loading zones in areas that are as close to the receiving areas of shipping/receiving businesses as possible to reduce delivery/pick-up time and disruptions to pedestrian and vehicular traffic that could result from moving goods to and from the truck.

- Designate truck loading zones to balance the various user demands. There are typically competing demands for curb space (i.e., shoppers and business patrons may need on-street parking during business hours, while residents may demand on-street parking overnight). Commercial loading zones should be established to meet freight needs while being sensitive to other demands for curbside space.
- Through a data-driven process, consider greater use of "combination zones" to maximize the efficiency of truck loading zones to meet demand and capture capacity in periods of low or nonuse for freight delivery. Combination zones allow spaces to serve Truck Loading Zone (TLZ) functions during designated periods and to be used as timed zones for visitor or residential uses at other times of the day. This increases overall efficiency of TLZs.
- Enforcement of parking and loading rules should be consistent. To ensure that curbside truck loading space is used effectively without impacts to traffic operations and safety, enforcement of parking and loading rules is critical. Enforcement of time limits and vehicle types allowed to park in the loading zones discourages parking by passenger vehicles in these loading zones during designated TLZ hours.



Combination Zones

Combination zones allow spaces to serve Truck Loading Zone (TLZ) functions during designated periods and short term parking at other times of the day.

Desired Outcomes: Adequate Loading Zones, Parking, and Enforcement

Freight carriers rely on loading zones and parking to support loading and unloading of goods. In urban environments with few loading docks or off-street loading zones, loading and unloading activities tend to occur curbside. Commercial loading zones tend to be located in front of commercial buildings with designated signage for the loading zone. Curbside loading zones may be enforceable during certain periods of the day, corresponding with business hours or off-peak delivery periods. Some key outcomes for managing on-street loading zones include:

Implementing A Truck Loading Zone (TLZ)

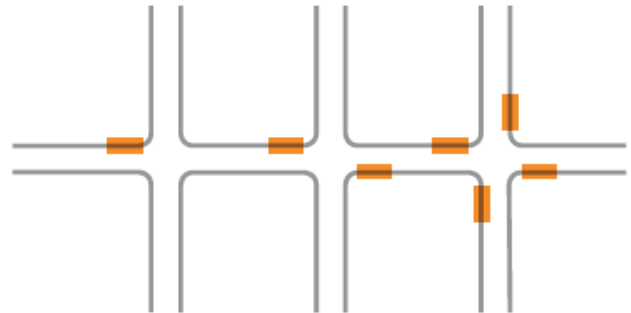
The MPC desires to improve the current system associated with TLZs, while recognizing that there is no one-size-fits-all solution. The following elements for managing and providing TLZs are recommended:

1. Establish 3 to 5 Standard Loading Zone Sign options
 - There are currently a variety of different signage designations for loading zones. This proves confusing for customers and cumbersome to manage effectively. The ideal is to ensure that loading demand is fully accommodated but allow access to such spaces for other uses when loading access is not needed. Table 6-1 provides a summary of recommended/updated signage.
2. Maximize use of combination zones for both TLZ and customer/visitor use
 - The demand for parking in commercial districts has grown significantly. The ability to use TLZs as combination zones (for customer/visitor use) will maximize the overall capacity of parking on-street while providing TLZ access for delivery vehicles.
3. Establish preferred location on block
 - Clearly sign and mark loading zones to discourage use or encroachment by private vehicles. Locate loading zones near corners to facilitate maneuvering trucks in and out of curbside spaces. Locating TLZs on the far side of the block is the preferred approach when feasible.

4. Maintain current 30-minute time limits in truck loading zones (during TLZ designated hours)
 - Time limit loading zones (30 minutes) to encourage use only while actively loading or unloading.
5. Limit TLZs on certain types of streets
 - Limit the use of TLZs to only certain street character designation types.
6. Initiate a review process to confirm on-going need for TLZs
 - Often, businesses that request TLZs move or turnover, leaving previously approved TLZs underutilized or unnecessary. The City will review loading zones at least once every two years to ensure that they are in use and serving business needs. This is a housekeeping exercise that will keep better data on the

number of TLZs, their use and benefit to area businesses.

- Such a review ensures that the number of TLZs is appropriate and business needs are being effectively served for both loading and customer/visitor demand. Key metrics to collect as part of the review should include TLZ occupancy, turnover, duration of stay, violation rates, and peak hour of use.



TLZ DESIGNATION	COMBINATION ZONE OPTION	COMMENTS
7AM – 7PM MON – SAT	Yes	Open for any use 7PM – 7AM.
7AM – 11AM MON – SAT	Yes	Combination Zone option 11AM – 7PM. Unregulated SUN.
7AM – 2PM MON – FRI	Yes	Combination Zone option 2PM – 7PM. Unregulated SAT/SUN.
10 PM – 7AM ALL DAYS	Yes	Combination Zone option 7AM – 7PM. Short-term parking for customers.
ALL HOURS ALL DAYS	No	Demonstrated need for 24-hour zone.

Table 6.1

TLZ DESIGNATION	RECOMMENDED STREETS
7AM – 7PM MON – SAT	Boulevard / Undesignated
7AM – 11AM MON – SAT	Boulevard / Undesignated
7AM – 2PM MON – FRI	Boulevard / Undesignated
10 PM – 7AM ALL DAYS	Retail/Commercial
ALL HOURS ALL DAYS	Boulevard / Undesignated

Strategy 6:

Modernize Parking Codes/Ordinances/Policies

Strategy Implementation Timeframe: ● ● ○

Medium-Term Strategy

Recommendation Details

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 TDM as the first choice, making traffic reduction and parking demand a priority. Conventional approaches to development oftentimes require more investment than development is capable of providing, 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

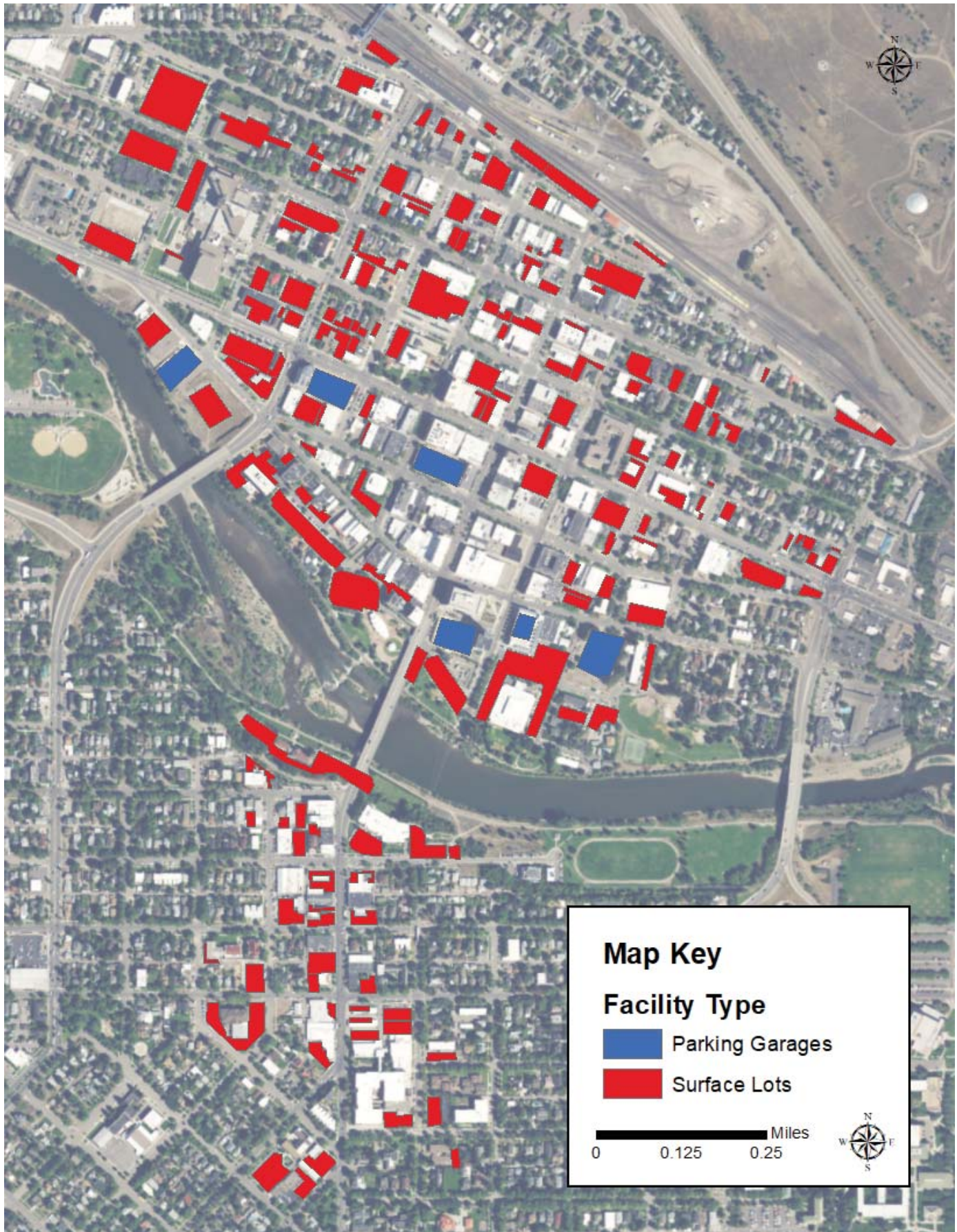
The process is intended to help developers understand mitigation options, rather than simply pointing to code-required parking and traffic improvements. Many communities have created TDM calculators as part of the development review process, helping developers realize multiple concepts to support demand 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 also the community surrounding it. These are typically candidates for in-lieu fee funds.
- **Bicycle facilities.** Bike parking/storage above code requirements, bike showers/lockers, bike share, and other cycling amenities for the development and surrounding community.
- **Carpooling and ridesharing.** Development-based ridesharing subsidies, shuttling, guaranteed ride home, and carpooling programs to support reduced vehicle ownership.

- **Carsharing.** Shared cars on the site of the development, incentivizing a reduction in car ownership.
- **Unbundling parking.** Removal of free parking in housing or office space and having tenants pay the true cost for that parking to reduce the reliance on the personal automobile and incentivize better commute decision-making.
- **Centralized shared parking.** In the place of on-site parking, development pays into a fee-in-lieu program to promote more centralized parking and reduce the number of spaces contained in a community.
- **Promoting transit.** Developers provide subsidized transit, provide shuttles/connectors to destination areas or contribute to transit system improvements (vehicles, routes, stops, etc.).
- **Affordable housing.** Affordable housing in development to trigger mitigation points that lessen the transportation and/or parking burden.
- **Education, Marketing, and Information.** Developers contribute funds to the City's non-automotive education programs to educate users and the surrounding community of the benefits of using non-vehicular means.

As the City assesses updates to zoning codes, ordinances and parking requirements, the concepts of modern mitigation should be evaluated to further reduce the reliance on the personal automobile in downtown Missoula and in the surrounding community. The map on the next page illustrates the predominance of surface parking in downtown Missoula.

City Development Services will take the lead on this strategy item with coordination with the Missoula Parking Committee.



Strategy 7:

Parking Commission Expansion and Growth

Strategy Implementation Timeframe: ● ● ○

Medium-Term Strategy

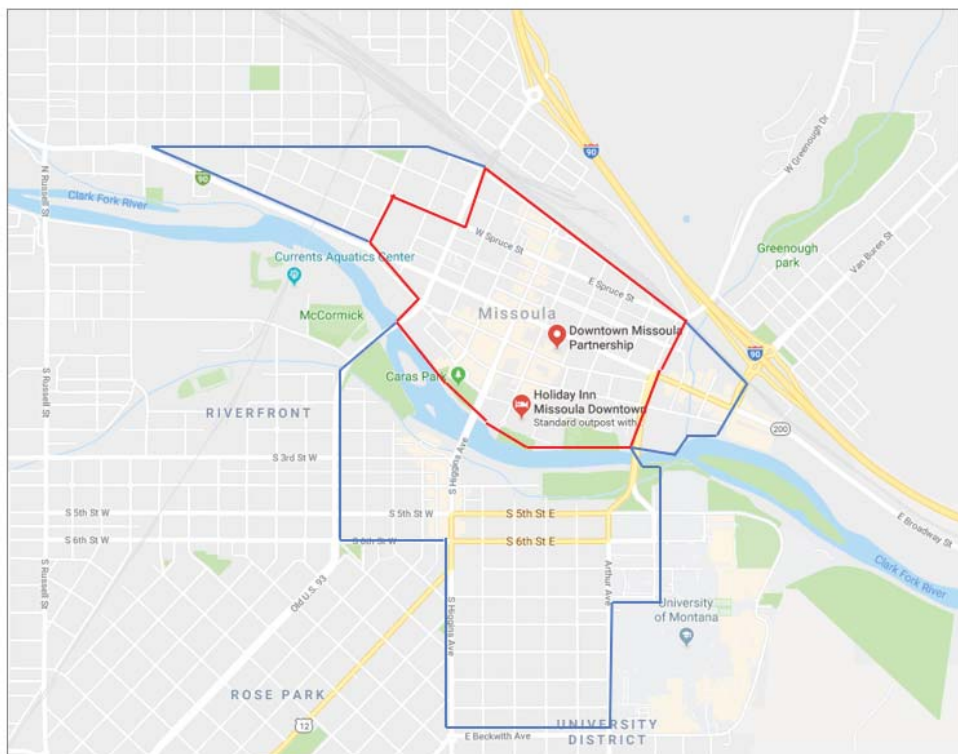
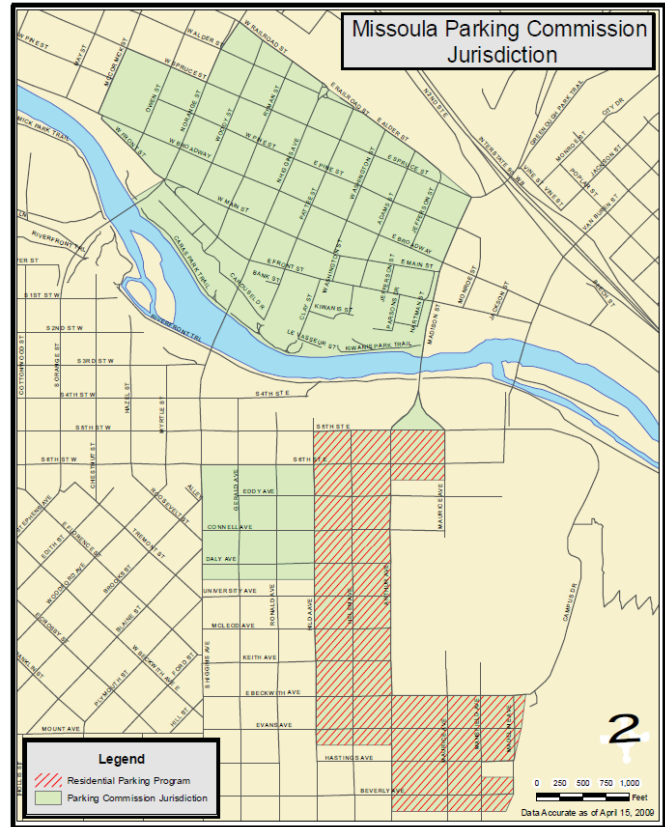
Overview

The jurisdiction of the MPC has been static for many years. The current boundaries of the Missoula Parking Commission are illustrated in the graphic below from the MPC website.

Note: This map is a little confusing as it appears to imply that the “Hip Strip” is currently within the MPC jurisdictional boundaries, however, it is not. There is a small portion of S. Higgins that is included but it only encompasses the 2-hour parking across the street and in front of Hellgate High School. That portion is really only from Daly to S. 6th – it stops before the “true” Hip Strip begins.

It is recommended in the short to medium term, that the MPC’s jurisdictional boundaries be increased to include the Hip Strip as well as the Riverfront area around Wyoming St. and the area North of W. Broadway St. and South of Toole Ave. and West of Orange as illustrated in the map below. In the longer-term, strategies to provide parking support City-wide should be evaluated.

See the following section for recommendations to create new parking management districts.



- Current MPC Jurisdictional Boundary
- Recommended MPC Jurisdictional Boundary

Strategy 8:

Performance (Demand) Based Pricing

Strategy Implementation Timeframe: ● ● ○

Medium-Term Strategy

Background

Since parking meters were first installed in downtown Missoula in 1948, rates have been adjusted within the downtown meter district only a few times. Meter rate adjustments should be based on the results of an occupancy and turnover analysis.

What Is Performance-Based Pricing?

Performance-based pricing refers to the process of modifying parking pricing based on an established set of metrics. Typical best practice modifies parking pricing to achieve a specified target occupancy level of no more than 85%. Blocks that peak at 85% occupancy have one to two parking stalls available per block face throughout the day, which allows visitors to easily find a parking space near their destination.

Those who are willing to park further from their destination save on parking costs by seeking off-street parking facilities or reduced-cost on-street parking in areas of lower demand.

Collecting Data to Support Performance-Based Pricing

Performance-based pricing relies on regular data collection efforts to inform rate adjustments.

Meter districts around the country have established best practice processes for collecting occupancy and

turnover data. To ensure consistency across districts, the following metrics should be collected within each meter district as inputs into the performance-based meter rate adjustment process:

- Hourly occupancy by block, collected over at least two weekdays during hours when meters are enforced
- Average duration of stay by block and posted time limit, collected over at least two weekdays during hours when meters are enforced
- Violation rates calculated based on observed duration of stay data and posted time limits
- Annual on-street meter transactions as a check to review the total number and redistribution of transactions between public parking areas within the meter district
- Citation rates as a check to confirm levels of enforcement
- This data should be collected once every 12 months using consistent processes to allow for year-to-year comparisons.



The Purpose of Performance-Based Pricing

Ensuring convenient, available parking through:



Increased turnover



Redistribution of parking



Tiered parking options

Sampling

Some meter districts are too large to allow for cost effective data collection across all parking spaces within the district. Large meter districts (such as the current Missoula Downtown district) should “sample” using a statistically-valid representation of the larger district. A sampling was conducted as part of this study related to “parking turnover” rates. See the Parking Supply/Demand section of this report as an example.

Adjusting Meter Rates

The intended effect of rate adjustments is primarily to redistribute parking between areas of higher and lower demands within a district based on data.

Economic vitality is supported by providing visitors with tiered parking pricing options within each meter district. By collecting annual paid parking data for both the on-street system and the off-street garages, a check may be performed to identify if rate changes resulted in a shift in parking demand or an overall reduction in parking demand within the district.

It is recommended that parking meters in Missoula allow users to pay in 15-minute increments, which requires all hourly rates to be evenly divisible by four. For consistency, Missoula should set all hourly rates in multiples of \$0.20 per hour (see table).

To maintain this, rates should be adjusted up or down by \$0.20, \$0.40, or \$0.60 per hour as needed. A maximum annual adjustment of +/- \$0.60 is recommended to allow for a performance-based approach while ensuring that prices will not rapidly increase or decrease each year without additional Board review and approval.

Current hourly on-street meter rates in Missoula are depicted in the table to the right. To allow for a performance-based pricing approach, an hourly rate range between \$1.00 and \$3.00 per hour is recommended for approval by the MPC Board. It is further recommended that the MPC Director have the authority to make meter rate adjustments that remain within this range. The MPC Director’s decision would be informed by the described data metrics.

HOURLY RATE	PER 15 MINUTES
\$1.00	\$0.25
\$1.20	\$0.30
\$1.40	\$0.35
\$1.60	\$0.40
\$1.80	\$0.45
\$2.00	\$0.50

MISSOULA’S NEW RATE SCHEDULE (9 a.m. - 5 p.m.)		
SHORT-TERM PARKING		
	Rate Per Hour	Total Cost Per Stay
On-street meters		
1st hour	1.00	1.00
2nd hour	1.00	2.00
3rd hour	1.50	3.50
4th hour	2.00	5.50
5th hour	2.50	8.00
6th hour	3.00	11.00
7th hour	3.50	14.50
8th hour	4.00	18.50
9th hour	0.00	18.50
10th hour	0.00	18.50
LONG-TERM PARKING (for employees & residents)		
	Rate Per Hour	Total Cost Per Stay
On-street meters		
1st 5 hours	1.00	1.00
2nd 5 hours	1.00	2.00

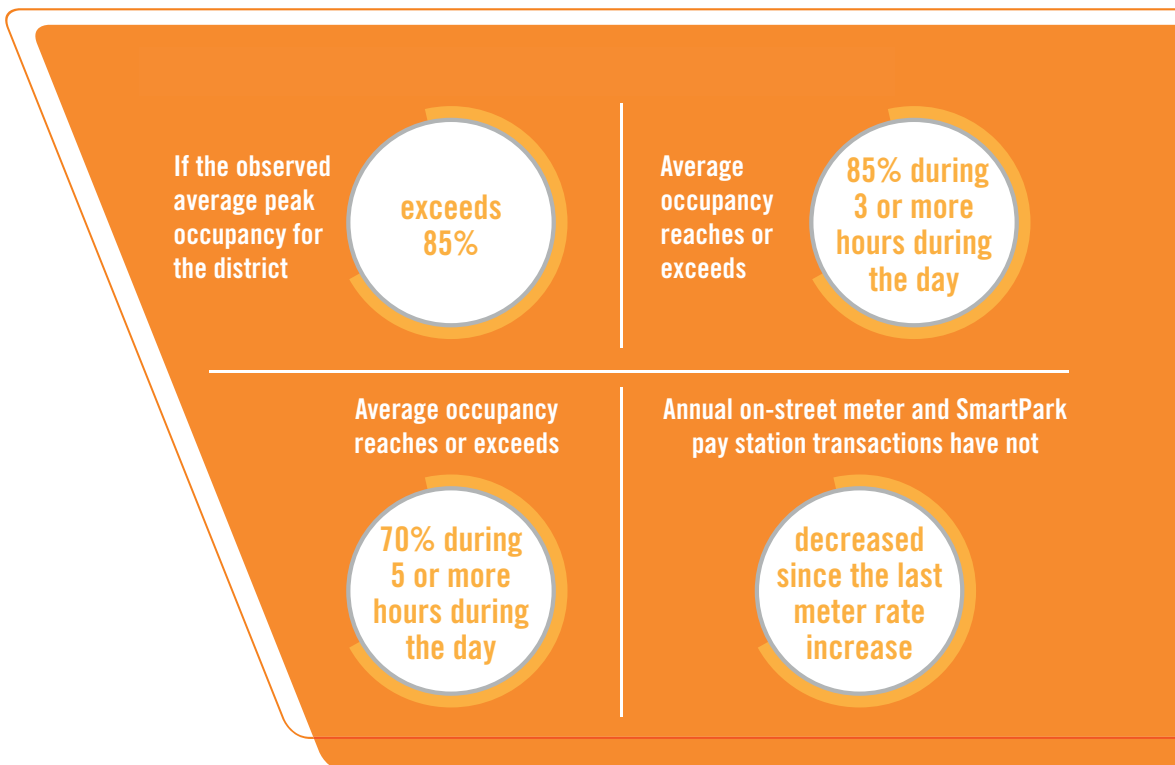
Measuring the relationship between pricing and parking demand is referred to as “price elasticity of demand”. A rate increase would be expected to reduce peak observed occupancies. Based on the results from several studies, Parking Management for Smart Growth (Willson, 2015) reports that parking elasticity values typically range from -0.1 to -0.4, with -0.30 being the most common value. That is, a 10% price increase would be expected to reduce demands by 3% for an elasticity factor of -0.30. This -0.30 elasticity factor serves as a useful starting point to help inform the magnitude of adjustment, which is capped at +/- \$0.60 per year.

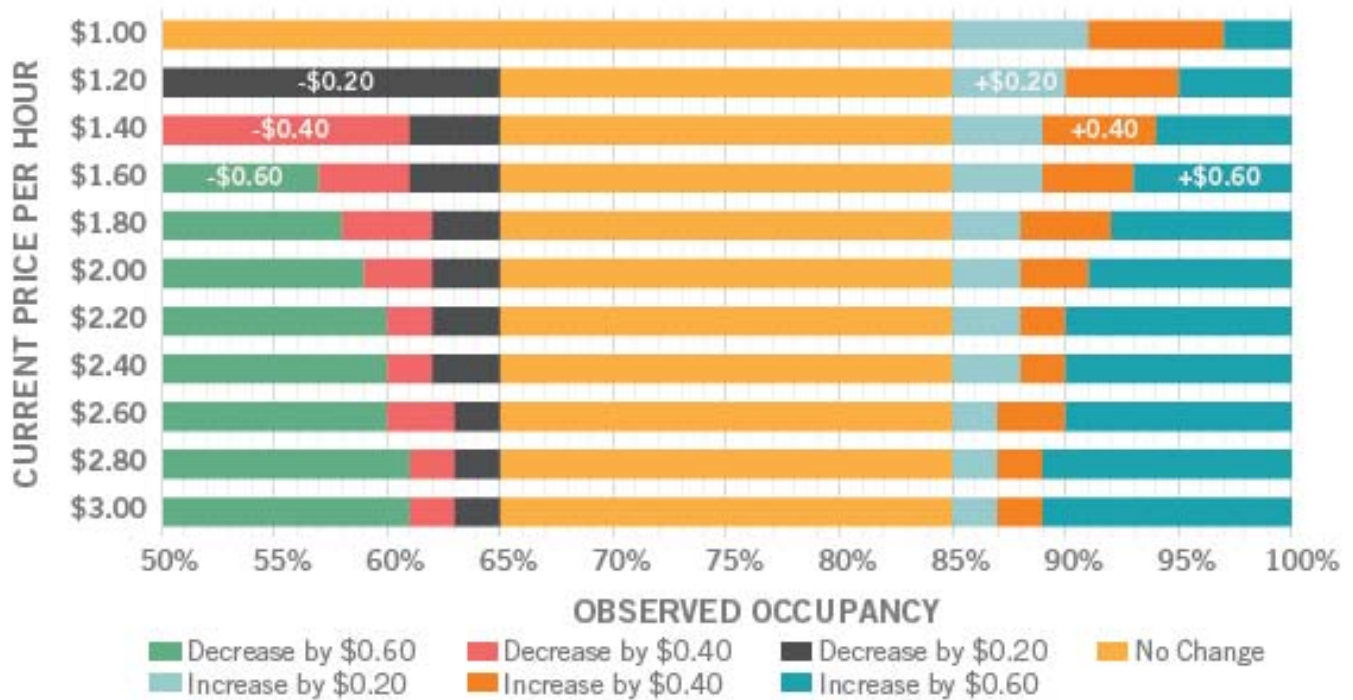
Using these assumptions, including \$0.20 incremental changes, a maximum rate change of \$0.60 per hour, a minimum hourly rate of \$1.00, a maximum hourly rate of \$3.00, an assumed elasticity factor of -0.30 to inform the magnitude of adjustment, and a target peak occupancy range of 65% to 85%, the following data-driven rate adjustment process will

be used to inform rate adjustment recommendations for the MPC Director’s review:

- Meter rates should be reduced according to Figure 20 (on the following page):
 - If the observed peak occupancy for a district is less than 65%
- Meter rates should be increased according to Figure 20:
 - If the observed average peak occupancy for the district exceeds 85%, AND
 - Average occupancy reaches or exceeds 85% during 3 or more hours during the day, AND
 - Average occupancy reaches or exceeds 70% during 5 or more hours during the day, AND
 - Annual on-street meter and garage pay station transactions have not decreased since the last meter rate increase.

Figure 20. Meter Rates





STARTING RATE	DECREASE BY \$0.60	DECREASE BY \$0.40	DECREASE BY \$0.20	NO CHANGE	INCREASE BY \$0.20	INCREASE BY \$0.40	INCREASE BY \$0.60
\$1.00	—	—	—	< 85%	85% - 91%	91% - 97%	≥ 97%
\$1.20	—	—	< 65%	65% - 85%	85% - 90%	90% - 95%	≥ 95%
\$1.40	—	< 61%	61% - 65%	65% - 85%	85% - 89%	90% - 94%	≥ 94%
\$1.60	< 57%	57% - 61%	61% - 65%	65% - 85%	85% - 89%	89% - 93%	≥ 93%
\$1.80	< 58%	58% - 62%	62% - 65%	65% - 85%	85% - 88%	88% - 92%	≥ 92%
\$2.00	< 59%	59% - 62%	62% - 65%	65% - 85%	85% - 88%	88% - 91%	≥ 91%
\$2.20	< 60%	60% - 62%	62% - 65%	65% - 85%	85% - 88%	88% - 90%	≥ 90%
\$2.40	< 60%	60% - 62%	62% - 65%	65% - 85%	85% - 88%	88% - 90%	≥ 90%
\$2.60	< 60%	60% - 63%	63% - 65%	65% - 85%	85% - 87%	87% - 90%	≥ 90%
\$2.80	< 61%	61% - 63%	63% - 65%	65% - 85%	85% - 87%	87% - 89%	≥ 89%
\$3.00	< 61%	61% - 63%	63% - 65%	65% - 85%	85% - 87%	87% - 89%	≥ 89%

In some cases, known land use changes, low citation rates, or any number of other local factors could lead to a delayed or modified rate adjustment compared to the outcome of the data-driven process outlined above. These recommendations should be documented and submitted to the MPC Director within 90 days of the completed data collection report for consideration.

Strategy 9:

Future Parking Garage and Mobility Initiatives Financing Strategies

Strategy Implementation Timeframe: ● ● ○

Medium-Term Strategy

Overview

The Missoula Parking Commission (MPC) is facing a growing demand for parking, especially leased monthly parking for downtown employees.

This creates a need/opportunity for the MPC and the City of Missoula to reassess how the parking development will be accomplished in the next decade and beyond. Defining a parking infrastructure funding mechanism that works for Missoula could be a major City and Parking Commission priority and this section is a broad menu of options for consideration.

It should be noted that while the MPC has played a leading role in providing parking infrastructure in the past, the agency likely cannot and should not be the sole source of parking infrastructure going forward.

It may be helpful to have the MPC's bonding capacity reviewed by bond consultants.

Scenario #1 – Continue Parking Investment as an Economic Development Strategy Using Net Parking System Revenues

This approach would prioritize a continuation of the successful strategy that MPC has employed for the past decade plus, but at a reduced level. One example of how this strategy might be enacted is to determine how much net parking operational revenues could be set aside annually after funding parking management and operations, existing facility maintenance and maintenance reserves. If, as an example, \$2,000,000.00 per year could be set aside, a new 400 space parking garage with an estimated cost of \$10,000,000 could be funded every five years or a portion of a public/private partnership could help incentivize multiple smaller investments. This strategy does not seem feasible for the MPC currently given its current levels of revenue and debt.

Scenario #2 – Parking Asset Divestiture to Create Capital for New Parking Asset Development

Having successfully leveraged TIF funding to build parking garages which have now had their debt retired, another option to continue to generate funds for new capital investments could be to sell selected parking assets to interested property owners or investment firms then reinvest the proceeds of those sales to continue strategic parking garage development that has the potential to stimulate new community and economic development activity.

Scenario #3 – Leverage Parking System Revenues to Fund Interim Transportation Strategies and the Development/Promotion of Transportation Demand Management (TDM) Programs

As the Missoula market matures and traffic and congestion issues grow, investment in transportation infrastructure will become more critical. A range of long-term mobility strategies are currently being explored. In the short to midterm timeframe, before major transit infrastructure investments are realized, parking demand is expected to increase (due to increased development activity). This development activity often also has the result of eliminating surface parking. The loss of surface parking can translate to loss of low-cost parking options for service workers. Thus, a need to develop new surface parking options that are more remote from the downtown core will likely be needed. However, because of the remote nature of these lower cost parking options, an efficient and low-cost transportation option such as a shuttle program or downtown circulator will be required. Using parking revenues as one possible funding source for remote parking/shuttle services as well as an enhanced TDM program could be a very practical and strategic use of parking system revenues.

Missoula already has an effective Transportation Demand Management program in Missoula in Motion. MPC is currently an active partner and contributes to the MIM budget annually. The MPC could elevate their support to the MIM program as a strategic approach to reduce parking demand under the theory that it is cheaper and more environmentally sustainable to reduce demand than build expensive structured parking.

MPC can also play an important role through the setting of parking rates, offering preferential parking for carpool, vanpool and alt fuel vehicles, and other more traditional TDM strategies

Scenario #4 – Temporary Parking Lots

Work with the City to authorize a special MPC temporary parking lot exemption from normal parking lot development standards. MPC will still provide the basic improvements related to patron safety (lighting, etc.) however improvements such as lot screening, paving, drainage, landscaping, etc. will be waived for temporary parking lot uses that are not expected to exceed 2 years in duration. Temporary lots are generally not accepted in Missoula and cannot be gravel or unpaved surface. However, there are occasions where temporary parking can service a purpose. If there is a need for temporary parking, a product called “Roll Park” (<http://rollpark.us/>) may be worth considering. This product is a fabric overlay for a cleared lot. It can be re-used on multiple sites, can provide temporary use for 1-3 years.

Scenario #5 – Create a District Management Model

This option was briefly touched on under the “Create a Parking Benefit District” recommendation earlier, however parking benefit districts are typically restricted to on-street meter revenues. This alternative would involve the creation of some form of Special Improvement District. (SIDs/LIDs)

- Community Development Corporation (CDC)
 - CDC’s are not-for-profit entities that allow multiple investors to participate in both the physical and economic development of an area. Because they are stand-alone non-profits created for a community-serving purpose that acquire resources from a broad range of sources, they are highly flexible in how they are used. Their varied benefits include:

1) Their 501c3 status. Having 501c3 status means that revenue can be brought in from a wide variety of sources. The public can easily contribute funds to a 501c3, and grant dollars are easier to access.

Additionally, private sector donations (either from investors or community entities like banks) are easier to acquire as the contribution brings with it a tax deduction for the contributor.

2) They are community-based. They bring together the public and private sectors to achieve common-goals that each could not achieve acting alone.

3) They leverage a diversity of funds. General funds, grants, fees, private investment, banks, donations, etc. can all be leveraged for the same purpose.

- They are extremely flexible. They are non-governmental and therefore can fund diverse projects. There are very few limitations on what they can do. A CDC is a great tool for collecting revenues from a variety of sources. A CDC can also be used as a way to bring together funding dedicated to a specific area and collectively manage them for a unified purpose. The CDC is a potential tool to help link a PBID, IFD and Parking District – and leverage these dollars for downtown Missoula.

The CDC is another strong funding collection tool that can be helpful in tackling tough-to-address development challenges, can spur economic development, and can unite the public and private sectors.

- Local Improvement Districts (LIDs).
 - In this mechanism, you would determine what properties would benefit by the construction of a garage and assess the cost to those who are benefitted. The Agency could subsidize the project to some level 30-50-60%, with the balance being paid by the benefitted properties. This might close the gap between actual cost and cost supported by fees. This approach could align the limited money with more garages as the property owners get money in the game. You might be able to condo the facility with each floor being a condo unit, assessing certain private floors to the private property owners along with a share of the common area and land costs.
 - Pooled resources will go a lot further than Agency handouts. This option is legal in some western states (verify legality in Montana) and might be the most straightforward for the number and dispersed nature of the facilities that MPC and the City are now looking at.
- Potentially all private parking garages and lots could be taxed with the money going toward public garage construction or TDM initiatives. To incentivize participation in TDM initiatives large businesses that actively participate in Transportation Demand Management programs could potentially earn credits (rebates) on their taxes as a tool to encourage participation.

Scenario #8 – Create a Parking Urban Renewal District (URD)

- The creation of a new URD would need to be of sufficient size to provide space for private (i.e. taxable) development to produce revenue allocation proceeds (TIF) to pay off construction costs. How much goes to each type of public investment (parking, streets, utilities etc.) would be a policy discussion by the MPC Board and City Council.
- Sufficient amenities would be required to attract the private investment into the new district so that TIF would be generated to pay for parking structures. While the concept has merit, especially as a potential Hip Strip strategy, the Missoula Redevelopment Agency has attempted this in the past and it has not been able to meet the “finding of blight” required by State legislation.

Scenario #6 – Evaluate parking asset privatization/monetization as a potential downtown development or parking/mobility system funding strategy

- While not a top recommendation, the option to leverage parking facilities through a “monetization” strategy involving a long-term leasing of MPC’s facilities in exchange for a fairly large upfront payment, is an option being used on a limited basis across the US. The most famous (or infamous) example was the monetization of the Chicago parking system. This deal was largely criticized for a number of reasons. A more successful use of this approach was implemented at the Ohio State University campus in 2012.

Scenario #7 - Institute a Parking Tax

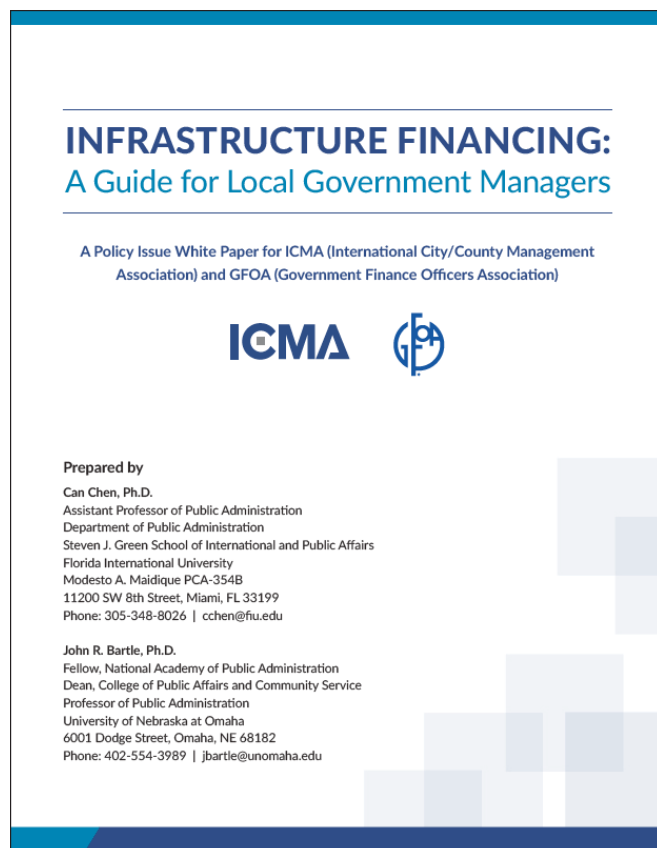
- Many communities across the country have parking taxes. In some communities, the tax is applied on a per stall basis and in others it is essentially a sales tax added to the value of any parking transaction. Parking taxes are typically used to support larger transportation infrastructure investments. An excellent summary of parking taxes with examples from various communities can be found at:
http://www.vtpi.org/parking_tax.pdf

Local Government Infrastructure Financing

(Supplemental section)

As part of our research on this topic, we came across an excellent “policy issue white paper” entitled: Infrastructure Financing: A Guide for Local Government Managers published by the International City/County Management Association (ICMA) and the Government Finance Officers Association (GFOA). This reference document is included in this report as Appendix D.

This section provides a summary of the Infrastructure Financing report and includes excerpts from the whitepaper on the topics of: Alternative Mechanisms of Local Infrastructure Financing, New Financing Mechanisms, New Funding Sources and Five New Financial Arrangements.



Strategy 10:

Forming New Parking Management Districts

Strategy Implementation Timeframe: ● ● ○

Medium-Term Strategy

Overview

Parking management strategies implemented in commercial corridors around Missoula could vary widely depending on the specific areas, land uses and levels of development. While expanding the jurisdictional boundaries of the MPC is recommended to be done as part of this plan, the process outlined below is recommended as it relates to creating new parking management districts in the expanded jurisdictional areas.

The expansion of the MPC's jurisdiction into the recommended areas discussed earlier does not necessarily mean that the MPC will move in and immediately install meters. Rather, the change in jurisdiction simply gives the MPC the ability to assist the new areas with whatever parking management strategies the new areas may need upon request. In general, the Parking Commission would prefer to be "invited in" and work with the new area to define issues and potential parking management options.

Outside of the MPC jurisdiction area, there are currently no established parking management districts (with the exception of the Residential Parking Permit Program noted on the map above) that coordinate with the MPC to make requests for new or revised parking management strategies in commercial corridors such as time limits, enforcement, or paid parking. As the need for parking management continues to grow, it is envisioned that the MPC should prepare to be more involved in evolving commercial areas outside of the current MPC jurisdiction. The steps outlined in this document provide a process for establishing new Parking Management Districts (PMDs) outside of current MPC boundaries.

While each new PMD may have varying degrees of parking management strategies already in place, this process will define how new strategies could be implemented moving forward.

Establishing a Process for Creating New Parking Management Districts

Step 1: Initiate a Request for a New Parking Management District (PMD)

Formalizing a PMD is a necessary first step in order to identify potentially impacted stakeholders and ensure that requests to the MPC for additional active parking management have been made in consultation with employees, business owners, and residents.

It is recommended that business owners and other parties interested in pursuing additional active parking management in their districts work with the Director of the MPC to request the formation of a PMD.

Step 2: Establish Preliminary District Boundaries

The boundaries of the PMD may follow that of an existing area Association, but this is not a requirement. Any active parking management strategies, such as implementation of time limits, loading zones or on-street paid parking, will only apply in areas zoned for commercial or mixed-use. Parking management in residential areas will follow the processes defined for Residential Permit Parking zones (RPPs).

Step 3: Establish Workgroup or Parking Committee

Formation of a decision-making group of district representatives is a recommended step to ensure requests to the MPC for new parking management strategies are supported by district stakeholders. The workgroup or Parking Committee should include at least five representatives, consisting of business owners/operators and residents of a district.

Upon initial formation, the workgroup or Parking Committee's charge will be to recommend new parking management strategies within the PMD. Should the PMD implement pricing strategies such as paid on-street parking, the Parking Committee will make recommendations on the use of net meter revenue.

Step 4: Document Existing Conditions and Active Parking Management Strategies

A detailed inventory of on-street parking supply as well as current parking management strategies is required in order to assess areas that may need revised management strategies. The Parking Committee will work with the MPC to document both the number of parking stalls within the district as well as the utilization of those resources, classified

by type of parking space. Types of parking spaces may consist of:

- Short-term
- Long-term
- Specialty use (loading zones, disabled spaces, car-share spaces, etc.)

Step 5: Collect Data

Implementation of revised parking management strategies will follow a performance-based process, informed by observed demand and turnover. The Parking Committee will work with the MPC to identify the boundaries for an occupancy and turnover study.

Step 6: Recommend Parking Management Strategies

Based on the results of the data collection effort and identified needs within the Parking Management District (PMD), the Parking Committee will work with the MPC to develop a set of parking management recommendations.

Parking Management Districts are primarily intended to manage parking within mixed-use and commercially zoned areas of the city. However, active parking management in commercial corridors often impacts parking behavior in surrounding neighborhoods. As such, any recommended modifications to parking management within commercial corridors should be developed in consultation with adjacent neighborhood groups. Surrounding residential areas may elect to pursue implementation of a Residential Parking Permit zone (RPP) in response to proposed management strategies within the adjacent commercial corridor.

Step 7: Implementation

Once approved, the MPC will lead implementation of the recommended parking management strategies, including measures such as sign installation or replacement, enforcement, or parking meter installation.

Step 8: Monitoring

Regular monitoring of system performance helps to ensure that the implemented strategies have the intended effect. MPC funded data collection efforts (Starting with Step 4) will not exceed once every two years for each PMD, with the exception of a six-month follow-up study following implementation of a new parking management strategy within the PMD.

Should a PMD implement paid on-street parking, data will need to be collected at least once per year, with data collection costs borne by the meter district using net meter revenue funds.

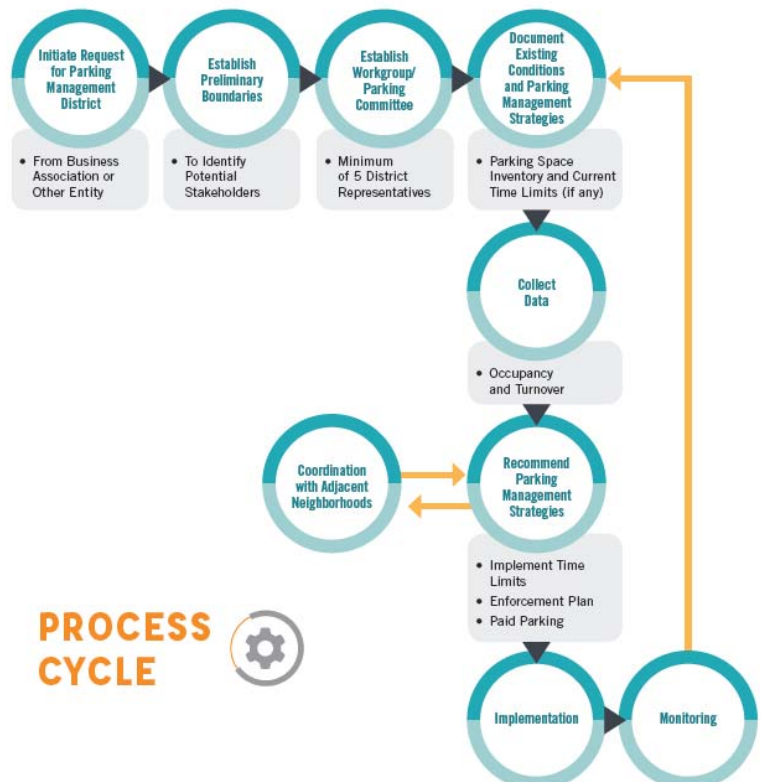
Coordination with Surrounding Areas

Because active parking management strategies will only be applied in mixed-use or commercially-zoned areas, the boundaries of each new Parking Management District (PMD) will focus on commercial areas. However, forming an active partnership with surrounding neighborhoods is recommended to include input from key stakeholders.

This partnership between a PMD and surrounding neighborhoods will only become more important should each area implement pricing strategies. Coordinating these revenue allocation programs enables strategic investment to reduce parking demand in the residential and commercial areas.

A flowchart outlining the recommended process cycle is provided below.

One of the primary objectives of this parking management plan update is to provide data driven metrics as “triggers” for certain parking management practices, such as the implementation of paid on-street parking in areas that do not currently have these practices.



Strategy 11:

Parking Time Limits and Enforcement Hours

Strategy Implementation Timeframe: ● ● ○

Medium-Term Strategy

Background

The MPC uses time limits and pricing strategies to manage the public parking system, with the primary goal of supporting economic vitality. A well-managed parking system uses a variety of strategies to encourage frequent turnover of the most desirable parking spaces, thus ensuring that visitors to an area will be able to quickly and easily find convenient parking without the need to spend time circling the area searching for an open space.

When visitors know they will be able to find parking, either at a premium directly adjacent to their destination or at a lower rate a reasonably short walk away, businesses are likely to benefit from this user-focused management approach.

Maintaining one to two open parking spaces per block requires pricing and time limit strategies that reflect actual demands to provide users with a variety of parking options.

Extending Enforcement Hours

Currently, parking enforcement activities occur Monday - Friday, 8:00am - 5:00pm, excluding State of Montana Legal Holidays. It is recommended that parking enforcement hours be shifted, which will require the addition of new MPC staff.

1. Extend Weekday Hours: Parking enforcement hours should first be shifted to 9:00 AM – 7:00 PM Monday – Friday.
2. Add Saturday Hours: Then consider adding Saturday parking enforcement hours from 9:00 AM – 7:00 PM.

Setting On-Street Parking Time Limits

When updating or implementing time limits for the first time, it is recommended that 2-hour zones serve as the default. Additional data and land use information are needed to implement 15/30-minute or 4-hour zones. We recommend that all other time limits will be phased out over time to simplify the on-street parking system and provide a clear, consistent message to customers and visitors.

At least once every two years, the inventory of 15/30-minute spaces and 4-hour spaces will be updated to determine if conditions supporting their use have changed.

Clear, Consistent Messaging

Simplifying time limits to 15/30-minutes, 2-hours, and 4-hours will help ensure that Missoula's on-street parking system is easy to understand and navigate, allowing visitors to quickly find parking that meets their needs.

High-Turnover 15/30-Minute Spaces

Some businesses rely on high customer turnover and 2-hour parking may not provide sufficient turnover to meet their customer's needs. For these businesses, such as coffee shops, dry cleaners, day care centers, banks, post offices, or other businesses where a high percentage of customers stay for 15 minutes or less, a shorter base time may be necessary. Note: It is recognized that these shorter time limits will not be fully enforceable given MPC staffing levels. Often times, the merchants who observe vehicles overstaying the time limit will communicate this to the MPC.

High turnover stalls (15 or 30-minutes) will be located adjacent to intersections in order to manage visitor expectations, minimize the number of different types of stalls on a block, and provide easy access to surrounding businesses.

Therefore, no more than four high turnover stalls will be installed per block (two per block face).

High turnover spaces will be considered when the following criteria are met:



On-street parking on the block is managed with either time limits or meters; no high turnover stalls will be implemented in areas where on-street parking is unrestricted



The requesting business is recognized as a qualified high turnover business type or is able to demonstrate an average stay duration of 15 minutes or less



The requesting business does not have private off-street parking available for customers



On-street parking occupancy on the adjacent block exceeds 85% at least two hours during the most recent round of data collection¹

When a high-turnover space has already been installed on the corner closest to the requesting business, the MPC will review each application on a case-by-case basis to assess the need for an additional high turnover stall on the block, taking into account proximity of next closest high-turnover space location as well as available occupancy, turnover, and citation data.

On the following page is a recommended “High Turnover Parking Space Request Worksheet” that may be adopted and/or amended by the MPC if this recommendation is implemented.

HIGH-TURNOVER PARKING SPACE REQUEST WORKSHEET

To Be Completed by Requesting Business:

- Name and address of requesting business:**

- Do you provide off-street parking for customers in an adjacent parking lot (circle one):** _____ Yes / No
(Businesses that provide private off-street parking are not eligible to request 15/30-minute parking stalls)
- Type of high-turnover business:** _____
(Examples of high-turnover businesses include coffee shops, dry cleaners, day cares, banks, and post offices. If your business is not one of these types of businesses, the MPC may request documentation to demonstrate the average visitor stays for 15-minutes or less).
- Time-limit on the block on which your business is located:** _____
(Examples: 2-Hours, 4-Hours. Note that the public on-street parking in your area must have time limits in place to be eligible—15 or 30-minute parking will not be installed in areas with free, unlimited on-street parking)
- Desired location and type (circle one and indicate location):** _____ 15-minutes / 30-minutes
Identify the general location of your business (with an X) and circle the desired location of the 15 or 30-minute parking stall.

The diagram illustrates four different street corner configurations. Each corner is represented by two perpendicular lines. Orange rectangles represent existing high-turnover stalls. A circle represents the requested parking stall location. The configurations are as follows:

- Top-left corner:** Existing stalls on the top and left sides. Requested stall at the top-right corner.
- Top-right corner:** Existing stalls on the top and right sides. Requested stall at the top-left corner.
- Bottom-left corner:** Existing stalls on the bottom and left sides. Requested stall at the bottom-right corner.
- Bottom-right corner:** Existing stalls on the bottom and right sides. Requested stall at the bottom-left corner.

- Location of existing high-turnover stalls within 1-block of requesting business, and date of last review.**
- Occupancy during the two-hour peak period on the adjacent block (must exceed 85%).**

For some business types and institutions where many visitors stay for two hours or longer, 2-hour time limits may be too restrictive to provide a convenient parking option. When there are no off-street public parking options within a reasonably short walk of the area, 4-hour time zones may be used to provide additional parking options.

Four-hour zones may be requested by businesses provided the following criteria are met:

On the following page is a recommended “Four-Hour Parking Zone Request Worksheet” that may be adopted and/or amended by the MPC if this recommendation is implemented.



The proposed four-hour zone includes **at least 40 on-street parking stalls on contiguous blocks** for conversion from two-hour parking to four-hour parking



There are multiple identified destinations within the proposed 4-hour zone where the **average visitor stay duration is between 2 and 4 hours**



There are **no public off-street parking facilities near the proposed 4-hour zone**, or the average occupancy reaches or exceeds 85% during 3 or more hours during the day in all nearby off-street public parking areas of the proposed 4-hour zone



The **average parking duration** on each block proposed for conversion is **2 hours or longer** based on citation and occupancy data

Strategy 12:

Data-Driven Policies to Support Balanced Utilization

Strategy Implementation Timeframe: ● ● ○

Medium-Term Strategy

Overview

One of the central tenets of the new approach to parking and mobility management in Missoula 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 parking system

The MPC has access to multiple data points today that can be used to drive policy and practice decisions. By further reviewing that data and adding new data streams, the MPC can be well on its 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 Systems (PARCS) equipment)
- License plate recognition (LPR) equipment
- Citation management systems
- Program revenue and budget sources
- Customer satisfaction surveys and outreach
- Transit and Mobility as a Service (MaaS) platforms

Data to be collected includes:

- Parking and curb space inventory. Provides the baseline for analysis and allows the MPC/ 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: Parking garage occupancy vs. commitments, metered parking occupancy, and 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 these trends 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. The MPC 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, 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.



Strategy 13:

Improve Parking and Mobility Wayfinding, Branding and Messaging

Strategy Implementation Timeframe: ● ● ○

Medium-Term Strategy

Overview

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 the Downtown and other neighborhoods. 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. There are several steps the MCP/City should take to remedy this issue.

Key Recommendations:

- Develop a comprehensive parking and mobility program branding effort
- Review the branded wayfinding strategy as it relates to parking and mobility resources
- Implement marketing and messaging campaigns

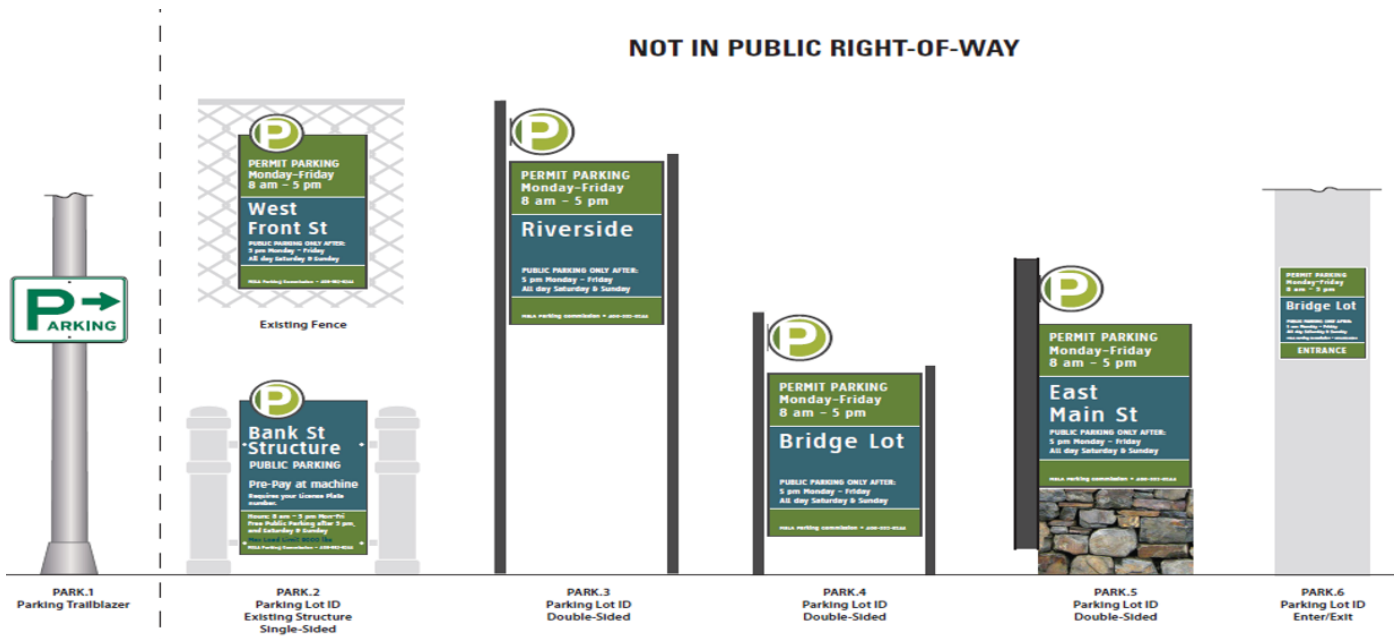
Recommendation Details

- The implementation of a more robust parking and mobility focused wayfinding system includes elements of branding, marketing, signage, and design. The following elements should be implemented by the City.
- Conduct Full Program Branding Efforts
 - The MPC should consider enhancing its program brand to be broader, supporting all elements of parking and mobility for the community. This program branding helps clearly delineate who is managing parking and its interconnectedness to other community mobility initiatives and helps support more efficient messaging and information distribution. The program branding strategy should be simple and memorable, clearly convey the intention of the system, and be developed to be transparent in operation and practice to help develop support and trust from the community.

- The City should partner with other community and downtown organizations to develop a consistent branding and communications strategy for the parking and downtown mobility 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 Missoula.
- Branded Wayfinding Strategy
 - The City recently designed and is in the process of installing a new wayfinding system for the downtown. The signs on the following page reflect the parking related wayfinding signs.
 - The addition of real-time parking space monitoring systems for garages and large surface lots would enhance the parking customer service by communicating space availability (both on a lot specific signs as well as on the internet and mobile apps). This option would also provide needed parking resource utilization data on an on-going basis.
 - There are several vendors offering new options for lot space counters and signage. We recommend that the MPC review the product line from a firm known as “Parking Logix” for an accurate and cost-effective system option.

- Implement Marketing and Messaging Campaigns
 - In combination with the branded signage elements, the MPC should consider various media (print, video, 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. The MPC

should review the Toronto Green P radio marketing platform that aimed to direct drivers during commute times to branded city parking facilities. As part of the program consolidation elements, the MPC/City should consider implementing a media specialist focused on the parking program to support messaging.



Strategy 14:

Improve Pedestrian and Bicycle Services/Facilities

Strategy Implementation Timeframe: ● ● ○

Medium-Term Strategy

Overview

Walking and bicycling are foundations of good urban places. Walkability and bikeability are the positive outcomes of good urban form, land use policy, and design. Downtown Missoula with its compact size, tight, gridded streets, and attractive urban form, is inherently walkable. Exploring the City on foot or by bike is an ideal way to experiencing Missoula's charm.

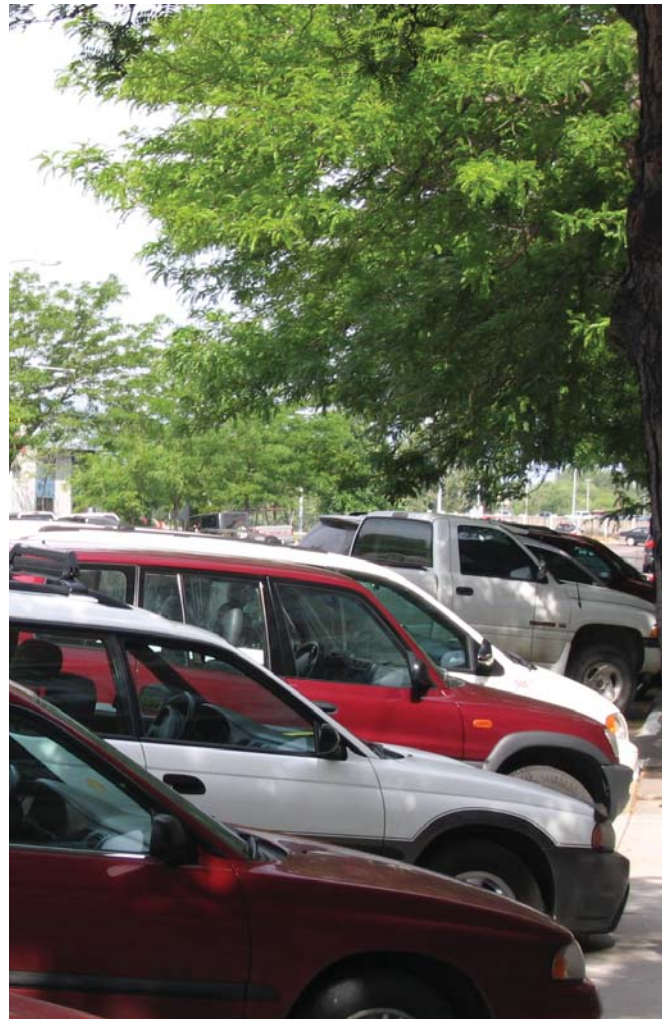
Specific efforts should be taken to further invite and encourage walking and bicycling. The goal of effective pedestrian and bicycle programs is to establish walking and biking as normal, convenient, and everyday travel modes as well as encouraging users of all ages and abilities to feel comfortable walking and biking in "low stress" facilities that are buffered from motor vehicle traffic.

Key Recommendations:

- Develop policies for funding bike/pedestrian programs with parking revenues, using program-wide or neighborhood specific revenues.
- Leverage parking funds to obtain grant funding for bicycle and pedestrian projects with an emphasis on projects that enhance safety and mobility.
- Adopt the Vision Zero target for zero fatalities involving road traffic and leverage parking revenues to fund portions of the program.
- Where possible, investigate opportunities for cycle tracks and off-street paths or bicycle lanes

that are buffered from moving vehicular traffic by curbs, landscaping, bollards, and/or parked vehicles.

- Retrofit selected existing on-street parking spaces as corrals for bike parking and for parklets to enhance the pedestrian experience and calm traffic.
- Integrate dockless, on-demand mobility devices where possible and designate appropriate curb space for parking these devices.
- Explore of the possibility of converting streets to car-free "Woonerf" style areas where pedestrians, bicycles, and dockless devices are prioritized. Note: A "woonerf" is a living street, as originally implemented in the Netherlands. Techniques include shared space, traffic calming, and low speed limits. A version of this



Strategy 15:

Implement a Comprehensive and Dynamic Curb Lane Management Program

Strategy Implementation Timeframe: ● ● ○

Medium-Term Strategy

Overview

With the rise of new mobility and parking trends, curb space is arguably the one of the most important and precious resource in our cities today. Demand for curb 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), on-demand mobility devices such as bikes and scooters, emergency services, pedestrian streetscape amenities and other users. All these users want free and unimpeded access to curb space, and like other public resources, cities must operate and manage the curb effectively to provide access for a variety of users, while optimizing overall public benefit.

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

- The program prioritizes and manages often competing curb 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 curb uses and different parts of the city (i.e., mobility/ Single-Occupancy Vehicle (SOV) reduction, parking occupancy goals, revenue, maximization of passenger curb access, etc.). One often used criteria is to prioritize uses that generate the greatest number of person-trips per day.
- The program includes a comprehensive inventory of curb uses across the downtown.
- The program clearly outlines when, where, and how to implement changes to curb use designations.
- The program includes a process for monitoring the use of the curb with technology (LPR, space sensors, Bluetooth, parking transactions, etc.) for enforcement, effective curb pricing and payment, curb demand management, and data analytics.

Key Recommendations:

- The City should develop and execute a comprehensive curb lane management program. That includes adopted changes to the City's standing and stopping ordinance to allow for curb lane flexibility and correlation with the rules that govern the curb along state-owned roads in the downtown and commercial districts.
- Comprehensive curb lane management should be coupled with the adoption of mobile payment, virtual permitting, curb space monitoring technology, and dynamic on-street parking pricing.

Recommendation Details

- The following sections describe some of the improvements the City should strive to develop in relation to its curb lane management program.
- Conduct a Curb Lane Inventory
 - One of the first critical steps to efficient curb management is gaining the knowledge of what is actually occurring at the curb. An excellent first step is cataloging the uses along the curb. It identifies block-by-block capacity of parking, loading, and restricted spaces. The City should move forward with developing this dataset and maintain its accuracy as changes are adopted along the curb.
 - To improve the information available about curb uses, the City should collect additional data about signage, alternative curb uses, markings, and other variations along the curb. One tool that is available for public use is Coord's Surveyor app, a mapping application developed by Sidewalk Labs (a subsidiary of Google). The smartphone-based application allows staff to walk the curb side and quickly input information about curb use, restriction, and signage. That information would then be uploaded

into cloud-based mapping for use by the City. Once uploaded, the information becomes an extremely valuable resource for communication, decision-making, and management of the curb.

- Develop Curb Lane Priorities
 - The City will need to establish prioritization for curb lanes based on surrounding context and user needs. There will very likely be a need for different priorities in different areas. For example, priorities on Higgins Avenue will differ greatly than priorities on Wyoming St. On Higgins Avenue, priority will likely skew towards passenger loading, commercial loading, and parking, while Wyoming Street will be heavily favored towards residents and park users for their parking and loading

needs. The Seattle DOT uses three distinct priority sets to define how to allocate curb space based on setting (Shown below). Those priorities are used to clearly communicate how decisions are made relative to curb space use.

- Identify Optimal Usage of Curb Space
 - Once the City has established priorities, it should use those priorities to guide decisions about how to implement changes to the curb space. Defining and allocating curb space should be data-driven and use many of the tools outlined in the Data-Driven Policies section. Using realistic data about the context of the curb space being modified, the City should consider the following process when identifying changes:

	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

<http://www.seattle.gov/transportation/projects-and-programs/programs/parking-program/parking-regulations/flex-zone/curb-use-priorities-in-seattle>

- Refer to the curb lane inventory to determine what is in place today
- Identify how the adjacent land uses need to use the curb and how they might react to changes
- Consider different uses at different time of the day
- Identify alternative curb lane configurations or proposed changes, using prioritization, stakeholder input, and data analytics to define preferred solutions
- Implement preferred treatments
- Monitor data and determine refinements to achieve goals

As the City follows this process, the next step will be defining approaches for changing curb space. There are typically three general approaches to changing curb space:

Clustering uses.

This approach seeks to relocate uses so that there is more clarity and efficiency. 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. Clustering uses aims to structure them 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.

Modifying uses.

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.

Defining flexible uses.

This approach combines the clustering and modifying approaches and creates distinct uses by time of day or during different demand periods. Taking this approach requires a more comprehensive approach to communication (and likely technology) but will 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, D.C. has piloted converting daytime parking to nighttime passenger loading to accommodate higher volumes of rideshare services at night.

As the City assesses 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.

- Monitor Curb Space Use

As curb changes are implemented in downtown Missoula, it will be imperative that the City monitors 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 of this report. The City should define the goals 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 is solely focused on activity along the curb (See: <https://www.wired.com/story/uber-city-equation-curb/>). The City should use activity (parking transactions, transit loading, passenger loading, etc.) as a metric. Of equal importance are concepts like business support (from parked cars), space turnover, balanced mode share, community access, and street performance.

- Utilize Curb Lane Management Technology

Current technologies are quickly being adapted to help support the rapid move to flexible and dynamic curb space management. Unfortunately, no one technology has entered the market that is ready to support completely dynamic curbs. Parking meters are able to be adapted to support changing rates or access configurations. But signage and communication are not readily available to communicate flexible space changes. The City should work with its vendors to understand what technology is available to support more efficient curb management. As mobile payment platforms are introduced, 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 define some considerations for the downtown area and surrounding commercial districts. The Institute of Transportation Engineers (ITE) recently released a technical resource, the Curbside Management Practitioners Guide. These considerations are based on a review of that document. Note: This document is included as Appendix F.

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, introducing 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 to the downtown Missoula, including:

- Monetized freight zones. Having paid commercial loading areas can help 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 low-cost 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, the City could manage the flow of delivery vehicles into and around the downtown.
- Urban consolidation centers for last mile delivery. Having these centers creates a centralized hub where packages are delivered before being consolidated into smaller government-run 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 times are much shorter 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 primary corridors and onto adjacent streets where demands might not be as high.



Strategy 16:

Enhance Residential Parking Program Practice

Strategy Implementation Timeframe: ● ● ○

Medium-Term Strategy

Overview

The City's residential parking permit program provides low-cost parking permits for residents to park on the street and restricts parking for non-permit holders typically to 1 to 2 hours of parking. The City currently has one residential parking area near the University of Montana. The permit program is important for many residents who have limited or no off-street parking and mitigates the use of residential area parking by students who choose not to purchase parking.

Given the limited space in some neighborhoods, lack of off-street parking for many of the historic homes, and spillover pressures from thriving schools and commercial areas, the management of residential permit spaces is an important parking management program component. The intent of improved policies in the residential areas is to support resident needs first, maximize support to adjacent commercial areas when possible, and manage this limited asset to the best of the City's ability.

Key Recommendations:

- Review and update the policies for the residential parking permit program (RPPP) to better clarify the program goals and priorities.
- Evaluate new areas that may need a RPPP in the near future.
- Prioritize on-street parking based on the primary street level-land use or zoning. On commercial streets, on-street parking should be prioritized for short-term visitor access. On residential streets, parking for residents should be prioritized, with short-term parking allowed when there is more parking availability.
- Evaluate other strategies to manage parking demand, such as further limits on the number of permits per household, total permits, and restrictions based on the availability of off-street parking.

Recommendation Details

- The implementation of advanced neighborhood parking permit policies will likely require some advanced technology and policy considerations. The following sections describe some examples.
- Virtual Permitting
 - Consider investing in the development of a mobile app for the RPP program to address guest and contractor parking issues. 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 MPC. 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 vehicle's 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 the homeowner to manage the permit.
 - The enforcement of virtual permits is conducted using License Plate Recognition (LPR) equipment (as described in the technology section).

Strategy 17:

New Parking Facility Development/Design Guidelines

Strategy Implementation Timeframe: ● ● ○

Medium-Term Strategy

Overview

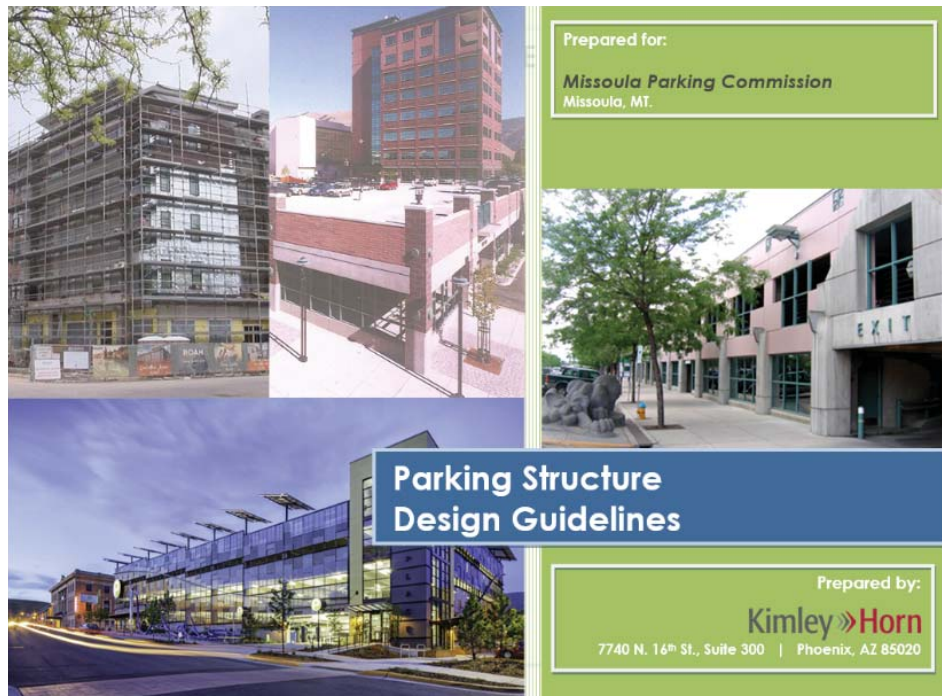
Within the near term (5 years), it is anticipated that Missoula will need to add to its supply of parking to keep up with growing parking demands generated by new downtown development. Based on urban design goals, the development and use of surface parking lots is being discouraged, thus making parking structures the preferred alternative (combined with a focus on parking demand reduction and enhanced support for TDM strategies, and transportation alternatives).

With this need to provide additional parking structures soon, we have provided our recently updated “Parking Garage Design Guidelines” document as Appendix G. It is recommended that these design guidelines be used to inform new parking facility development going forward.

This document has been developed for the Missoula Parking Commission as a guide for future parking structure design in Downtown Missoula. It contains information to help developers and designers incorporate parking structure components into proposed projects. The concepts presented will help produce functional, well-designed and patron friendly parking structures that will become valued infrastructure elements for the Downtown. The concepts are presented so that common design mistakes can be avoided by being addressed early in the design process. The document is based on internal Guidelines for Functional Parking Design and should be periodically updated to reflect state-of-the-art parking design practices and principles. It includes the following categories:

- Introduction
- Design Reviews
- Project Delivery
- Sustainable Design

- Adaptive Reuse
- Site Requirements
- Site Constraints
- Parking Geometrics
- Parking Layout Efficiency
- Pedestrian Requirements
- Accessible Parking Requirements
- Safety and Security
- Lighting
- Signage and Wayfinding
- Drainage
- Fire Protection
- Open or Enclosed Parking Structure
- Structural Systems
- Concept Design
- Circulation and Ramping
- Access Design
- Durability Design
- Maintenance
- Other Considerations



Planning for Autonomous/Connected Vehicles

Another significant topic that could potentially impact future parking demand as well as future parking garage design is the “pending industry disruption” being predicted based on future scenarios that involve the large-scale adoption of autonomous vehicles.

In general, we do not see changes related to autonomous vehicle adoption having a significant impact in Missoula in the next 20 years. However, given the uncertainty and interest in this topic, we felt this was an important issue to address.

Appendix H is a Kimley-Horn research paper entitled: “Assessing an Uncertain Transportation Future”.

This research paper is organized as follows:

- Executive Summary
- Parking Structure Development Costs Update
- Assessing an Uncertain Transportation Future
- The Emerging Transformation of Urban Mobility
- Autonomous Vehicle Implementation Predictions
- Shared Mobility and “Mobility as a Service”
- Parking and Mobility Management: Monitoring and Evaluation
- Designing for Flexibility and Adaptive Reuse
- Bibliography

Beyond the industry expert’s opinions related to the projected timing of autonomous vehicle impacts, the sections on “Shared Mobility” and “Designing for Flexibility and Adaptive Reuse” are two important sections that could be applicable to Missoula.



Assessing an Uncertain Transportation Future

Projecting the Impact of Autonomous Vehicles and Shared Mobility Trends on Future Parking Demand

Research Memo



Strategy 18:

Implement MaaS/Personal Transportation Options

Strategy Implementation Timeframe: ● ● ●

Long-Term Strategy

Overview

If deployed properly, Mobility as a Service (MaaS) options have the potential to integrate with the MPC's parking system and improve overall access and mobility in the downtown for residents and visitors, while reducing parking demand and traffic congestion from vehicles making short trips and/or searching for parking. The City should adopt several strategies that ensure MaaS options work in a beneficial and seamless way within existing City streets and alongside current transportation systems.

Key Recommendations:

- Designate curbspace for rideshare pick-up and drop-off
- Cluster Mobility as a Service options and connect them with transit
- Adopt policy and program frameworks that manage services and monetize access
- Embrace new shared mobility devices

Recommendation Details

- The key to implementing and unlocking MaaS options in the downtown and throughout the Missoula community is likely found in a combination of strategies throughout this document, including effective curbspace management, improving transit access and updating parking policies and ordinances.
- Designate Curbspace for TNC Rideshare Pick-Up and Drop-Off Zones
 - Curbspace is at a premium in the downtown, as it is in cities across the United States. A variety of uses compete for space along the curbspace, including on-street parking, loading zones, TNCs, dockless bikes, on-demand personal mobility devices (E-Skateboards, E-Scooters, etc.), and others. Flexible curbspace management is critical to maximizing the efficiency and functionality of the curbspace to serve adjacent land uses and prioritizing the right curbspace use at the right time of day.
 - Curbspace is at a premium in the downtown, as it is in cities across the United States. A variety of uses compete for space along the curbspace, including on-street parking, loading

zones, TNCs, dockless bikes, on-demand personal mobility devices (E-Skateboards, E-Scooters, etc.), and others. Flexible curbspace management is critical to maximizing the efficiency and functionality of the curbspace to serve adjacent land uses and prioritizing the right curbspace use at the right time of day.

- For example, a curbspace 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 curbspaces by giving TNC vehicles access to curbspace and reducing the need for these vehicles to stop in the line of traffic to pick up and drop off riders, helping to relieve congestion.
- The City should partner directly with Uber and Lyft to identify and designate flexible curbspace zones in areas adjacent to commercial entertainment land uses, i.e., curbspace that functions as on-street parking during the day and TNC pick-up/drop-off areas when demand spikes at night. The City of Fort Lauderdale partnered with Uber in 2017 to designate on-street parking spaces as nighttime and weekend pick-up and drop-off zones. Washington D.C., San Francisco, and other cities are implementing flex curbspace zones in partnership with TNCs as well. The City of Missoula will need to initiate discussions directly with Uber and Lyft by establishing a business account. The City will then work with an assigned business representative to set up the terms of the arrangement.
- Cluster MaaS Options and Connect with Transit
 - 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. Shared mobility options are particularly effective in filling the first-mile/

last-mile access gap for those traveling via transit—facilitating a non-single-occupant vehicle multimodal trip.

- Another option for consideration might be the creation of temporary surface lots in underdeveloped areas that may be considered slightly too far to walk for employees. However, supplementing this remote parking option with electric scooters or a bike share option could provide additional (and affordable) leased parking options for employees.
- The City should work with Missoula In Motion to consider creating “mobility hubs” by clustering TNC loading areas and dockless bike stations, on-demand personal mobility devices near or adjacent to transit stations and large consolidated parking structures and/or park-and-ride facilities. Additionally, the City should evaluate subsidizing TNC trips that originate or terminate at Mountain Line transit stations to incentivize multimodal transportation trips to the downtown that do not result in parking demand.
- 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 the downtown, is important. The City should adopt policies that set the terms of operation by shared mobility services like TNCs, dockless bikes, 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, allow the City to glean vital information on user mobility behavior, and align the City to provide services that positively enhance the overall access, circulation, and mobility for all users without causing externalities.
 - The City should initiate the following practices:
 - Where possible, initiate RFPs to provide shared mobility service. Doing so allows 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. Appendix E is a report from the City of Portland entitled: Portland 2018 E-Scooter Findings Report. This report documents Portland’s proactive approach to assessing Scooter companies and defining policies and equity issues important to the community.
- Adopt a policy that sets the terms and requirements for TNCs and other shared mobility providers to collect and share their anonymized user data with the City. This data will be a robust snapshot of user mobility behavior and should be integrated into the City’s data sets to inform transportation and parking management decisions.
- Implement a policy to collect a per-use fee from TNC ridesharing services. The City of Missoula and 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. Passport Parking, a company that the MPC is already working with is pioneering a new shared mobility platform approach.
- Embrace New Shared Mobility Devices
 - Urban trips of 1 to 3 miles are too short for most people to drive and park or take transit (unless the transit service is conveniently located) but are 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 (e.g., Uber, Lyft, Gotcha Ride), while other options offer personal mobility devices (e.g., 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 from the same platform provider.

- Dockless, on-demand mobility devices like scooters and bikes, which offer personal transportation, are filling this important need for mobility flexibility in the overall transportation ecosystem. New vendors and platforms have emerged 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 should experiment, adapt and evolve.
- 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.



Strategy 19:

Implementing Paid On-Street Parking in New Areas

Strategy Implementation Timeframe: ● ● ●

Long-Term Strategy

Overview

The following section presents a series of requirements that must be met in order to establish a new meter district within a Parking Management District (PMD). They are not intended to be sequential but rather a general framework that establishes minimum requirements. Areas that meet all these requirements do not necessarily need to implement paid on-street parking, but such districts would have this option as a management tool.

Requirement 1: Parking Management District (PMD)

Requests for revised parking management in commercial corridors must be initiated through the PMD for the area.

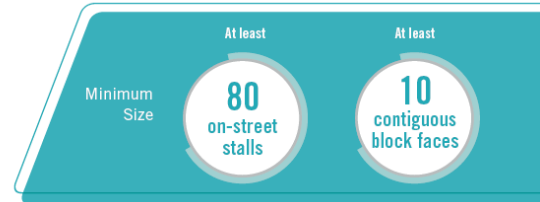
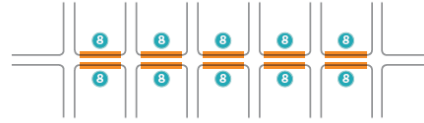
Requirement 2: Existing Parking Management

On-street paid parking can be an effective tool to address high parking demands and low turnover in mixed-use or commercially-zoned areas, but other management and enforcement strategies should be applied first. Specifically, before implementing paid parking within a PMD, the area must already have time limit restrictions in place with enforcement.

Requirement 3: Minimum Size

Assuming Requirements 1 and 2 have been met, a PMD may request an occupancy study within the areas of highest demand that should be considered for on-street paid parking. A new parking meter district will not be established unless the area includes at least 80 on-street stalls in a mixed-use or commercially-zone area, covering an area of at least 10 contiguous block faces. The occupancy study may include a larger area in order to ensure that data for the areas of highest demand are captured.

The MPC will conduct an occupancy study no more than once every two years.



Requirement 4: Minimum Parking Demands

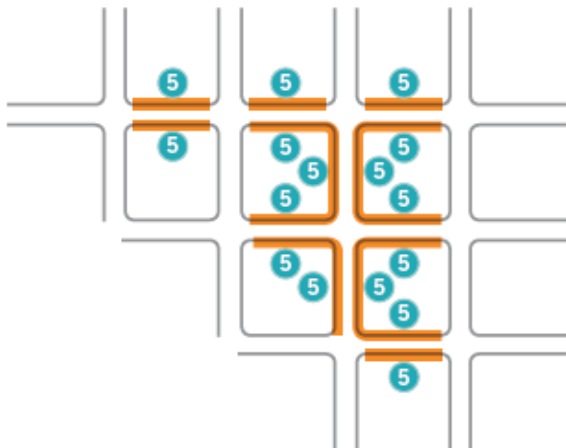
Effective on-street parking management measures ensure there are typically 1 to 2 open parking stalls per block.

According to best practice, this corresponds to an occupancy rate of no more than 85% during peak hours. To apply to a wide range of scenarios, a two-tiered approach has been established:

- Average occupancy reaches or exceeds 85% during 3 or more hours during the day, and
- Average occupancy reaches or exceeds 70% during 5 or more hours during the day

This two-tiered approach ensures that demands are relatively high (70% occupancy or more) for at least 5 hours, while also confirming that peak demands reach or exceed 85% during at least 3 hours prior to implementing paid parking. The area included within the calculation must be observed over at least two weekdays, measured in separate weeks.

For all future meter districts, hours of enforcement will be established by the parking committee for the meter district, based on data. As a starting point, we recommend setting initial hours of enforcement to 10 am to 7 pm, Monday through Saturday. Parking demands typically remain low before 10 am. Delaying enforcement in the morning aligns with Vision Zero's Impairment Action Item #2 to encourage impaired drivers to leave their cars overnight without concern of getting a parking ticket or being towed. Initial hours of enforcement may be reduced or extended based on data, with



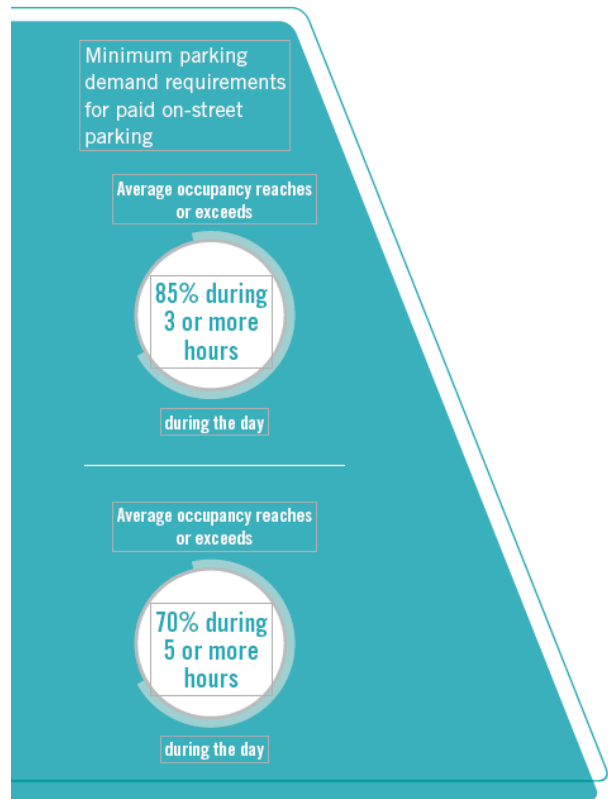
occupancy rates of 70% or higher needed to justify extended enforcement hours.

Requirement 5: Outreach to Surrounding Areas

Implementing paid on-street parking will, by design, shift parking demands within an area. Parking demands are likely to increase in surrounding areas with unregulated on-street parking. Prior to implementing on-street paid parking, notice must be given to all residents and businesses within 1,000 feet of proposed metered blocks. Neighborhood associations may choose to partner with business associations to measure demands in residential areas before and after the change to determine if a Residential Parking Permit zone (RPP) is needed. The RPP process is independent from the meter district process and RPPs will only be established when demand exceeds established minimums.

Summary

The following summary table presents the requirements and data needed to establish a new meter district within a Parking Management District (PMD).



REQUIREMENT 1

Has a PMD been established?	Name of PMD
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REQUIREMENT 2

Have time limit restrictions been implemented?	# of short-term stalls
Are time limit restrictions enforced?	# of long-term stalls
	Enforcement hours

REQUIREMENT 3

Does the proposed mixed-use or commercially-zoned area include:	
• At least 80 stalls	# of stalls
• At least 10 contiguous block faces	# of block faces

REQUIREMENT 4

Do peak demands averaged over a contiguous area with at least 80 stalls:	
• Reach or exceed 85% occupancy for 3 or more hours over at least 2 weekdays (measured in separate weeks), and	# of hours ≥ 85%
• Reach or exceed 70% occupancy for 5 or more hours over at least 2 weekdays (measured in separate weeks)	# of hours ≥ 70%

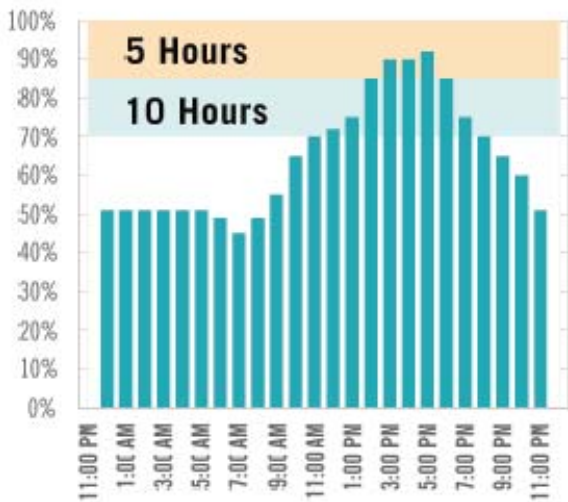
REQUIREMENT 5

Have all residents and businesses within 1,000 feet of each proposed metered block been notified?	# of dwelling units
	# of businesses

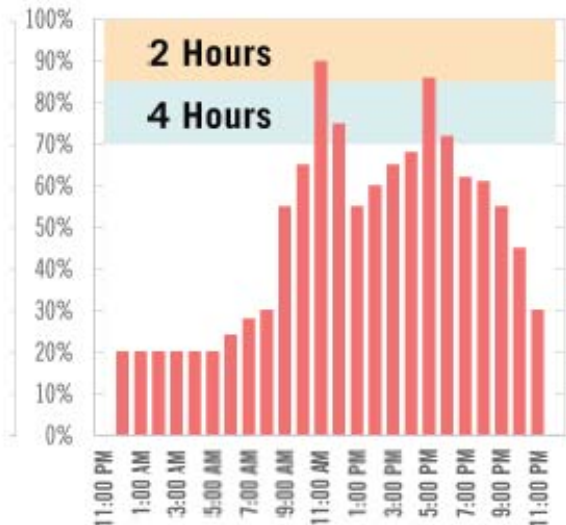
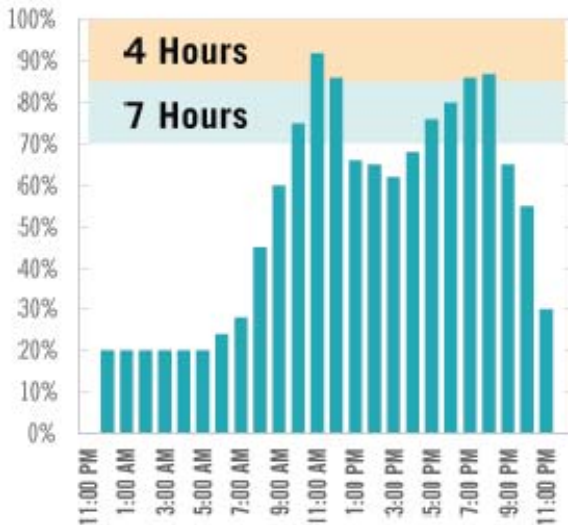
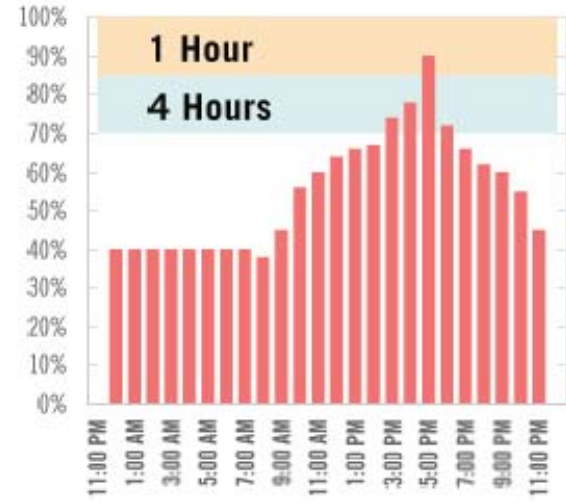
Example Occupancy Analysis

The following charts show a variety of hypothetical results along with the number of hours that would meet occupancy thresholds. Each bar represents an hour of data averaged over a mixed-use or commercially-zoned area containing at least 80 on-street stalls within a contiguous area.

Meets Criteria



Does Not Meet Criteria



Meets Criteria

Does Not Meet Criteria

Appendices