

PARKING COMMISSION

**City of Bloomington
Parking Commission
Work Session Packet**

Tuesday, September 26, 2017

Packet Related Material

1. Meeting Agenda
2. Memo from Jim Blickensdorf
3. Parking Commission Meeting Schedule & Preliminary Agenda Items
4. August Meeting Minutes
5. Financial Report Draft #2 – Comments from Fatih Hawkins
6. Financial Report Draft #3 – Metered Parking
7. Parking Policy Points Draft #2
8. VPTI “Equity Evaluation” and “Basic Access and Basic Mobility” information
9. COB Parking Study RFP
10. COB Methodology for determining occupancy in Residential Neighborhood Zones
11. Raw Data from the Metered Parking Occupancy Calculations

Next Meeting: October 10th, 2017 Dunlap Room #235 5:30 PM

PARKING COMMISSION

MEETING AGENDA

September 26, 2017, 5:30 PM
Hooker Room #245, City Hall

- I. Call to Order
- II. Approval of Minutes
- III. Reports from Commissioners & City Officers
- IV. Public Comment
- V. Discussions of Topics Not the Subject of Resolutions
 - A. COB Parking Study RFP Update
 - B. 2018 Meeting Dates and Times
 - C. COB Staff – Methodology for determining occupancy in Residential Neighborhood Zones
 - D. Adopting changes to the Financial Report - Metered Parking *Amendment by Substitution**
- VI. Resolutions for First Reading and Discussion—None
 - A. Discussion of Parking Commission Policy Objectives (#3, #4, differential pricing component of #8)*
- VII. Resolutions for Second Reading and Discussion — None
 - A. Amendments to Parking Commission Policy Objectives (#1, #2, #5, #8)*
- VIII. Member Announcements
- IX. Adjournment

Next Work Session: October 10, 2017, 5:30 PM, Dunlap Room #235

Next Meeting: October 24, 2017, 5:30 PM, Hooker Room #245

*Action Requested/Public comment prior to any vote, limited to five minutes per speaker.

Auxiliary aids for people with disabilities are available upon request with advance notice.
Please call **(812) 349-3429** or e-mail human.rights@bloomington.in.gov.

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MEMO

From: Jim Blickensdorf, Chairperson, Parking Commission
To: Parking Commissions
Date: September 18, 2017
Re: **Packet Materials for the September 2017 Meeting**

IV. A. COB Parking Study RFP Update

I've included a copy of the City's parking study RFP. Scott Robinson from Planning & Transportation will be updating the Commission on the process and sharing information on the proposals. He's suggested that the Commission select one person to give feedback on the RFPs, and we'll be nominating someone to fill that role.

IV. B. COB Staff – Methodology for determining occupancy in Residential Neighborhood Zones

Amir Kaboli Farshchi, long-range planner for the City of Bloomington has developed a methodology for calculating the legal occupancy of the Neighborhood Zones. The Commission has data on the number of permits that were sold in 2016, but not the actual spaces. Amir has completed calculations on Zone 10 and will be presenting that data to the Commission.

IV. C. Financial Report – Metered Parking

Metered Parking was the topic of discussion at our September work session. At that time, I mentioned that I was unhappy with the quality of writing and the amount of detail included in that section. Taking everyone's feedback into account, I've reorganized and rewritten a large part of the text. I've also added details from my recent analysis of the IPS data. The data files were not available in March when the first draft of the report were written.

There's substantial new information presented in this section. So much, that a markup of the original text would not be helpful to illustrate the changes. New material includes: a "Key Findings" section TL;DR., additional details on the Walker studies which provide context for the occupancy data, an analysis of usage patterns including occupancy by block face and average length of stay, analysis of the parkmobile data files, and rewrite of the staffing and expense section, using feedback from Faith Hawkins comments and comments from the work session.

I'm enclosing Faith Hawkins's comments and the original text of this section.

A lot of material, but I'm hopeful that we can stick to the schedule and produce this report by November. Our scheduled item for this month is to adopt changes to the changes to Garages & Lots section, so the Commission will still have one more month to review the Metered Parking section.

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IV. D. Comprehensive Parking Policy Draft

Parking Resolution 17-04 to adopt a Comprehensive Parking Policy was introduced for first reading in April of 2017. A shortened, ten-point policy plan was introduced in May and made available as a Google doc.

Our schedule for this month:

September 26 Regular Meeting:

- Amend and vote to adopt points 1, 2, 5;
- Discuss points 3, 4, 8 relating to differential pricing.

Draft #2 of the policy document reflecting changes and suggestions from our August meeting is included in the packet. Item's have not been numbered since we have not finalized priority. Item #3, #4, and the differential pricing component of #8 will be discussed at the September Regular meeting.

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Parking Commission Meeting Schedule & Preliminary Agenda Items

October 1

Deadline for Written Comments on Executive Summary, if not attending Work Session

October 10 Work Session:

Executive Summary

October 15 Comment Deadline

Deadline for Written Comments on policy points 6, 8 (marketing)

Deadline for amendments to policy points 3 and 4*

Final Draft of the Financial Report Issued

October 24 Regular Meeting – meeting will likely be 3 hours

Meeting: Adopt Final Financial Report

Amend and vote to adopt points 3, and 4;

Discuss points 6, 8 (marketing)

November 5 Comment Deadline

Deadline for Written Comments on policy points 7, 8 (alternate modes), 9, 10

Deadline for amendments to policy points 6 and 8*

Final Draft of the Financial Report Issued

November 9, 9:15 AM

Staff Liaison meeting at Crumble Bakery

OND Executive Committee Meeting – November 14, 4:30 PM

MCPL Room 1C, (Monroe County Public Library)

November Regular Meeting – November 14 5:30 PM, MCPL Room 1C

Amend and vote to adopt points 3,4, and parts of 8;

Discuss 7,8 (alternate modes, TDM), 9,10

December 2 Comment Deadline

Deadline for amendments to 7, 9, 8 10

December Regular Meeting – December 12 5:30 PM, **Location TBA**

Adopt amendments to 7,8, 10

Vote on forwarding the recommendation to Council (**PKG Resolution 17-04**)

Cocktail reception at Grazie, following meeting

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* Amendments may be proposed at the meeting; however, submitting written amendments by this date will ensure that your comments and amendments will be included in the packet. Please submit all amendments to the Financial Plan and policy document in writing.

No Work Sessions in November or December.

The November meeting has been moved to MCPL Room 1C.

#

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Parking Commission Policy Objectives (Draft #2)

Results of Discussion:

The Commission shall maintain a commitment to openness and sharing of information with stakeholders with emphasis on involving stakeholders and soliciting stakeholders' opinions;

Establish priority levels for each parking use type and access mode within an area or zone, with non-motorized and shared ride modes ranking higher than solo driving;

Establish a Parking Services department that efficiently manages the City's parking system assets and staffing resources;

Reduce cruising/search time for parking spaces implementing improved signage, wayfinding, marketing, real-time parking availability,

September Discussion

Increase the rate at which the most convenient spaces turnover by managing the occupancy time through the use of dynamic pricing and 30-minute and 2-hour time limits;

Establish rate schedule that satisfies the capital and ongoing operating costs of a financially stable, integrated parking system;

Reduce Vehicle Miles Travelled. implement differential pricing to help drivers find a parking space efficiently without cruising for parking and price parking to induce some travelers to adopt other travel modes, thereby reducing VMT and parking use;

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October/November:

Create a brand that provides an exceptional customer service experience and communicates the goals and benefits of managed parking;

Recommend policies that align land-use for parking with the GPP and draft Comprehensive Plan;

Reduce Vehicle Miles Travelled. Reduce time for space search by implementing improved signage, wayfinding, marketing, real-time parking availability, and differential pricing to help drivers find a parking space efficiently without cruising for parking and price parking to induce some travelers to adopt other travel modes, thereby reducing VMT and parking use;

Support alternate modes of transportation in furtherance of the GPP and draft Comprehensive Plan.
Provide the ways and means for better walking, bicycling, shuttle, ride-sharing, bus, and temporary vehicle rental alternatives and services which reduce use of parking;

Allocate surplus parking revenue to Parking Benefit Districts.

A Financial Report on the City's Parking System

City of Bloomington
Parking Commission

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Chapter 4. Metered Parking

Overview

Before 2013

Street parking was metered from sometime before 1950 until 1982, when ²the ¹ were removed in the name of making the downtown more competitive with College Mall and environs. The conversation about replacing free 2-hour parking with meters once again began in earnest in 2006 when Donald Shoup was invited to speak at Council Chambers in April 2006 (a recording of which can be watched at catstv.net). Willson suggests that the “role of on-street parking is to efficiently use a scarce, limited resource to ensure access for priority, short-term visitors to the downtown business district”⁴⁵; this same sentiment was echoed in Walker Parking Consultant’s 2007 and 2012 reports.


2013: Re-establishment of Meters


In 2013, the Common Council adopted Ordinance 13-03, converting 1,539 on-street spaces to single-space smart metered stalls. Rates for on-street metered parking were \$0.25 per fifteen minutes, enforced eight a.m. until ten p.m., six days per week. A significant number of spaces in the Fourth Street Garage were designated as “three hours free,” a policy which would later be expanded. Oversight of Parking Enforcement ⁴was shifted to ³ the Police Department. Parking Enforcement officers began to serve as ambassadors of the City and as a force-multiplier for the Police Department during the course of enforcement activities.


The Common Council retained 2-hour-free parking on 179 on-street spaces at the following locations:


- ▶ Rogers Street from 5th to 11th ⁶(limit of two hours) ⁵
- ▶ Madison Street from 2nd to 3rd
- ▶ Washington Street from 2nd to 3rd
- ▶ Lincoln Street from 3rd to Smith
- ▶ Grant Street from 2nd to Smith


⁴⁵ R. Willson, *op. cit.*, p. 105.


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meters

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 Number: 3 Author: fhawkins Subject: Sticky Note Date: 8/15/17, 11:08:15 AM
from?

 Number: 4 Author: fhawkins Subject: Highlight Date: 8/15/17, 11:08:10 AM

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delete - this information is above

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2015: Abbreviated Enforcement Hours, Expansion of “Three Hours Free”

Council revisited parking regulations in 2015. Ordinance 15-10 shortened the hours of enforcement to nine a.m. until nine p.m., six days per week, and expanded three hours of free parking to all three of the City’s garages.

System Configuration

Regulations that governed Metered Parking are summarized in BMC §15.40.

The rate set by ordinance was one dollar per hour.⁴⁶ Under the prevailing City Code, the Mayor is able to suspend enforcement and the Board of Public Works has the authority to modify rates “in conjunction with special events and promotional activities.”⁴⁷

Visitors that park in the meter zone have the choice to pay for parking by using coins, credit cards or by using the Parkmobile app which was available for iPhone, Android phones, and as a web-based application.

- ▶ Using coins, the rate was \$0.25 per 15-minutes of time. Meters accepted \$1 coins, quarters, dimes, and nickels;
- ▶ Using a MasterCard or Visa credit or debit card or Discover card, rate was \$0.25 per 15-minutes of time with a minimum purchase of one hour. A convenience fee of \$0.30 per card swipe was added to the transaction cost. The fee was designed to offset the City’s cost of processing credit cards.⁴⁸ The City Controller recorded the convenience fee as a separate revenue line-item;⁴⁹
- ▶ Using Parkmobile, the rate was \$0.25 per 15-minutes, rounded up to the nearest fifteen-minute interval, plus a \$0.50 service charge paid by the parker. Parkmobile charged lower service fees to frequent users of the Parkmobile app. Parkmobile accepted credit and debit cards and electronic fund transfers from Paypal.


Metered Parking is enforced Monday through Saturday from nine a.m. until nine p.m. On-street parking is free on Sundays, City holidays, and on-street metered parking was free every Saturday during the month of December.


⁴⁶ BMC §15.40.020 (b) specifies, “The charge for the use of each on-street metered parking space shall be one dollar per hour between the hours of nine a.m. and nine p.m. every day, except Sundays and City holidays.”

⁴⁷ BMC§15.40.20 (c): The board of public works is authorized to alter or modify the hourly charge or method of payment for parking in all municipal parking lots, garages and on-street metered parking spaces in conjunction with special events and promotional activities.


⁴⁸ The City paid IPS Group \$0.13 for every credit card swiped at a smart meter.

⁴⁹Board of Public Works Meeting Packet. October 8, 2013. <<https://bloomington.in.gov/media/media/application/pdf/16354.pdf>>

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Maybe give an example? Saturday parking in December, or parking during 4th Street Festival?


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who

 Number: 4 Author: fhawkins Subject: Highlight Date: 8/15/17, 10:15:48 PM


 Number: 5 Author: fhawkins Subject: Sticky Note Date: 8/15/17, 10:16:41 PM

How about just "using a credit or debit card" (do we care what brands of card are usable?)

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Citations issued in the parking meter zone cost \$20 which escalate to \$40 if not paid within 14 days. Through a partnership with T2, the City provides a gateway for real-time, secure payment of parking citations. The City coordinates collections of unpaid fines with Capital Recovery Systems of Columbus, Ohio.

Metered Parking Financial Performance

The Controller recorded Metered Parking revenue in ² three separate accounts: ¹

- ▶ Revenue from hourly parking
- ▶ Revenue from special event permits. The City permitted private individuals to reserve on-street parking for a special event. For payment of \$5 plus \$1 for every hour of regular enforcement hours, per metered space, the City reserved a space with a “Emergency — No Parking” sign.
- ▶ Convenience fees charged to customers who pay for parking using credit cards

The Commission reviewed meter transaction data that included parking session start and end times, amounts paid, method of payment, and meter ID number. City Legal provided raw transaction data from January 1, 2017 through April 25, 2017. The Commission did not obtain raw transaction data for 2016.

The 2017 data revealed:


- ▶ Coin-only: 69.0% of transactions, 40.3% of revenue;
- ▶ Card-only: 30.8% of transactions, 59.4% of revenue;
- ▶ Coin & Card: 0.2% of transactions, 0.3% of revenue;
- ▶ Online transactions: 0.09% of transactions, 0.03% of revenue.⁵⁰


Parking Meters Generated a Surplus of \$618,000


⁴ The Controller recorded Metered Parking revenue into three separate accounts: ³


- ▶ Revenue from hourly parking;
- ▶ Revenue from special event permits. The City permitted private individuals to reserve on-street parking for a special event. For payment of \$5 plus \$1 per-hour for every hour of regular enforcement hours, per metered space, the City reserved a space with a “Emergency — No Parking” sign.
- ▶ Convenience fees charged to customers who pay for parking using credit cards.

⁵⁰The transaction data file does not distinguish between types of online transactions, i.e., web-based or Parkmobile platform.




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are these accounts? if so, do we need the account numbers?

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delete - this was all just said.

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Key Per-Meter Metrics for FY2016

- ▶   Revenue from usage, per meter: \$1441 ⁵¹
- ▶ Revenue from usage, per meter per week: \$27.72 ⁵²
- ▶ Usage rate: 38.5% ⁵³
- ▶  Revenue from citations, per meter: \$249 ⁵⁴
- ▶ Revenue from citations, per enforcement labor hour: \$23.94 ⁵⁵
- ▶ Cost of enforcement, per labor hour: \$29.74 — 24% more than citation revenue per hour ⁵⁶
- ▶ Revenue from citations: 17.3% of revenue from usage

The Metered Parking system produced a surplus Operational Cash Flow of \$618,142 in FY2016 (Figure 18).

Citation revenue generated from citations issued at metered spaces were deposited in the City's General Fund, rather than the Parking Meter Fund. In FY2016, the citation revenue from Metered Parking citations totaled \$383,108. Citation revenue has declined 46% from peak in 2014.⁵⁷ Coincident with the installation of parking meters, hourly garage spaces were converted from single-space meters to pay-on-exit. As a result, Parking Enforcement officers ceased monitoring the percentage of garage spaces that were previously regulated as hourly parking stalls.

When citation revenue is included, the parking meters generated \$1 million in surplus revenue for the Parking Meter Fund. This amount will increase by \$225,000 once the equipment lease has been satisfied in 2017.

The cash balance of the Parking Meter Fund the end of FY2016 was \$1,608,381.51.

⁵¹ Hourly revenue divided by the 1539 metered spaces.

⁵² Hourly revenue divided by number of metered spaces divided by 52 weeks.


⁵³ Average revenue per week divided by \$72 maximum possible revenue per week.


⁵⁴ Rate calculations based on 1539 metered spaces. 1496 Meters were in service in December 2016.

⁵⁵ 8 FTEs were tasked to Metered Parking enforcement. Calculation assumes 2000 hours per year, per enforcement officer.

⁵⁶ Rate derived from the Neighborhood Zone system. Actual cost is likely less, due to seniority of Neighborhood Zone officers.

⁵⁷ Office of the City Clerk: Report on Parking Tickets Issued & Appealed, January 2017.

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Annual revenue from usage, per meter

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Annual revenue from citations


Figure 18: 2016 Parking Meter Zone Financial Performance.

Item	Amount	Notes
Revenue		
Revenue – No Parking Signs	\$ 25,555.10	
Revenue – Hourly Parking	\$ 2,218,005.77	
Revenue – Convenience Fee	\$ 161,169.30	
Total Revenue	\$ 2,404,730.17	
Expense		
Staffing	\$ (666,774.55)	
Operation Expense	\$ (185,094.97)	
System-Related Expense	\$ (877,432.29)	
General Fund Charges	\$ (57,286.00)	
Total Expense	\$ (1,786,587.81)	
Operational Cash Flow	\$ 618,142.36	Operational Surplus
Other Income	\$ 711.75	
Program Balance	\$ 618,854.11	
Fund Balance as of 12/31/16	\$ 1,608,381.51	
Citations Deposited to 101-02	\$ 383,108.11	
Total Program Balance Including Citations	\$ 1,001,250.47	

Staffing Expense

Parking Meter Fund Pays for Crossing Guards

The staffing expense for Metered Parking (Figure 19) included payments to enforcement officers, supervisors, City Legal, the City's Facilities manager, and Crossing Guards. The Controller recorded salaries paid to Crossing Guards in account '455-26-260000-51120 Salaries and Wages - Temporary'. During In 2016, the City paid Crossing Guards \$60,919.60 in salaries — *this benefit of managed parking is not widely known by the general public.*

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It might be worth referring to the fact that this is because of the ordinance. Perhaps, "and Crossing Guards (the latter per BMC xx.xxx").


 Number: 2 Author: fhawkins Subject: Highlight Date: 8/15/17, 10:23:41 PM

Figure 19: 2016 Parking Meter Zone Staffing Expense.

Staffing - Parking Meter Fund	Amount	Subtotal
455-26-260000-51110 Salaries and Wages - Regular	\$ 351,726.76	
455-26-260000-51120 Salaries and Wages - Temporary	\$ 60,919.60	
455-26-260000-51210 FICA	\$ 29,070.25	
455-26-260000-51220 PERF	\$ 49,945.33	
455-26-260000-51230 Health and Life Insurance	\$ 146,004.56	
455-26-260000-51240 Unemployment Compensation	\$ 729.00	
455-26-260000-53420 Worker's Comp & Risk	\$ 15,937.00	
455-26-260000-52430 Uniforms and Tools	\$ 4,989.07	
455-26-260000-53210 Telephone	\$ 7,452.98	\$ 666,774.55



A schedule of employees **paid from the Parking Meter Fund**, Figure 20, illustrates the variety of positions needed to manage meters. (Salary data was included in the City's response to the data request and provided to the Commission as part of the May 2017 meeting packet.)


Figure 20: 2016 Employees by Department/Job Code Paid from the Parking Meter Fund


- Customer Service/Security Specialist: 1
- Supervisor: 1
- Asst. City Attorney: 1
- Enforcement Officers: 8
- Facilities Staff: 1 (retiring)
- Crossing Guards: 15 (1 on leave)
- Others no longer employed by City: 4

BMC §15.40.015 enumerates the following authorized uses for the funds deposited into the Parking Meter Fund:

- d) Disbursements from the fund shall be made only on orders of the board of works⁵⁸ for the purposes provided in IC § 36-9-12-4 (b), which include:
 - (i) The purchase price, rental fees, and cost of installation of the parking meters;
 - (ii) The cost of maintenance, operation, and repair of the parking meters;
 - (iii) Incidental costs and expenses in the operation of the parking meters, including the cost of clerks and bookkeeping;
 - (iv) The cost of traffic signal devices used in the municipality;

⁵⁸ <<https://bloomington.in.gov/code>> Should read, "Board of Public Works".

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are these partial salaries? clarify

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- (v) The cost of repairing and maintaining any of the public ways, curbs, and sidewalks where the parking meters are in use, and all public ways connected with them in the municipality;
- (vi) The cost of acquiring, by lease or purchase, suitable land for off-street parking facilities to be operated or leased by the municipality;
- (vii) The principal and interest on bonds issued to acquire parking facilities and devices;
- (viii) The cost of improving and maintaining land for parking purposes and purchasing, installing, and maintaining parking meters on that land; and
- (ix) The cost of providing approved school crossing protective facilities, including the costs of purchase, maintenance, operation, and repair, and all other incidental costs.**



Operational Expense

\$238,000 in Maintenance Paid to IPS Group; \$66,700 to T2 Systems

The detail general ledger reports, provided by the City Controller, indicated that payments to IPS Group for credit cards collection fees were the largest operational expense for Metered Parking.

IPS Group provided meter hardware and a “secure gateway.” The smart meters interface with T2 Flex, the system used by City staff to record and process parking and citation transactions. The City incurred a cost of \$0.13 for every credit card processed at the single space meters — the end user was charged a \$0.30 convenience fee to cover this charge. IPS Group also charged a management fee of \$2 per Meter or \$2,992 per-month and \$5,610 per month to maintain the secure gateway. Each month, the City paid IPS Group an average of \$14,800.

Figure 21: 2016 Parking Meter Zone Operating Expense.

Metered Parking Operating Expense	Amount	Subtotal
455-26-260000-52110 Office Supplies	\$ 637.15	
455-26-260000-52240 Fuel and Oil	\$ 3,706.60	
455-26-260000-52420 Other Supplies	\$ 5,299.91	
455-26-260000-53220 Postage	\$ 10,000.00	
455-26-260000-53410 Liability / Casualty Premiums	\$ 8,103.00	
455-26-260000-53620 Motor Repairs	\$ 17,701.00	
455-26-260000-53630 Machinery and Equipment Repairs	\$ 25,187.50	
455-26-260000-53830 Bank Charges	\$ 114,459.81	\$ 185,094.97

Number: 1 Author: fhawkins Subject: Sticky Note Date: 8/15/17, 10:28:12 PM

I'm not sure we need this entire summary. This section is about parking guards - so delete this long list, and refer to it as suggested above.

If the larger intent is to suggest that people who are not supposed to be paid from this account are being paid from this account, then re-label the section. And maybe state that some expenses being paid out of the Parking Meter Fund do not appear to be authorized by BMC.

The costs of credit card processing were recorded as "455-26-260000-53830 Bank Charges". The remainder of the charges paid to IPS Group were recorded in "455-26-260000-53150 Communications Contract".

The City paid T2 Systems for equipment and software. T2 Systems provided the hand-held hardware and software used by Parking Enforcement officers and provided a back-end system for asset management and reporting, as well as, a front-end for parkers who received citations to make payment in real-time. The City paid T2 \$3,231.63 per month for the Flex subscription, a fee of \$1,050 per-month for Flex hosting, and \$262.60 per-month for web-hosting (Figure 21).

Parking Enforcement maintained a database of offenders and sent notices of citations, monthly, via US mail. As part of the billing process, Parking Enforcement staff obtain the name and address registered to the owner of a license plate by performing a RovR lookup. The RovR service was provided by T2 Systems at the cost of \$1.95 per search.

Processing, Maintenance and Overhead: 17.8% of Meter Revenue

In FY2016, the City, to process \$660,000 in credit card transactions at meters, paid IPS Group, Inc. \$114,500 in fees (17.3%). For overhead and maintenance on total meter revenue of \$2.2 million, an additional \$280,000 (12.7%) was paid to IPS Group, Inc. and T2 Systems. Total costs of processing and overhead were 17.8% of revenue.

Operating and system-related expenses are summarized in Figures 21 and 22, respectively. Selected System-Related Expenses are categorized by vendor in Figure 23.

Figure 22: FY2016 Parking Meter Zone System Related Expenses

Parking Meter Zone System-Related Expenses	Amount	Subtotal
455-26-260000-53150 Communications Contract	\$ 213,565.13	
455-26-260000-52340 Other Repairs and Maintenance	\$ 20,294.61	
455-26-260000-53310 Printing	\$ 10,599.72	
455-26-260000-53640 Hardware and Software Maintenance	\$ 66,623.33	
455-26-260000-53840 Lease Payments	\$ 473,169.14	
455-26-260000-53990 Other Services and Charges	\$ 5,603.21	
455-26-260000-54310 Improvements Other Than Building	\$ 87,577.15	\$ 877,432.29

In February 2016, Parking Enforcement purchased a new Ford Colorado pickup truck with snow removal equipment for \$87,577.15. This purchase was recorded as "Improvements Other Than Building." It should be noted that fleet expense is not one of the specifically enumerated uses for the Parking Meter Fund, however, BMC §15.40.015 states that the Parking Meter Fund maybe used for the "...cost of repairing and maintaining


This page contains no comments

any of the public ways, curbs, and sidewalks where the parking meters are in use.” The City also contracted with private entities for snow removal in the garages, and those expenses were recorded in the **Parking Facilities** account.


At the close of FY2016, the Parking Meter Fund balance was \$1.6 million.


Figure 23: Selected System-Related Expenses categorized by Vendor, 2016

Vendor	Amount
Biller Press & Manufacturing,	\$ 2,147.00
Dri-Stick Decal Corp. (Rydin Decal)	\$ 1,506.00
First Financial Equipment Finance, LLC	\$ 473,169.00
Freedom Business Solutions	\$ 274.00
IPS Group, INC	\$ 238,690.00
Karl Clark (KC Designs)	\$ 1,060.00
KNJ, LLC (Quality Collision)	\$ 2,229.00
Midwest Color Printing, INC	\$ 994.00
OneBeacon Insurance Group	\$ 2,721.00
Paper Solutions, INC	\$ 2,445.00
Parkmobile, LLC	\$ 1,404.00
Safeguard Business Systems, INC	\$ 1,045.00
T2 Systems, INC	\$ 66,723.00

 Number: 1 Author: fhawkins Subject: Sticky Note Date: 8/15/17, 10:31:09 PM

Is this the same as the Parking Meter Fund? If not, then move this to a footnote.

 Number: 2 Author: fhawkins Subject: Highlight Date: 8/15/17, 10:30:45 PM

 Number: 3 Author: fhawkins Subject: Sticky Note Date: 8/15/17, 10:32:02 PM

It is not clear on what basis the "selected" expenses enumerated here have been selected. It is not clear to me that this level of detail is helpful or necessary.

Citation Revenue

Cost of Enforcement Outpaces Base Citation Rate

Revenues from citations issued at meters and City surface lots are deposited in the the General Fund. Revenues from citations, fees and collections totaled \$383,108; citations written in Neighborhood Zones and Garages represented an additional \$226,284. In the Metered Parking system:

- ▶ \$23.94 of citation revenue generated per enforcement labor hour;⁵⁹
- ▶ \$29.74 cost per enforcement labor hour—a deficit of \$5.80 compared to the above;⁶⁰
- ▶ Additional costs of RoVR lookups—\$1.95 per lookup;
- ▶ Additional cost related to the preparation of statements;
- ▶ \$10,000 per year (on average) for postage; and
- ▶ T2 front-end hosting; and collection costs.

A \$20 base citation does not cover the total cost of enforcement. By comparison, citations issued by Indiana University Bloomington range from \$25 to \$200. Citations for expired meter parking are \$25 with most other parking citations scheduled at the rate of \$50 per citation.⁶¹

A Model for Setting the Base Citation Rate

City Clerk Nicole Bolden provided citation aging data for the parking system from FY2011 through FY2015 (Figure 24). The report tallied citations by type, the number of citations reversed by appeal, and the number of citations unpaid. Using this data, the Commission was able to calculate a base citation rate that would cover the costs of enforcement.⁶²

Total revenue from citations was \$607,820:


- ▶ \$383,108 from on-street Metered Parking and Garages and Lots
- ▶ \$224,712 from Neighborhood Zones

⁵⁹ 8 FTEs were tasked to parking meter enforcement. Calculation assumes 2000 hours per year, per enforcement officer.


⁶⁰ Rate derived from the NZ system. Actual cost is likely less, due to seniority of NZ officers.


⁶¹ <<https://parking.indiana.edu/citations/pay-citation.html>>

⁶² The total labor costs of Neighborhood Zone and on-street enforcement, less the salaries paid to crossing guards.

 Number: 1 Author: fhawkins Subject: Sticky Note Date: 8/15/17, 10:36:08 PM

Should this be within Chapter 4, since it applies to NZ as well?


 Number: 2 Author: fhawkins Subject: Highlight Date: 8/15/17, 10:34:48 PM

 Number: 3 Author: fhawkins Subject: Sticky Note Date: 8/15/17, 10:35:24 PM

I find this section difficult to follow.

 Number: 4 Author: fhawkins Subject: Sticky Note Date: 8/15/17, 10:38:30 PM

This formatting is overly complex. How about a sentence: "Total revenue from citations in FY 2016 was \$607,820. \$224,712 in citations were collected in Neighborhood Zones; \$383,108 in citations were collected from on-street metered parking and surface lots."

 Number: 5 Author: fhawkins Subject: Highlight Date: 8/15/17, 10:36:38 PM

The total cost of enforcement personnel was ²720,155: ¹

- ▶ \$599,195 for Parking Meter Enforcement⁶³
- ▶ \$118,960 for Neighborhood Zones

The difference of \$112,335 represents a shortfall of 18.5%.

From Figure 24 ³ citations from expired meters accounted for 56% of total citations, with 44.9% of citations escalating from a base rate of \$20 to a \$40 fine. In the Neighborhood Zone system, 39.6% of citations escalated from the base rate. The escalation rate for all citations was 44.5%, making the average revenue from a citation \$28.90.

The City incurred bad debt as a result of uncollectible citations. Between August 2011 and FY2015, 2,325 (1.52%) of 152,842 citation transactions were unpaid. Presumably, these citations were placed into collections and will be settled at a fraction of the base value.

Given,

- ▶ \$607,820 in FY 2016 citation revenue, and
- ▶ an average citation value of \$28.90,

⁵ the average number of citations ⁴ was calculated as 21,032. The Breakeven Average Citation Value sufficient to satisfy the personnel costs of the Neighborhood Zone and Metered Parking systems while accounting for bad debt of 1.52% was calculated according to the following equation:

$$\text{Breakeven Average Violation Value} = \frac{\text{Total Personnel Expense}}{\text{Average Number of Violations} * (1 - \text{Percent Bad Debt})}$$

The Breakeven Average Citation Value was calculated to be \$34.77.

By definition,



$\text{Breakeven Average Violation Value} = (\text{Base Violation Rate})(1 - \text{Escalation Rate}) + 2(\text{Base Violation Rate})(\text{Escalation Rate})$,

The Base Citation Rate was calculated to be \$24.06 using the historical escalation rate of 44.5%.

Increasing citations from \$20 by \$4.06 would generate enough revenue to cover the costs of enforcing parking regulations—approximately \$115,730. Every \$5 increase in the base citation price has the potential to generate \$149,644 in additional revenue for the City, assuming no change in transient parker behavior. An increase in the

⁶³ \$666,774 less \$65,580 for the cost of Crossing Guards.

Number: 1 Author: fhawkins Subject: Sticky Note Date: 8/15/17, 10:43:15 PM

Similarly, how about making this a sentence: "The total cost of enforcement personnel in FY 2016 was \$720,155; of this, \$599,195 was directed to parking meter enforcement and \$118,960 for neighborhood zones."

That said, I am not clear on two things with this data: a) what's the value of distinguishing between the two (NZ and PME)? And b) are the PME personnel ONLY the folks writing citations? Or are these all the salaries being paid out of the parking meter fund? If the latter, is that really "parking meter enforcement" personnel?

Number: 2 Author: fhawkins Subject: Highlight Date: 8/15/17, 10:38:43 PM

Number: 3 Author: fhawkins Subject: Sticky Note Date: 8/15/17, 10:45:46 PM

This figure is for a different period of time than the other financial data. Why? Does it matter?

Number: 4 Author: fhawkins Subject: Sticky Note Date: 8/15/17, 10:46:53 PM

Why do we need to calculate the average number of citations? Do we not know the actual number of citations?

Number: 5 Author: fhawkins Subject: Highlight Date: 8/15/17, 10:46:27 PM

Number: 6 Author: fhawkins Subject: Sticky Note Date: 8/15/17, 10:48:00 PM

This is very confusing and I am not sure if it is effectively getting us where we want to go.

Base Citation Rate may result in an increase of compliance with the prevailing system, thereby decreasing overall citation revenue.⁶⁴

At the time this report was prepared, the Parking Commission had not discussed or made any recommendations concerning citations and enforcement and the Commission does not specifically advocate for an increase as part of this report.

However, depositing citation revenue from Metered Parking into the Parking Meter Fund rather than the General Fund—as is the practice in Neighborhood Zones and Garages & Lots; removing the Council Sidewalk fund from the Neighborhood Zone account; and providing a more detailed accounting of back-office support and overhead for General Fund charges would result in a more transparent reporting of parking-related expenses.

⁶⁴ D. Shoup. *The High Cost of Free Parking*. (American Planning Association, 2011), p. 486-489.

Figure 24: Citations by Violation and Status Summary for dates beginning 8/1/2012 through 12/31/2015

Violation Type	Unpaid Fines	Unpaid	Zero Bal	Inactive	Total	Escalated
Expired Meter x	\$ 0	0	1	0	1	0
Obstruct Traffic - A06-08	\$ 0	0	1	0	1	0
Neighborhood Parking - A13-08	\$ 0	0	1	0	1	1
Other Violation - A17-08	\$ 0	0	3	0	3	2
White Permit Only - A22-08	\$ 0	0	1	1	2	1
Expired Meter - A01	\$ 32,060	1,603	80,749	2,503	84,855	38,103
Yellow Curb - A02	\$ 280	14	2,617	48	2,679	1,248
Overtime Parking - A03	\$ 680	34	18,798	421	19,253	9,445
Alley - A04	\$ 20	1	318	16	335	149
Loading Zone - A05	\$ 0	0	132	4	136	65
Obstruct Traffic - A06	\$ 20	1	183	4	188	93
Permits/Leased - A07	\$ 900	18	296	56	370	0
Backed in Space - A08	\$ 100	5	198	7	210	29
No Parking Zone - A09	\$ 140	7	921	40	968	409
Sidewalk Parking - A10	\$ 40	2	621	13	636	276
Angled Parking - A11	\$ 0	0	5	0	5	2
Left Side Parking - A12	\$ 0	0	7	0	7	4
NH-NEIGHBORHOOD PARKING	\$ 7,680	384	28,025	418	28,827	13,299
NH-PLATE NON MATCH	\$ 80	4	686	30	720	236
Handicapped-A15-13	\$ 0	0	92	42	134	0
Fire Lane - A16	\$ 0	0	96	7	103	0
NH-Wrong Zone - A18	\$ 200	10	970	30	1,010	426
Here To Corner - A19	\$ 0	0	90	1	91	37
Green Permit Only - A20	\$ 0	0	89	34	123	34
Red Permit Only - A21	\$ 20	1	80	21	102	28
CFC/White Lot - A22	\$ 0	0	31	11	42	16
Expired Permit - A23	\$ 0	0	54	8	62	9
Overnight Parking - A25	\$ 0	0	1	0	1	1
Showers Permit Parking - A27	\$ 0	0	89	55	144	30
Private Parking Only - A29	\$ 0	0	55	5	60	25
City Hall Visitor Parking	\$ 0	0	83	8	91	34
Parked Facing Traffic - A31	\$ 360	18	2,123	49	2,190	740
Oversize Vehicle - A32	\$ 0	0	8	2	10	0
Too Far From Curb - A33	\$ 20	1	378	2	381	106
Too Close To Intersection -A34	\$ 0	0	41	2	43	13
Electric Veh Parking Only - A35	\$ 0	0	25	1	26	11
Handicapped - A15	\$ 900	9	531	123	663	0
Outside Of Marked Space	\$ 180	9	1,012	24	1,045	291
NH-PARKED FACING TRAFFIC	\$ 460	23	842	6	871	329
NH-YELLOW CURB	\$ 840	42	1,645	12	1,699	727

NH-OVERTIME PARKING	\$ 1,580	79	2,245	21	2,345	1,126
NH-ALLEY	\$ 60	3	184	4	191	74
NH-LOADING ZONE	\$ 0	0	13	1	14	5
NH-OBSTRUCT TRAFFIC	\$ 40	2	37	1	40	15
NH-NO PARKING ZONE	\$ 360	18	684	9	711	266
NH-SIDEWALK PARKING	\$ 80	4	564	5	573	218
NH-HANDICAPPED	\$ 0	0	13	3	16	0
NH-FIRE LANE	\$ 500	10	120	0	130	0
NH-HERE TO CORNER	\$ 0	0	96	0	96	53
NH-PRIVATE PARKING ONLY	\$ 0	0	8	0	8	3
NH-OVERSIZE VEHICLE	\$ 0	0	6	0	6	2
NH-TOO FAR FROM CURB	\$ 80	4	170	1	175	72
NH-TOO CLOSE TO INTERSECTION	\$ 0	0	34	0	34	6
NH-ANGELED PARKING	\$ 0	0	0	1	1	1
NH-UNAPPROVED SURFACE	\$ 450	9	291	15	315	0
BPD/White Lot	\$ 40	2	8	9	19	6
UNAPPROVED SURFACE PARKING	\$ 400	8	70	2	80	0
Total	\$ 48,570	2,325	146,441	4,076	152,842	68,066

A Financial Report on the City's Parking System

City of Bloomington
Parking Commission

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Chapter 4. Metered Parking

Key Findings

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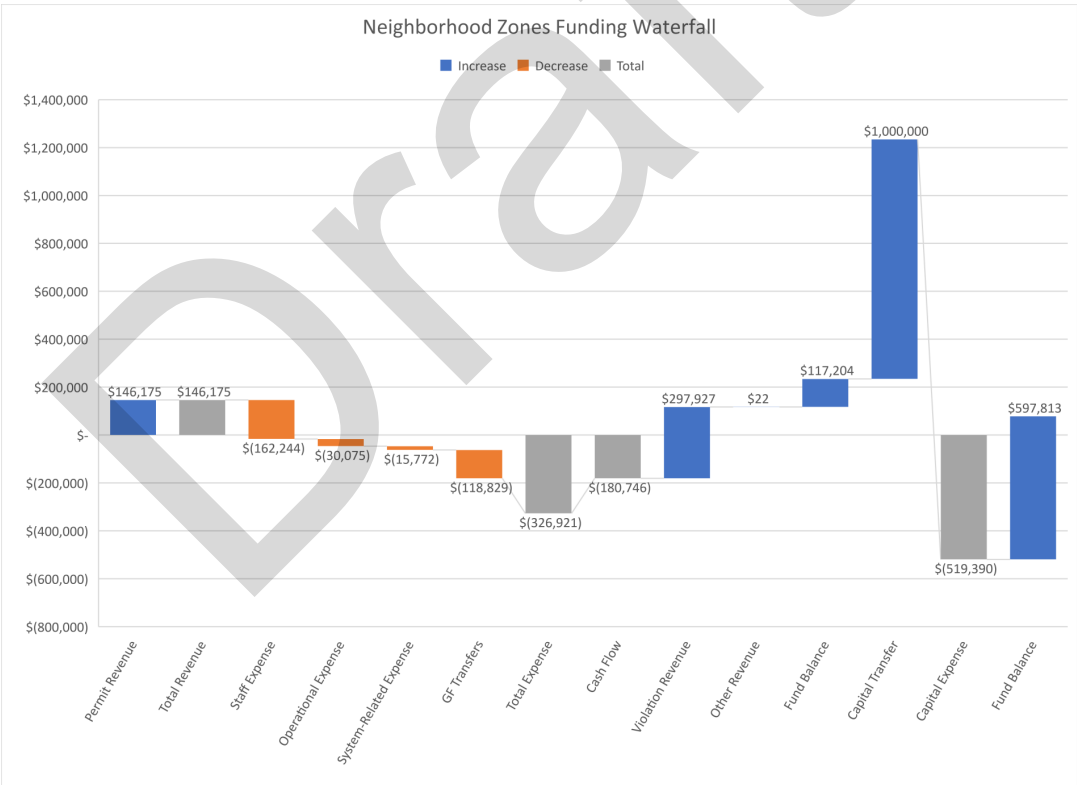


Figure 18: 2016 Metered Parking Fund Summary.

Cras mattis iudicium purus sit amet fermentum. Praeterea iter est quasdam res quas ex communi. Tityre, tu patulae recubans sub tegmine fagi dolor. Curabitur blandit tempus ardua ridiculus sed magna. Quisque placerat facilis egestas cillum dolore. Sed haec quis possit intrepidus aestimare tellus.

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Purpose

Though the Bloomington parking system has historically aligned in favor of the parker, on-street parking in the public right-of-way has always had qualities of the sharing economy. The land devoted to parking is collectively owned and used by many different people over the course of the day. This fact makes on-street parking a useful and important aspect of land-use and transportation policy, but it must be actively managed for efficient and optimal use.

The value of a scarce resource can be defined as a function of intensity (the frequency of use) and the sharability (with emphasis given to priority users). A never-used parking space is worthless—it serves nobody's transportation needs. Accordingly, the value the space increase as the intensity changes from almost never used to being used many times per day, most of the days of the week, and many months of the year. Furthermore, on-street parking should ensure access to the defined priority users. In areas that have high parking constraints that are also intended for short-term visitor access, it is critical that parking management strategies preclude employees, residents, and long-term parkers from monopolizing the limited supply. If high-priority users are prevented from using on-street parking, then the parking resources are inefficiently used. This inefficiency contributes to conflicts between users and is not supportive of off-street parking or alternative mode options. Therefore, the goals of on street metered parking should be to efficiently manage and promote turnover of a limited amount of on-street spaces where demand exceeds supply by emphasizing a combination of high-intensity of use and high sharing of the available parking spaces.

Management of public on-street parking would not be necessary if low-cost land were abundant and available for parking construction. Parking management reduces the need to build additional parking for future development and allows the existing parking supply to be reduced if better uses exist for vacant parcels or building areas in downtown Bloomington. It also improves the prospects for the development and use of alternative travel modes. For example, high parking charges induce some travelers to walk, bicycle, use transit or be dropped off.

Parking behavior is largely predictable⁴⁵: users consider the trade-off between out-of-pocket parking price and proximity, parking search time, walking distances and parking convenience, and personal safety in deciding where to park. Increased enforcement and penalties can reduce illegal parking, while an increase in the value of walking or searching time will increase the rate of violation.

The implication is that drivers will respond to changes in price in a relatively predictable way. However, pricing is not the only strategy. Properly calibrated time limits and adjusting the hours or time(s) of enforcement combined with differential and dynamic pricing—adjusting the price by the length of stay, time of day, or by demonstrated demand—can maximize the use of a limited parking supply.

In this chapter, the Commission provides data to address the following questions: Are parking occupancies regularly above 85%, indicating that spaces in popular locations are difficult to find, which produced cruising and visitor frustration? What are the space demand patterns (using an occupancy standard for decision-making) that would trigger an upward or downward adjustment of rates? Further, are rates appropriate to cover normal annual increases in operations of the system? Moreover, what are the key performance metrics that indicate the City is operating the parking system in an efficient, cost-effective manner that supports the continued growth of the system and furthers economic well-being of the downtown?

History of Parking Studies and Parking Meters

2007 Parking Study

Street parking was metered from sometime before 1950 until 1982, when meters were removed in the name of making the downtown more competitive with College Mall and environs. The conversation about replacing free 2-hour parking with meters once again began in earnest in 2006 when Donald Shoup was invited to speak at Council Chambers in April 2006 (a recording of which can be watched at catstv.net). One year later, the City published the results of the first study conducted by Walker Parking Consultants. Walker's study focussed on a 56-block area centered around the central business district and included a review of the available parking supply, a forecast for the next five and ten year period, and a number of recommendations about on-street and off-street parking in the Central business district.

Walker reported a total of approximately 8,229 spaces in the study area: 1,475 were on-street, and 6,754 were off-street. Of the off-street spaces, 890 were open to the public and 5,864 were private or restricted-use spaces. [2007, page 6] After the effective supply factor was applied to the total supply numbers, the study area's effective supply was 7,632 spaces. The observed peak parking occupancy for the study area was approximately 5,117 vehicles.

⁴⁵ Gur, Y.J., Beimborn, E.A.: Analysis of Parking in Urban Centers: Equilibrium Assignment Approach. Transportation Research Record 957 (1984), p. 55–62.

[2007, p 13]. Peak occupancy occurred during the weekday daytime counts and represented 62% of the parking supply.⁴⁶

Approximately 24 blocks had negative adequacy for the on-street spaces. Most of the blocks experienced either shortage of parking or tight parking conditions were located within the central core of the downtown study area, and the eastern portions of the study area, near the Indiana University campus. The following two images highlight the findings of the 2007 Walker report.

DOWNTOWN PARKING MASTER PLAN

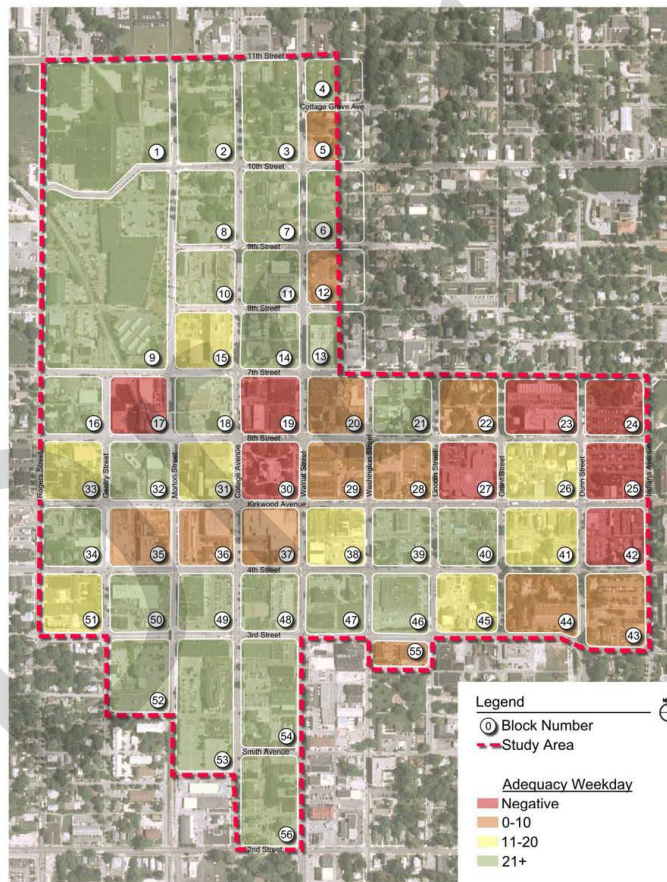
CITY OF BLOOMINGTON

APRIL 26, 2007

PROJECT # 13-2822.00



Figure 2: Current Parking Adequacy -Weekday



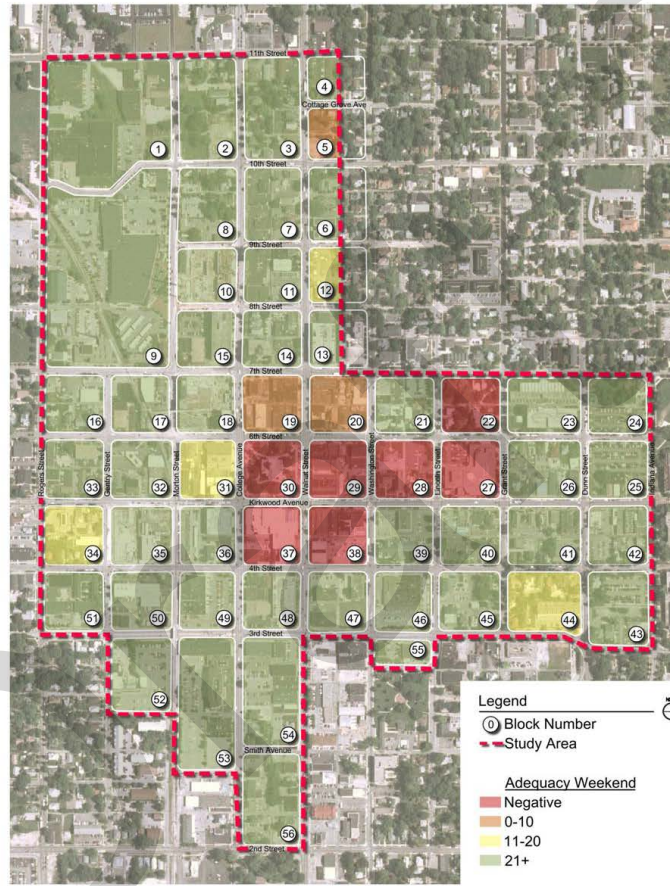
Walker Parking Consultants, 2007

Figure 19: 2007 Weekday Parking Adequacy Map.

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⁴⁶ Walker Parking Consultants. City of Bloomington Downtown Parking Master Plan. . April, 2007., p. 6.

Figure 3: Current Parking Adequacy -Weekend



Walker Parking Consultants, 2007

Figure 20: 2007 Weekend Parking Adequacy Map.

21

Parking supply operates at peak efficiency when parking occupancy is 85 percent to 95 percent of the supply. When occupancy exceeds this level, users may experience delays and frustration while searching for a space. Therefore, the parking supply may be perceived as inadequate even though there are some spaces available in the parking system.

The 2007 Walker Report assumed a 3% growth rate and projected a parking space deficit over a 10-year period. To accommodate growth below 85% occupancy threshold, Walker recommended the creation of an additional 320 spaces (plus any displaced spaces) in the same general area as the blocks that were experiencing deficits during the study period.⁴⁷

Walker noted that many of the on-street parking spaces were occupied by long-term parkers. During the time of the study, a user could park on a block-face for two hours at no-charge. Some users re-parked at two-hour intervals.⁴⁸

At the time of the study, parking was being provided for free, but not without significant cost. Because of higher land cost, greater density of development, higher development costs of structured parking, and the higher property tax burden, the real cost of providing adequate parking was far higher than in comparable suburban markets.

Providing free on-street parking damage the profitability of private parking investments and deprives the downtown parking system of an important revenue stream. Thus, Walker noted,

"providing free short-term parking spaces puts the City of Bloomington in the position of being the ultimate provider of parking for the foreseeable future. As parking revenue is not sufficient to amortize the costs of constructing parking at today's parking rates, free parking increases the required subsidy of the cost of parking, which in turn increases the property tax burden on all city property owners. The current policy also damages the ability of the parking system to accommodate future growth."

Walker made the following recommendations as part of the 2007 report:

On-Street Parking Recommendations

1. Increase and improve wayfinding (signage) to direct patrons to other parking options .
2. Increase signage notifying patrons of the two-hour limit was recommended.
3. Reintroduce parking meters in the downtown core area.
4. Implement a Parking Ambassador program.
5. Re-evaluate location of loading zones on College and Walnut Streets.
6. Clearly mark on-street spaces on the pavement.

Off-Street Recommendations

1. Establish standard procedures for implementing Shared Parking.
2. Educate planning officials and developers on the potential of Shared Parking.
3. Explore a shuttle program downtown to include full-time regular routes between parking locations.
4. Increase feel of safety and comfort for patrons.

⁴⁷ Walker Parking Consultants. City of Bloomington Downtown Parking Master Plan. . April, 2007., p. 25.

⁴⁸ Walker Parking Consultants. City of Bloomington Downtown Parking Master Plan. . April, 2007., p. 47.

5. Limit or eliminate the use of guaranteed reserved spaces.
6. Expand wayfinding to include pedestrian signs from (garages and lots) to merchant/business locations.
7. Evaluate current lighting resources, and update to new lighting fixtures that are more energy efficient.
8. Allow vending machines in parking structures to capture alternative revenue.

Public resistance and concern about the recession caused the Kruzan administration to table the idea of meters. The two-free parking policy in the central business district was continued. Few of the recommendations of the 2007 Walker report were adopted.

2012 Parking Study

The Kruzan administration revisited the issue of Downtown parking in 2012, contracting with Walker for an update of the 2007 study. In the updated report, Walker noted that the Downtown area had experienced increased parking demand from numerous new developments—two hotels, several apartments, a new trail and several other projects.

In the 2012 report, Walker addressed the integrated nature of on-street and off-street parking, noting that “Ideally, the off-street parking would be used for longer-term parking and would provide an easy place to park in the area without having to search for an open on-street space. When on-street parking, which is the most convenient, is priced lower than the off-street parking, demand for on-street parking only increases. Thus, parking and conversely, traffic, increase as patrons and employees circulate looking for an open, “free,” and convenient on-street parking space. Demand from employees further exacerbates the problem, as these parkers tend to utilize the on-street parking spaces for extended periods of time. The recommended strategy for encouraging turnover and reducing the number of employees parking in the prime on-street areas is to implement metered parking.”

In 2012, following an update to the 2007 study, Walker recommended:

1. Eliminating the two-hour, on-street parking system and transition to a metered system.
2. Installation of multi-space meters
3. Providing free parking in blocks 52 and 53.
4. Developing an effective communications plan.
5. Developing a website and printed materials focusing on how the meters work.
6. Emphasis on credit card acceptance.
7. Enhancements of the Residential Permit Program including: increasing the size or number of zones; and analyzing the cost of administration of the program and adjusting rates to cover the costs, as needed.
8. Changing enforcement hours to 8 a.m. – 10 p.m.

2013: Re-establishment of Meters

In 2013, the Common Council adopted Ordinance 13-03, re-establishing parking meters in the central business district. Following a public process involving the Greater Bloomington Chamber of Commerce, BTOP, downtown merchants, and concerned citizens, the Kruzan administration proposed the installation of single-space smart meters in the central business district rather than that multi-space meters recommended by Walker Parking Consultants. The Common Council adopted Ordinance 13-03 in March of 2013. The Ordinance authorized the installation of parking meters in the downtown business district. Regulations that governed Metered Parking were codified in BMC §15.40 (Appendix XX).

Ordinance 13-03 converted 1,539 on-street spaces to single-space smart metered stalls. Rates for on-street metered parking were set at \$0.25 per fifteen minutes, enforced eight a.m. until ten p.m., six days per week. Figure 18 illustrates the location of the meter zone. ParkMobile was approved as the mobile payment vendor.

Out of a concern that there should always be “free” and available parking in the downtown, the Common Council designated a significant number of spaces in the Fourth Street Garage as “free” for the first three hours of parking—a policy which would be expanded in 2015—and Council retained 179 on-street parking spaces (located throughout the downtown) as free parking.

Free on-street parking was available parking at the following locations:

- ▶ Rogers Street from 5th to 11th (limit of two hours)
- ▶ Madison Street from 2nd to 3rd
- ▶ Washington Street from 2nd to 3rd
- ▶ Lincoln Street from 3rd to Smith
- ▶ Grant Street from 2nd to Smith

Following the adoption of Ordinance 13-03, Mayor Kruzan shifted oversight and enforcement of parking regulations from a centralized Parking Enforcement office to the City Police Department. Parking Enforcement officers began to serve as ambassadors of the City and as a force-multiplier for the Police Department during their routine enforcement duties. The remainder of the Parking Enforcement Office’s responsibilities were decentralized by the Kruzan administration, with parking oversight responsibilities distributed between five different City departments.

Bloomington Downtown Parking Meter Area

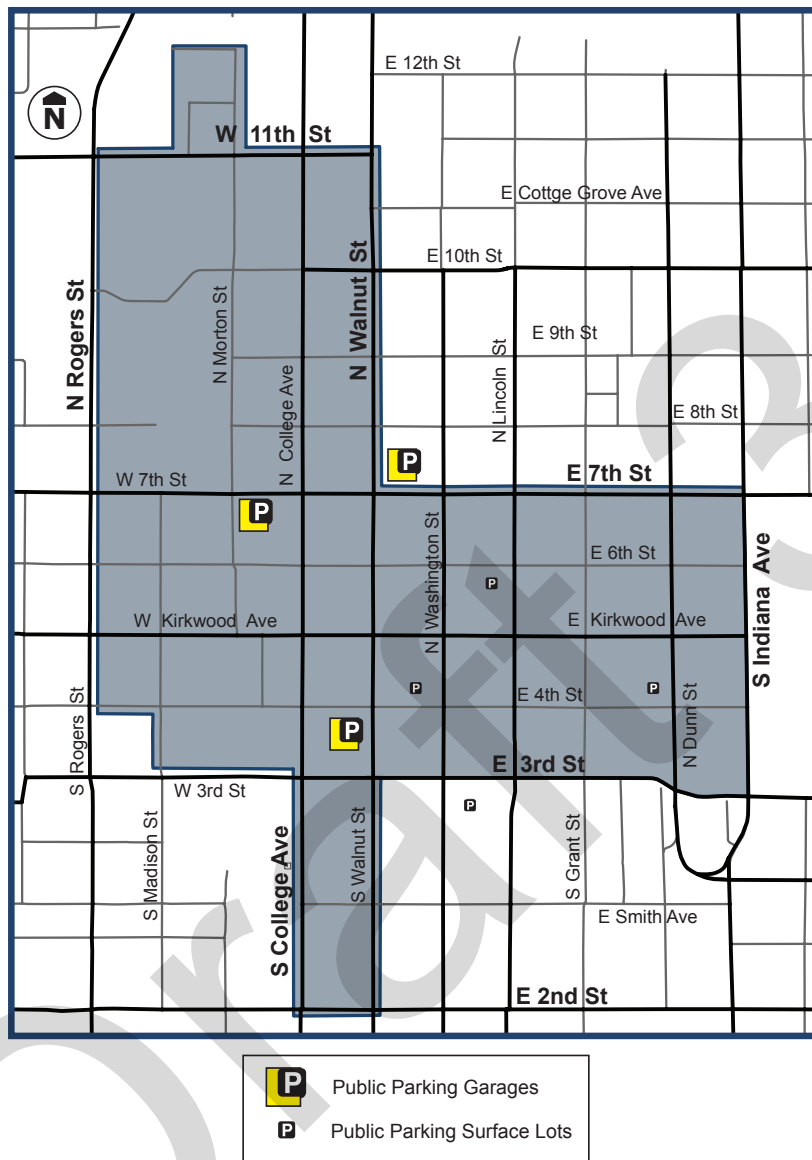


Figure 21: 2013 City of Bloomington Meter Zone.

2015 Changes to Metered Parking Regulations

In 2015, the Common Council further revised parking regulation in Ordinance 15-10 that shortened the hours of enforcement from nine a.m. until nine p.m., six days per week; modified the functionality of the ParkMobile payment system from a fixed-time purchase to a stop-start mode, and expanded three hours of “free” parking to all of the city’s garage and Lots, with the exception of Lot 1 which was located at Dunn Street and East Fourth Street.

The 2015 amendments to BMC §15.40, gave the Mayor the ability to suspend enforcement, for example, on Saturdays during December, and authorized the Board of Public Works to modify rates “in conjunction with special events and promotional activities.”

System Configuration

All on-street parking stalls in the Meter Zone were equipped with IPS Smart Meters allowing visitors the choice to pay for parking by using a combination of coins or credit cards. Conventional meters were retained at a majority of the City's off-street surface lots and accepted only coins. At both on-street and off-street surface lots, visitors were able to pay parking fees using the ParkMobile application which was available for iPhones, Android phones, and as a web-based application.

- ▶ Using coins, the rate was \$0.25 per 15-minutes of time.⁴⁹ IPS Smart Meters accepted \$1 coins, quarters, dimes, and nickels; conventional meters installed in surface lots accepted quarters, dimes, and nickels;
- ▶ Using credit or debit cards, the rate was \$0.25 per 15 minutes of time with a minimum purchase of one hour. A convenience fee of \$0.30 per swipe was added to the transaction cost. This fee offset the City's credit card processing costs and was recorded as a separate revenue item by the City Controller's office.⁵⁰
- ▶ Using ParkMobile, the rate was \$0.25 per 15 minutes, rounded up to the nearest fifteen-minute interval, plus a service charge ranging from \$0.30 to \$0.50 paid by the user. ParkMobile charged lower service fees to frequent users of the ParkMobile app. Park Mobile accepted credit and debit cards and electronic fund transfers from PayPal. ParkMobile service charges were retained by the company. The City received no share of the service charge.

During 2016, Metered Parking was enforced Monday through Saturday from nine a.m. until nine p.m. The Mayor may suspend enforcement of parking meters and parking garages during the holiday season, in the event of inclement weather, or under other circumstances, the mayor deems appropriate and reasonable. On-street parking was free on Sundays, City holidays, and on-street metered parking was free every Saturday during December 2016. Furthermore, the Board of Public Works has the authority to modify rates “in conjunction with special events and promotional activities.”⁵¹

Certainly, maintaining sound fiscal management plays a role in rate setting, but the key goal is to balance occupancy rates—below 85%, users are likely to find a parking space close to their destination. Understandably, adjusting parking rates is a very controversial topic among stakeholders. However, if parking rates are not routinely reviewed

⁴⁹ BMC §15.40.020 (b) specifies, “The charge for the use of each on-street metered parking space shall be one dollar per hour between the hours of nine a.m. and nine p.m. every day, except Sundays and City holidays.”

⁵⁰ The City paid IPS Group \$0.13 for every credit card swiped at a smart meter.

⁵¹ BMC§15.40.20 (c): The board of public works is authorized to alter or modify the hourly charge or method of payment for parking in all municipal parking lots, garages and on-street metered parking spaces in conjunction with special events and promotional activities.

and adjusted within the context of a clear, fair and objective policy framework, then when rates are increased, the increase can be substantial because a long period passes before fiscal challenges or occupancy patterns necessitate increases.

Metered Parking Financial Performance

The City derived revenue from Metered Parking in three sources: hourly parking fees, convenience fees charged to users who pay for parking using credit cards, and the sale of special event permits. Individuals who wished to reserve on-street parking for a special event were charged \$5 plus \$1 for every hour of regular enforcement hours, per metered space.

The Controller recorded Metered Parking revenue in City account 455. Revenues from hourly parking, credit card convenience fees, and special event permits, were separated in three sub-accounts.



Figure 22 & 23: 2016 Metered Parking Revenue by Source and Payment Type.

Usage Patterns

In preparing this report, the Commission requested the IPS and ParkMobile data files from City Legal and Parking Enforcement. The files contained raw data for every meter transaction and every ParkMobile transaction processed in 2016. The Commission reviewed 1.8MM IPS transactions and 95M ParkMobile transactions to determine parking session start and end times, amounts paid, the method of payment, and meter ID number (which indicated zone and block face). Using this data, the Commission was able to calculate the distribution of payment methods, accumulation and parking load, meter performance by block face, and the mean block face occupancy. Further examination of the data revealed XX blocks with a parking adequacy equal to or less than the blocks studied in the 2007 Walker report.

Transactions by Payment Methods

For the period January 1, 2016 through December 31, 2016:

- ▶ Coin-only: 41.71% of transactions, 43.52% of revenue;
- ▶ Card-only: 58.25% of transactions, 56.32% of revenue;
- ▶ Coin & Card: 0.05% of transactions, 0.16% of revenue;

Mean Block Face Occupancy

Block-face occupancy describes the percent of meter utilization. Block-face occupancy was calculated by dividing the aggregate amount of time purchased by users on a particular block face by the total available enforcement time specified per month. The average monthly block-face occupancy for each City block was computed as a weighted average, considering the differing number of meters per block-face and the actual number of days of enforcement during each month. The annual, mean block-face occupancy was computed as a weighted average of the monthly occupancy rates and found to be 37.73%. This rate is far less than the peak occupancy of 62% reported by the 2007 Walker study. Figure X lists the calculated 2016 block-face occupancies by month. Occupancies that exceed 70% are highlighted in yellow; occupancies in excess of 85% are highlighted in red.

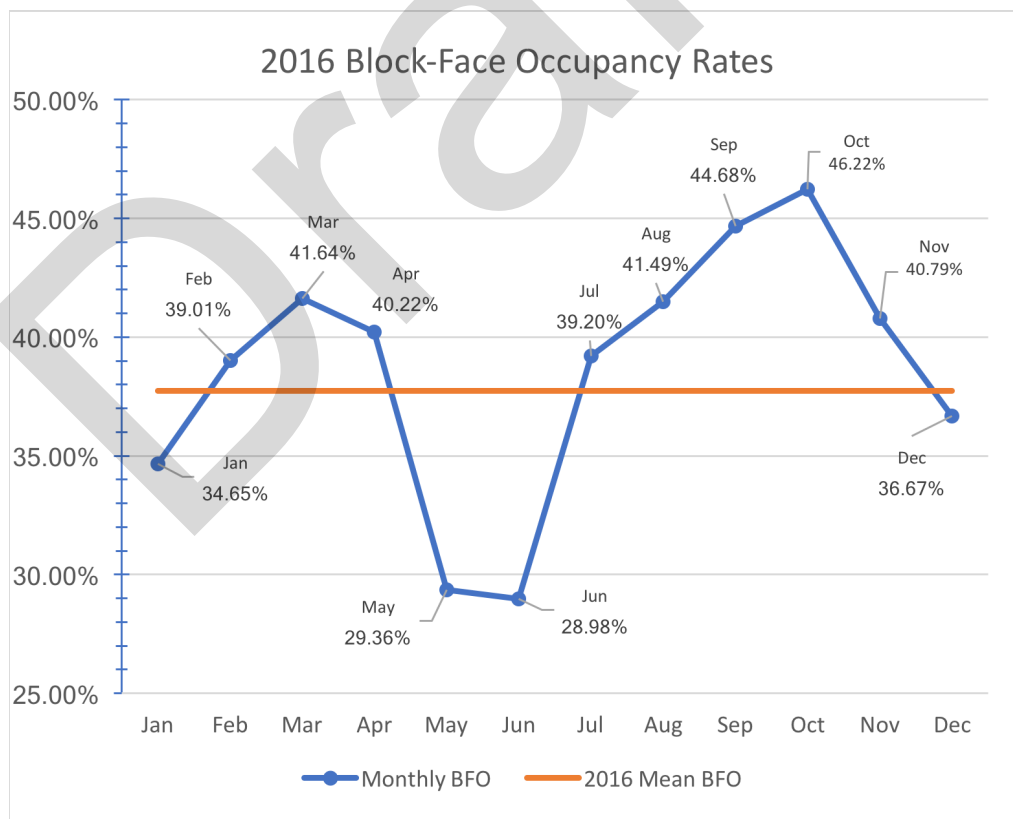


Figure 24: Block-Face Occupancies by Month and Mean Block Face Occupancy.

Blockface	Zone	Jan Park Occ	Feb Park Occ	Mar Park Occ	Apr Park Occ	May Park Occ	Jun Park Occ	Jul Park Occ	Aug Park Occ	Sep Park Occ	Oct Park Occ	Nov Park Occ	Dec Park Occ	Mean BFO
100 W 8TH	Zone 1	12%	16%	13%	18%	5%	8%	9%	24%	24%	25%	10%	9%	14%
100 W 9TH	Zone 1	18%	18%	16%	17%	8%	21%	15%	23%	38%	42%	22%	16%	21%
200 W 11TH	Zone 1	20%	24%	20%	24%	5%	11%	10%	24%	26%	30%	18%	20%	19%
200 W 8TH	Zone 1	8%	6%	9%	13%	2%	6%	7%	17%	17%	16%	9%	15%	10%
200 W 9TH	Zone 1	25%	28%	19%	27%	9%	19%	17%	48%	32%	34%	22%	17%	25%
300 N College	Zone 1	55%	66%	62%	60%	31%	64%	52%	69%	67%	61%	48%	55%	57%
300 N Morton ST	Zone 1	41%	47%	40%	46%	23%	40%	47%	55%	56%	55%	45%	43%	44%
300 N Walnut	Zone 1	29%	38%	35%	31%	11%	25%	21%	32%	32%	36%	22%	29%	28%
300 W 11TH	Zone 1	29%	37%	50%	40%	18%	33%	31%	31%	27%	32%	22%	26%	31%
300 W 12TH	Zone 1	12%	20%	21%	23%	5%	14%	10%	11%	15%	14%	7%	9%	13%
400 N College	Zone 1	38%	40%	33%	40%	14%	32%	36%	42%	39%	45%	33%	34%	35%
400 N Morton ST	Zone 1	46%	49%	52%	52%	25%	52%	57%	66%	56%	61%	46%	47%	50%
400 N Walnut	Zone 1	22%	25%	16%	17%	8%	13%	15%	18%	37%	34%	19%	13%	20%
400 W 11TH	Zone 1	18%	39%	44%	26%									32%
400 W 8TH	Zone 1	2%	5%	5%	12%	5%	8%	9%	4%	7%	7%	4%	3%	5%
500 N College	Zone 1	18%	24%	16%	20%	5%	15%	18%	39%	27%	29%	18%	17%	20%
500 N Morton ST	Zone 1	20%	22%	29%	34%	22%	37%	48%	57%	34%	31%	21%	16%	31%
500 N Morton St - Permit	Zone 1	13%	19%	13%	21%	7%	15%	20%	21%	15%	17%	10%	5%	15%
500 N Walnut	Zone 1	13%	16%	12%	11%	6%	25%	21%	21%	28%	29%	21%	19%	18%
600 N College	Zone 1	15%	18%	16%	16%	7%	15%	14%	24%	22%	25%	15%	17%	17%
600 N Morton ST	Zone 1	12%	16%	13%	18%	6%	16%	15%	35%	23%	19%	11%	10%	16%
600 N Walnut	Zone 1	10%	7%	8%	9%	4%	9%	9%	11%	15%	17%	13%	10%	10%
700 N ASHLYNN PARK	Zone 1	19%	34%	51%	42%	13%	25%	19%	24%	21%	19%	12%	15%	24%
700 N MORTON	Zone 1	14%	21%	18%	22%	5%	12%	12%	17%	19%	17%	7%	9%	14%
800 N MORTON	Zone 1	11%	11%	11%	13%	6%	11%	7%	5%	9%	11%	7%	6%	9%
100 N Madison	Zone 2	10%	14%	9%	12%	4%	10%	12%	12%	14%	10%	10%	10%	10%
100 N Morton ST	Zone 2	50%	55%	52%	50%	25%	54%	59%	56%	55%	58%	42%	49%	50%
100 S Madison	Zone 2	11%	15%	16%	16%	6%	16%	18%	14%	14%	15%	8%	12%	13%
200 N Madison	Zone 2	15%	16%	12%	11%	8%	19%	15%	19%	21%	23%	20%	21%	16%
200 N Morton ST	Zone 2	45%	56%	49%	49%	25%	58%	56%	60%	56%	61%	44%	48%	50%
200 S Madison	Zone 2	5%	8%	13%	13%	4%	12%	16%	11%	9%	13%	13%	12%	11%
200 W 4TH	Zone 2	42%	49%	45%	37%	20%	44%	49%	42%	40%	44%	31%	41%	40%
200 W 6TH	Zone 2	58%	68%	61%	54%	29%	60%	60%	66%	66%	65%	50%	66%	58%
200 W 7TH	Zone 2	58%	68%	61%	58%	28%	69%	59%	58%	62%	66%	52%	51%	57%
200 W Kirkwood	Zone 2	61%	64%	57%	49%	26%	60%	61%	68%	57%	66%	47%	61%	56%
300 W 4TH	Zone 2	27%	41%	44%	37%	18%	47%	45%	33%	30%	41%	27%	39%	35%
300 W 6TH	Zone 2	23%	28%	23%	26%	12%	28%	32%	33%	34%	33%	24%	24%	26%
300 W 7TH	Zone 2	32%	40%	37%	39%	17%	44%	44%	45%	40%	47%	36%	35%	37%
300 W Kirkwood	Zone 2	37%	41%	43%	36%	18%	41%	42%	43%	40%	41%	31%	44%	38%
400 W 4TH	Zone 2	13%	18%	18%	17%	7%	18%	18%	15%	16%	18%	12%	11%	15%
400 W 6TH	Zone 2	10%	13%	8%	9%	6%	16%	16%	14%	15%	15%	13%	11%	12%
400 W 7TH	Zone 2	9%	13%	10%	16%	7%	15%	15%	14%	15%	29%	18%	7%	14%
400 W Kirkwood	Zone 2	0%	8%	9%	8%	3%	8%	1%	2%	12%	12%	9%	9%	7%
100 E 4TH	Zone 3	29%	31%	30%	33%	14%	28%	30%	34%	44%	42%	30%	48%	32%
100 E 6TH	Zone 3	47%	55%	49%	45%	20%	47%	47%	57%	50%	59%	42%	58%	47%
100 E 7TH	Zone 3	33%	39%	33%	29%	17%	41%	35%	49%	49%	49%	36%	40%	37%
100 E Kirkwood	Zone 3	72%	82%	75%	67%	35%	81%	76%	79%	72%	84%	63%	83%	71%
100 N College	Zone 3	72%	83%	83%	70%	35%	78%	76%	82%	79%	85%	65%	84%	73%
100 N Walnut	Zone 3	70%	82%	83%	73%	38%	85%	84%	89%	83%	86%	72%	88%	77%
100 S College	Zone 3	49%	62%	56%	50%	26%	56%	58%	63%	64%	62%	44%	62%	53%
100 S Walnut	Zone 3	63%	78%	69%	64%	33%	73%	74%	72%	73%	78%	62%	82%	67%
100 W 4TH	Zone 3	35%	60%	44%	42%	16%	42%	42%	43%	44%	52%	30%	47%	41%
100 W 6TH	Zone 3	73%	77%	73%	73%	36%	70%	77%	83%	65%	80%	63%	78%	70%
100 W 7TH	Zone 3	54%	58%	58%	52%	23%	54%	51%	56%	56%	58%	46%	55%	51%
100 W Kirkwood	Zone 3	65%	74%	72%	64%	33%	68%	72%	75%	64%	76%	57%	78%	65%
200 N College	Zone 3	43%	56%	54%	45%	23%	54%	52%	60%	56%	53%	42%	50%	49%
200 N Walnut	Zone 3	55%	59%	67%	50%	26%	58%	58%	61%	55%	58%	42%	57%	53%
200 S College	Zone 3	15%	22%	21%	23%	7%	19%	17%	18%	30%	24%	15%	20%	19%
200 S Walnut	Zone 3	11%	26%	19%	27%	8%	23%	19%	21%	38%	31%	19%	24%	22%
300 S College	Zone 3	2%	2%	2%	4%	2%	3%	2%	2%	9%	3%	3%	1%	3%
300 S Walnut	Zone 3	14%	17%	14%	21%	11%	16%	20%	18%	27%	20%	13%	12%	17%
400 S College	Zone 3	11%	17%	21%	13%	7%	13%	15%	12%	15%	20%	11%	12%	14%
400 S Walnut	Zone 3	16%	24%	22%	23%	15%	26%	29%	28%	38%	30%	20%	26%	24%
100 N Lincoln	Zone 4	46%	69%	59%	58%	21%	49%	45%	56%	64%	49%	57%	52%	52%
100 N Washington	Zone 4	37%	49%	39%	42%	14%	35%	42%	61%	55%	55%	39%	43%	42%
100 S Lincoln	Zone 4	25%	44%	35%	41%	13%	33%	28%	43%	58%	60%	44%	45%	39%
100 S Washington	Zone 4	40%	50%	46%	43%	20%	44%	44%	46%	43%	53%	40%	56%	43%
200 E 4TH	Zone 4	17%	32%	25%	27%	5%	13%	12%	23%	33%	34%	23%	27%	22%
200 E 6TH	Zone 4	9%	9%	9%	11%	5%	8%	7%	14%	13%	13%	9%	13%	10%
200 E 7TH	Zone 4	4%	7%	5%	5%	2%	6%	3%	16%	12%	12%	6%	7%	7%
200 E Kirkwood	Zone 4	48%	63%	59%	57%	22%	52%	48%	58%	63%	70%	48%	65%	53%
200 N Lincoln	Zone 4	16%	25%	21%	23%	6%	11%	11%	15%	14%	12%	8%	8%	14%
200 N Washington	Zone 4	6%	6%	6%	5%	5%	9%	8%	14%	10%	10%	6%	9%	8%
200 S Lincoln	Zone 4	35%	46%	40%	40%	11%	24%	28%	36%	45%	38%	29%	31%	33%
200 S Washington	Zone 4	13%	26%	12%	21%	4%	7%	9%	13%	25%	21%	11%	24%	15%
300 E 4TH	Zone 4	56%	76%	64%	63%	24%	56%	57%	69%	68%	80%	61%	62%	61%
300 E 6TH	Zone 4	38%	49%	47%	43%	24%	46%	44%	47%	50%	48%	38%	43%	43%
300 E 7TH	Zone 4	7%	10%	10%	15%	4%	6%	9%	12%	14%	18%	9%	6%	10%
300 E Kirkwood	Zone 4	65%	91%	84%	74%	37%	82%	76%	90%	90%	91%	71%	83%	77%
100 N Dunn	Zone 5	83%	100%	89%	77%	39%	89%	84%	99%	98%	106%	76%	88%	85%
100 N Grant	Zone 5	72%	87%	78%	70%	37%	81%	78%	89%	91%	90%	71%	83%	76%
100 S Dunn	Zone 5	65%	84%	75%	69%	30%	74%	68%	81%	81%	84%	64%	69%	69%
100 S Grant	Zone 5	73%	75%	82%	75%	34%	75%	71%	87%	80%	89%	70%	80%	73%
100 S Indiana	Zone 5	74%	88%	85%	72%	37%	84%	89%	89%	89%	93%	69%	78%	78%
200 N Dunn	Zone 5	63%	83%	71%	72%	29%	56%	57%	73%	75%	72%	51%	53%	62%
200 N Grant	Zone 5	17%	23%	22%	19%	12%	20%	24%	27%	26%	32%	18%	20%	22%
200 S Dunn	Zone 5	52%	73%	60%	64%	20%	35%	37%	58%	57%	68%	48%	43%	51%
200 S Grant	Zone 5	40%	45%	43%	41%	22%	47%	46%	59%	53%	60%	45%	51%	45%
200 S Indiana	Zone 5	74%	90%	81%	77%	38%	76%	76%	76%	87%	82%	67%	72%	74%
400 E 4TH	Zone 5	62%	83%	72%	70%	27%	65%	64%	77%	76%	82%	62%	71%	67%
400 E 6TH	Zone 5	29%	40%	44%	36%	25%	59%	52%	55%	38%	38%	28%	37%	40%
400 E 7TH	Zone 5	19%	26%	22%	25%	12%	23%	23%	25%	32%	31%	23%	23%	23%
400 E Kirkwood	Zone 5	77%	88%	90%	75%	43%	91%	84%	93%	90%	91%	71%	88%	81%
500 E 4TH	Zone 5	75%	95%	82%	79%	36%	86%	84%	88%	91%	92%	68%	81%	79%
500 E 6TH	Zone 5	61%	83%	64%	68%	27%	53%	56%	68%	85%	93%	64%	64%	65%
500 E Kirkwood	Zone 5	72%	86%	77%	69%	35%	77%	74%	87%	85%	84%	70%	80%	74%

37.51%

Figure 25: Block-Face Occupancies by Month and Mean Block Face Occupancy.

Block-Face Financial Performance

Using the same data files provided by IPS, the Commission deduced the net financial performance of the meters by block-face by month. The Commission calculated average number of meters in use on each block face per month and the total revenue generated by block-face. By utilizing the expense reports provided by the City Controller and distributing the total expense across the average number of meters installed on each block-face, it was determined that 47 of the 96 metered blocks generated a surplus (Figure XX). The break-even block-face occupancy was calculated to be 32%. A complete set of block-face calculations is listed in Appendix XX.

Blockface	Zone	Total Revenue \$	Avg Stalls N	Weighted Mo. Avg Revenue	Operational Expense	System Expense	Staffing Expense	GF Expense	Total Expense	Block-face Net	Contribution %
300 N College	Zone 1	18,595.65	11.00	\$ 1,549.64	\$ 1,365.40	\$ 6,472.62	\$ 4,918.65	\$ 422.59	\$ 13,179.26	\$ 5,416.39	2.56%
300 N Morton ST	Zone 1	30,676.90	23.00	\$ 2,556.41	\$ 2,854.94	\$ 13,533.66	\$ 10,284.44	\$ 883.59	\$ 27,556.62	\$ 3,120.28	1.47%
400 N College	Zone 1	11,798.40	9.67	\$ 984.81	\$ 1,199.90	\$ 5,688.06	\$ 4,322.45	\$ 371.36	\$ 11,581.77	\$ 216.63	0.10%
400 N Morton ST	Zone 1	36,792.50	22.00	\$ 3,066.04	\$ 2,730.81	\$ 12,945.24	\$ 9,837.29	\$ 845.17	\$ 26,358.51	\$ 10,433.99	4.92%
100 N Morton ST	Zone 2	18,658.60	11.00	\$ 1,554.88	\$ 1,365.40	\$ 6,472.62	\$ 4,918.65	\$ 422.59	\$ 13,179.26	\$ 5,479.34	2.59%
200 N Morton ST	Zone 2	58,451.45	35.00	\$ 4,870.95	\$ 4,344.47	\$ 20,594.70	\$ 15,650.24	\$ 1,344.59	\$ 41,933.99	\$ 16,517.46	7.80%
200 W 4TH	Zone 2	18,089.75	13.00	\$ 1,507.48	\$ 1,613.66	\$ 7,649.46	\$ 5,812.94	\$ 499.42	\$ 15,575.48	\$ 2,514.27	1.19%
200 W 6TH	Zone 2	45,000.60	23.00	\$ 3,750.05	\$ 2,854.94	\$ 13,533.66	\$ 10,284.44	\$ 883.59	\$ 27,556.62	\$ 17,443.98	8.23%
200 W 7TH	Zone 2	21,389.55	13.00	\$ 1,782.46	\$ 1,613.66	\$ 7,649.46	\$ 5,812.94	\$ 499.42	\$ 15,575.48	\$ 5,814.07	2.74%
200 W Kirkwood	Zone 2	27,301.70	14.00	\$ 2,275.14	\$ 1,737.79	\$ 8,237.88	\$ 6,260.09	\$ 537.84	\$ 16,773.60	\$ 10,528.10	4.97%
300 W Kirkwood	Zone 2	17,197.15	13.00	\$ 1,455.79	\$ 1,613.66	\$ 7,649.46	\$ 5,812.94	\$ 499.42	\$ 15,575.48	\$ 1,621.67	0.77%
100 E 6TH	Zone 3	67,388.85	41.00	\$ 5,615.74	\$ 5,089.23	\$ 24,125.22	\$ 18,333.13	\$ 1,575.09	\$ 49,122.68	\$ 18,266.17	8.62%
100 E 7TH	Zone 3	20,775.15	16.00	\$ 1,731.26	\$ 1,986.04	\$ 9,414.72	\$ 7,154.39	\$ 614.67	\$ 19,169.83	\$ 1,605.32	0.76%
100 E Kirkwood	Zone 3	37,500.70	16.00	\$ 3,125.06	\$ 1,986.04	\$ 9,414.72	\$ 7,154.39	\$ 614.67	\$ 19,169.83	\$ 18,330.87	8.65%
100 N College	Zone 3	75,231.90	32.00	\$ 6,269.33	\$ 3,972.08	\$ 18,829.44	\$ 14,308.79	\$ 1,229.34	\$ 38,339.65	\$ 36,892.25	17.41%
100 N Walnut	Zone 3	67,377.95	28.00	\$ 5,614.83	\$ 3,475.57	\$ 16,475.76	\$ 12,520.19	\$ 1,075.67	\$ 33,547.19	\$ 33,830.76	15.97%
100 S College	Zone 3	29,829.90	16.00	\$ 2,485.83	\$ 1,986.04	\$ 9,414.72	\$ 7,154.39	\$ 614.67	\$ 19,169.83	\$ 10,660.07	5.03%
100 S Walnut	Zone 3	49,055.90	22.00	\$ 4,087.99	\$ 2,730.81	\$ 12,945.24	\$ 9,837.29	\$ 845.17	\$ 26,358.51	\$ 22,697.39	10.71%
100 W 4TH	Zone 3	16,097.80	11.00	\$ 1,341.48	\$ 1,365.40	\$ 6,472.62	\$ 4,918.65	\$ 422.59	\$ 13,179.26	\$ 2,918.54	1.38%
100 W 6TH	Zone 3	59,344.55	26.00	\$ 4,945.38	\$ 3,227.32	\$ 15,298.92	\$ 11,625.89	\$ 998.84	\$ 31,150.97	\$ 28,193.58	13.31%
100 W 7TH	Zone 3	30,338.45	18.00	\$ 2,528.20	\$ 2,234.30	\$ 10,591.56	\$ 8,048.69	\$ 691.50	\$ 21,566.05	\$ 8,772.40	4.14%
100 W Kirkwood	Zone 3	97,672.65	45.00	\$ 8,139.39	\$ 5,585.74	\$ 26,478.90	\$ 20,121.73	\$ 1,728.76	\$ 53,915.13	\$ 43,757.52	20.65%
200 N College	Zone 3	32,667.00	19.67	\$ 2,731.41	\$ 2,441.18	\$ 11,572.26	\$ 8,793.94	\$ 755.53	\$ 23,562.91	\$ 9,104.09	4.30%
200 N Walnut	Zone 3	34,478.20	19.00	\$ 2,873.18	\$ 2,358.42	\$ 11,179.98	\$ 8,495.84	\$ 729.92	\$ 22,764.17	\$ 11,714.03	5.53%
100 N Lincoln	Zone 4	31,711.80	18.00	\$ 2,642.65	\$ 2,234.30	\$ 10,591.56	\$ 8,048.69	\$ 691.50	\$ 21,566.05	\$ 10,145.75	4.79%
100 N Washington	Zone 4	24,310.20	17.17	\$ 2,017.87	\$ 2,130.86	\$ 10,101.21	\$ 7,676.07	\$ 659.49	\$ 20,567.63	\$ 3,742.57	1.77%
100 S Lincoln	Zone 4	19,673.10	14.75	\$ 1,643.19	\$ 1,830.88	\$ 8,679.20	\$ 6,595.46	\$ 566.65	\$ 17,672.18	\$ 2,000.92	0.94%
100 S Washington	Zone 4	23,542.30	15.92	\$ 1,963.10	\$ 1,975.70	\$ 9,365.69	\$ 7,117.13	\$ 611.47	\$ 19,069.98	\$ 4,472.32	2.11%
200 E Kirkwood	Zone 4	28,690.15	16.00	\$ 2,390.85	\$ 1,986.04	\$ 9,414.72	\$ 7,154.39	\$ 614.67	\$ 19,169.83	\$ 9,520.32	4.49%
300 E 4TH	Zone 4	18,857.30	9.00	\$ 1,571.44	\$ 1,117.15	\$ 5,295.78	\$ 4,024.35	\$ 345.75	\$ 10,783.03	\$ 8,074.27	3.81%
300 E 6TH	Zone 4	19,615.55	14.00	\$ 1,634.63	\$ 1,737.79	\$ 8,237.88	\$ 6,260.09	\$ 537.84	\$ 16,773.60	\$ 2,841.95	1.34%
300 E Kirkwood	Zone 4	38,239.15	15.33	\$ 3,195.14	\$ 1,903.29	\$ 9,022.44	\$ 6,856.29	\$ 589.06	\$ 18,371.08	\$ 19,868.07	9.38%
100 N Dunn	Zone 5	24,165.05	9.00	\$ 2,013.75	\$ 1,117.15	\$ 5,295.78	\$ 4,024.35	\$ 345.75	\$ 10,783.03	\$ 13,382.02	6.32%
100 N Grant	Zone 5	22,412.65	9.00	\$ 1,867.72	\$ 1,117.15	\$ 5,295.78	\$ 4,024.35	\$ 345.75	\$ 10,783.03	\$ 11,629.62	5.49%
100 S Dunn	Zone 5	23,179.65	9.92	\$ 1,933.61	\$ 1,230.93	\$ 5,835.17	\$ 4,434.23	\$ 380.97	\$ 11,881.30	\$ 11,298.35	5.33%
100 S Grant	Zone 5	22,140.45	9.00	\$ 1,845.04	\$ 1,117.15	\$ 5,295.78	\$ 4,024.35	\$ 345.75	\$ 10,783.03	\$ 11,357.42	5.36%
100 S Indiana	Zone 5	25,066.40	10.00	\$ 2,088.87	\$ 1,241.28	\$ 5,884.20	\$ 4,471.50	\$ 384.17	\$ 11,981.14	\$ 13,085.26	6.18%
200 N Dunn	Zone 5	18,397.55	9.00	\$ 1,533.13	\$ 1,117.15	\$ 5,295.78	\$ 4,024.35	\$ 345.75	\$ 10,783.03	\$ 7,614.52	3.59%
200 S Dunn	Zone 5	10,494.45	6.00	\$ 874.54	\$ 744.77	\$ 3,530.52	\$ 2,682.90	\$ 230.50	\$ 7,188.68	\$ 3,305.77	1.56%
200 S Grant	Zone 5	9,418.55	6.00	\$ 784.88	\$ 744.77	\$ 3,530.52	\$ 2,682.90	\$ 230.50	\$ 7,188.68	\$ 2,229.87	1.05%
200 S Indiana	Zone 5	21,451.35	9.00	\$ 1,787.61	\$ 1,117.15	\$ 5,295.78	\$ 4,024.35	\$ 345.75	\$ 10,783.03	\$ 10,668.32	5.03%
400 E 4TH	Zone 5	61,798.70	27.00	\$ 5,149.89	\$ 3,351.45	\$ 15,887.34	\$ 12,073.04	\$ 1,037.26	\$ 32,349.08	\$ 29,449.62	13.90%
400 E 6TH	Zone 5	26,197.70	20.00	\$ 2,183.14	\$ 2,482.55	\$ 11,768.40	\$ 8,942.99	\$ 768.34	\$ 23,962.28	\$ 2,235.42	1.06%
400 E Kirkwood	Zone 5	59,556.45	23.00	\$ 4,963.04	\$ 2,854.94	\$ 13,533.66	\$ 10,284.44	\$ 883.59	\$ 27,556.62	\$ 31,999.83	15.10%
500 E 4TH	Zone 5	50,679.30	20.00	\$ 4,223.28	\$ 2,482.55	\$ 11,768.40	\$ 8,942.99	\$ 768.34	\$ 23,962.28	\$ 26,717.02	12.61%
500 E 6TH	Zone 5	43,335.00	20.92	\$ 3,612.30	\$ 2,596.34	\$ 12,307.79	\$ 9,352.88	\$ 803.55	\$ 25,060.55	\$ 18,274.45	8.62%
500 E Kirkwood	Zone 5	33,609.55	14.00	\$ 2,800.80	\$ 1,737.79	\$ 8,237.88	\$ 6,260.09	\$ 537.84	\$ 16,773.60	\$ 16,835.95	7.95%

Figure 26: Block-Faces contributing to the Metered Parking surplus.

Time Purchased & Average Length of Stay

Using the IPS block-face usage data, the Commission calculated that users paid for 134,093,598.43 minutes of parking but received credit for only 112,337,888.35 minutes. The difference of 19% between payment and parking credit is due to users paying for parking outside of the normal hours of enforcement. This may indicate a need for better signage about the hours of enforcement. By examining time credited when purchased during the normal hours of enforcement, the Commission determined that the weighted-average aggregate length of stay was 61.6 minutes.

Length of stay varies by block face from a minimum average of 32.7 minutes to a maximum average of 98.0 minutes. Figure XX lists the upper and lower quartile of average length of stay by block face along with the block-face occupancy rates and the number of transactions

Lower Quartile Blocks by Average Length of Stay

Blockface	Zone	Mean BFO	Total N	Avg Length of Stay
400 N Morton ST	Zone 1	50%	35,806.00	58.1
100 N Walnut	Zone 3	77%	65,210.00	58.0
200 S Madison	Zone 2	11%	3,202.00	57.9
300 N Morton ST	Zone 1	44%	31,905.00	57.7
600 N Walnut	Zone 1	10%	3,629.00	57.4
100 E Kirkwood	Zone 3	71%	37,305.00	56.9
400 S Walnut	Zone 3	24%	5,907.00	56.6
400 E Kirkwood	Zone 5	81%	59,762.00	56.3
300 E Kirkwood	Zone 4	77%	37,995.00	56.3
200 S Lincoln	Zone 4	33%	7,998.00	55.6
200 S Grant	Zone 5	45%	9,257.00	55.5
200 N College	Zone 3	49%	32,348.00	55.5
100 N Lincoln	Zone 4	52%	32,378.00	55.1
600 N College	Zone 1	17%	17,406.00	53.9
200 W Kirkwood	Zone 2	56%	27,750.00	53.5
100 N College	Zone 3	73%	79,504.00	53.4
300 E 6TH	Zone 4	43%	21,178.00	52.1
200 W 7TH	Zone 2	57%	25,857.00	49.8
400 W 8TH	Zone 1	5%	1,202.00	49.7
400 W 7TH	Zone 2	14%	16,398.00	49.7
100 S College	Zone 3	53%	33,458.00	49.7
300 W 7TH	Zone 2	37%	24,199.00	48.7
300 S Walnut	Zone 3	17%	7,380.00	45.0
400 W 4TH	Zone 2	15%	14,788.00	40.7
300 W 6Th	Zone 2	26%	31,919.00	32.7

Upper Quartile Blocks by Average Length of Stay

Blockface	Zone	Mean BFO	Total N	Avg Length of Stay
200 S Dunn	Zone 5	51%	6,453.00	91.8
500 N Morton ST	Zone 1	31%	12,006.00	89.6
500 E 6TH	Zone 5	65%	28,087.00	89.0
200 S Indiana	Zone 5	74%	15,292.00	82.5
300 E 7TH	Zone 4	10%	4,733.00	81.3
600 N Morton ST	Zone 1	16%	11,757.00	80.2
100 W 8TH	Zone 1	14%	7,137.00	78.7
100 S Madison	Zone 2	13%	6,452.00	77.8
200 N Dunn	Zone 5	62%	13,576.00	76.4
200 W 9TH	Zone 1	25%	5,844.00	76.2
400 E 7TH	Zone 5	23%	14,519.00	75.6
100 E 4TH	Zone 3	32%	12,238.00	75.5
500 E 4TH	Zone 5	79%	38,748.00	75.2
100 N Morton ST	Zone 2	50%	13,791.00	75.1
200 S Walnut	Zone 3	22%	6,370.00	73.6
400 W Kirkwood	Zone 2	7%	1,596.00	73.3
300 W 4TH	Zone 2	35%	14,524.00	72.7
800 N MORTON	Zone 1	30%	4,156.00	72.7
200 S Washington	Zone 4	15%	1,975.00	72.5
400 E 4TH	Zone 5	67%	47,083.00	72.2
200 E 7TH	Zone 4	7%	2,117.00	71.9
200 E 4TH	Zone 4	22%	12,048.00	71.6
700 N ASHLYNN PARK	Zone 1	24%	7,598.00	71.2

Figure 27 & 28: Lower and Upper Quartile Block-Face Average Length of Stay.

Relationship between Length of Stay and Transactions and Occupancy Rates

A scatter plot of the number of transactions as a function of length of stay (Figure XX) reinforces to the idea that longer lengths of stays may lead to fewer over all transactions, however, a similar scatter plot of BFO as a function of length of stay does not negatively correlate. That is to say, longer lengths of stays are not—at this time—contributing to higher block-face occupancy rates.

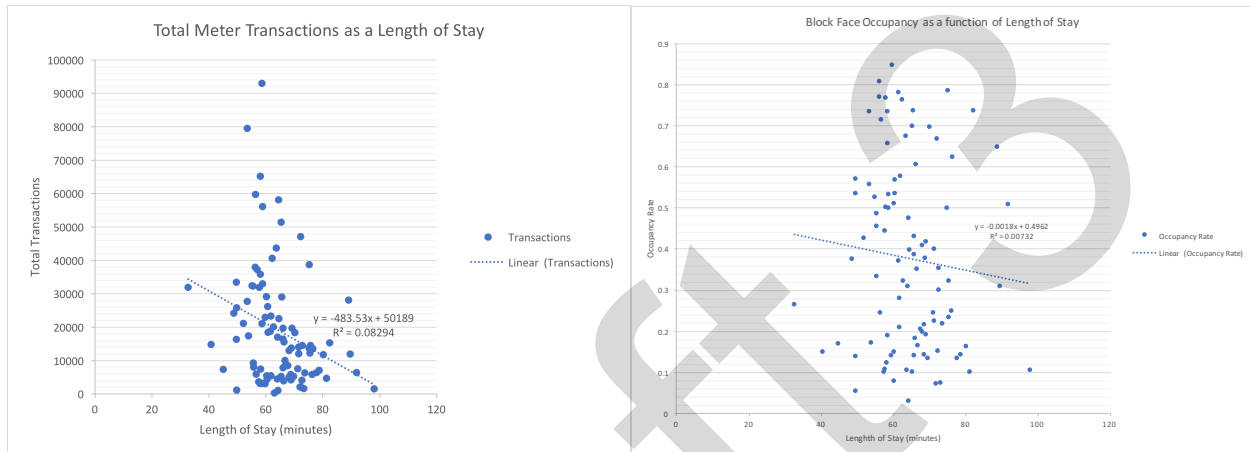


Figure 29 & 30: Scatter Plots of Meters Transactions and Occupancy Rate as a Function of Length of Stay.

Analysis of ParkMobile Transactions

Since transactions initiated in ParkMobile are not recorded by IPS, the Commission requested the complete history of ParkMobile transactions processed by users during 2016. From January to December of 2016, 94,995 transactions were initiated by 11,407 unique ParkMobile users. This number represents 5.0% of all transactions in the Metered Parking system. Although the ParkMobile user base is quite small, they are a zealous group: the top 5% of ParkMobile users accounted for 45.6% of transactions, and the top 10% of ParkMobile users account for 68.2% of all ParkMobile transactions.

ParkMobile usage data suggests that additional marketing of the availability and benefits of the platform may be warranted. 74.2% of unique ParkMobile users initiated less than five transactions during 2016; 42.8% of ParkMobile users initiated only one transaction.

When a user elected to pay for parking fees using ParkMobile, the user was charged a transaction fee ranging from \$0.30 to \$0.50 per transaction. The City did not retain any portion of the convenience fee. During 2016, users paid \$46,922 in convenience fees on parking fees of \$241,102. The top 10% of unique ParkMobile users generated 76.9% of the total revenue or \$185,420. Analysis of the data revealed that 10% of ParkMobile users paid more in

transaction fees than they received in parking credit and that 3.1% of ParkMobile users paid for parking outside the hours of enforcement.

2016 Summary of Metered Parking Metrics

- ▶ Average number of active meters: 1,480⁵²
- ▶ Annual revenue from usage, per meter: \$1499.00⁵³
- ▶ Revenue from usage, per meter per week: \$28.83⁵⁴
- ▶ Mean Block Face Occupancy rate: 37.51%⁵⁵
- ▶ Weighted-average aggregate length of stay was 61.6 minutes⁵⁶
- ▶ Annual revenue from citations, per meter: \$259.00⁵⁷
- ▶ Revenue from citations, per enforcement labor hour: \$23.94⁵⁸
- ▶ Cost of enforcement, per labor hour: \$29.74 — 24% more than citation revenue per hour⁵⁹
- ▶ Citation revenue is equal to 17.3% of parking fee revenue
- ▶ IPS Overhead 15.4% of meter transaction revenue

Metered Parking Financial Performance

Parking Meters Generated a Surplus of \$618,000

The Commission defined Operational Cash Flow as the difference between the total revenue generated by Metered Parking and the total expenses charged to the system which included staffing, lease payments and finance charges, communication contracts and other operational costs, and general-fund charges. During Fiscal 2016, the Metered Parking system produced a surplus Operational Cash Flow of \$618,142. (Figure 18). Citation revenue generated from citations issued at metered spaces were deposited in the City's General Fund, rather than the Parking Meter

⁵² Ordinance 13-03 authorized the installation of 1,539 parking meters

⁵³ Total Revenue from hourly parking divided by the 1480 metered spaces.

⁵⁴ Total Revenue from hourly parking divided by number of metered spaces divided by 52 weeks.

⁵⁵ Calculated using IPS Group transaction data files, assuming 72 hours of enforcement per week.

⁵⁶ Calculated using the IPS Group transaction data files.

⁵⁷ Rate calculations based on 1480 metered spaces.

⁵⁸ FTEs were tasked to Metered Parking enforcement. Calculation assumes 2000 hours per year, per enforcement officer.

⁵⁹ Rate derived from the Neighborhood Zone system. Actual cost is likely less, due to seniority of Neighborhood Zone officers.

Fund. Including the additional revenue from citations, Metered Parking generated a \$1 million surplus for the Parking Meter Fund. This amount will increase by nearly \$240,000 annually, once the equipment lease has been satisfied in 2017.

Figure 31: 2016 Parking Meter Zone Financial Performance.

Item	Amount
Program Balance Forward	\$ 989,527.40
Revenue	
Revenue – No Parking Signs	\$ 25,555.10
Revenue – Hourly Parking	\$ 2,218,005.77
Revenue – Convenience Fee	\$ 161,169.30
Total Revenue	\$ 2,404,730.17
Expense	
Staffing	\$ (666,774.55)
Operation Expense	\$ (185,094.97)
System-Related Expense	\$ (877,432.29)
General Fund Charges	\$ (57,286.00)
Total Expense	\$ (1,786,587.81)
Program Cash Flow	\$ 618,142.36
Other Income	\$ 711.75
Program Cash Flow	\$ 618,854.11
Fund Balance as of 12/31/16	\$ 1,608,381.51

The cash balance of the Parking Meter Fund the end of FY2016 was \$1,608,381.51. The Parking Meter Fund, which was also known as City Account 455, was a special, non-reverting fund with a specific scope defined by BMC §15.40.015. Disbursements from the fund could only be made by the Board of Public Works for the following purposes:

1. The purchase price, rental fees, and cost of installation of the parking meters;
2. The cost of maintenance, operation, and repair of the parking meters;
3. Incidental costs and expenses in the operation of the parking meters, including the cost of clerks and bookkeeping;
4. The cost of traffic signal devices used in the municipality;
5. The cost of repairing and maintaining any of the public ways, curbs, and sidewalks where the parking meters are in use, and all public ways connected with them in the municipality;

6. The cost of acquiring, by lease or purchase, suitable land for off-street parking facilities to be operated or leased by the municipality;
7. The principal and interest on bonds issued to acquire parking facilities and devices;
8. The cost of improving and maintaining land for parking purposes and purchasing, installing, and maintaining parking meters on that land; and
9. The cost of providing approved school crossing protective facilities, including the costs of purchase, maintenance, operation, and repair, and all other incidental costs.

Staffing Expense

Parking Meter Fund Pays for Crossing Guards

The City of Bloomington employed nine full-time parking enforcement officers to supervise, maintain and enforce the Metered Parking system. Two additional, full-time officers enforced regulations in neighborhood zones, and their salaries were paid from City's Alternate Transportation Fund also referred to as City account 454. A schedule of employees paid from the Parking Meter Fund, Figure 20, illustrates the variety of positions needed to manage meters. (Salary data was included in the City's response to the data request and provided to the Commission as part of the May 2017 meeting packet.)

Figure 32: 2016 Employees by Department/Job Code Paid from the Parking Meter Fund

Customer Service/Security Specialist: 1
Supervisor: 1
Asst. City Attorney: 1
Enforcement Officers: 8
Facilities Staff: 1 (retiring)
Crossing Guards: 15 (1 on leave)
Others no longer employed by City: 4

The staffing expense for Metered Parking (Figure 19) includes salaries paid to a full-time supervisor and customer service/security specialist and reimbursement to the City Legal department for services provided by an assistant City attorney. Figure

Figure 33: 2016 Parking Meter Zone Staffing Expense.

Staffing - Parking Meter Fund	Amount	Subtotal
455-26-260000-51110 Salaries and Wages - Regular	\$ 351,726.76	
455-26-260000-51120 Salaries and Wages - Temporary	\$ 60,919.60	
455-26-260000-51210 FICA	\$ 29,070.25	
455-26-260000-51220 PERF	\$ 49,945.33	
455-26-260000-51230 Health and Life Insurance	\$ 146,004.56	
455-26-260000-51240 Unemployment Compensation	\$ 729.00	
455-26-260000-53420 Worker's Comp & Risk	\$ 15,937.00	
455-26-260000-52430 Uniforms and Tools	\$ 4,989.07	
455-26-260000-53210 Telephone	\$ 7,452.98	\$ 666,774.55

A review of the City's historical citation data demonstrated that changes in staffing, staff sick-leave, and vacation schedules have a noticeable impact on the number of citations issued by parking enforcement officers. However, consistent and regular enforcement is vital tool that ensures compliance with the regulations and regular turn-over of scarce, limited parking spaces. Although the revenue from citations is an important benefit, it should not be the sole goal of parking enforcement. Figure XX illustrates a typical weekly schedule of parking enforcement officers. Although this schedule may be typical, users should expect the times, methods, and locations of enforcement to be random, to a certain extent.

Figure 34: Representative Staffing Schedule, 2016.

Postion	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Neighborhood	7:30a - 4:30 p	7:30a - 4:30 p	7:30a - 4:30 p	7:30a - 4:30 p	7:30a - 4:30 p	
Neighborhood	7:30a - 4:30 p	7:30a - 4:30 p	7:30a - 4:30 p	7:30a - 4:30 p	7:30a - 4:30 p	
Meter Collection	7:30a - 3:30 p	7:30a - 3:30 p	7:30a - 3:30 p	7:30a - 3:30 p	7:30a - 3:30 p	
Meter Technician	8:00a - 5:00p	8:00a - 5:00p	8:00a - 5:00p	8:00a - 5:00p	8:00a - 5:00p	
Lots/Downtown	7:45a - 3:45p	7:45a - 3:45p	7:45a - 3:45p	7:45a - 3:45p	7:45a - 3:45p	
Downtown Enforcement	9:00a - 5:00p	9:00a - 5:00p	9:00a - 5:00p	9:00a - 5:00p	9:00a - 5:00p	
Downtown Enforcement			9:00a - 7:00 p	9:00a - 7:00 p	9:00a - 7:00 p	9:00a - 7:00 p
Downtown Enforcement	11:00a - 9:00p	11:00a - 9:00p	11:00a - 9:00p	11:00a - 9:00p		
OPEN Downtown Enforcement	11:00a - 9:00p	11:00a - 9:00p			11:00a - 9:00p	11:00a - 9:00p
Technician / Enforcement (34 Hr)			9:00a - 5:00p	9:00a - 5:00p	9:00a - 5:00p	9:00a - 7:00 p
OPEN P.R.N. Enforcement	Part-time. No Benefits. 20 Hours per week. Scheduled as needed.					

Although not widely known by the general public, Crossing Guards' salaries have traditionally been paid by managed parking revenues even before the installation of parking meters. In Ordinance 13-03, the Common Council codified this expenditure as one of the permitted uses of the Parking Meter fund. The City Controller recorded school crossing guard salaries in account '455-26-260000-51120 Salaries and Wages - Temporary'. During 2016, the

City disbursed \$60,919.60 in Crossing Guards' salaries which was equivalent to 10% of the Metered Parking system's surplus. This benefit to the community is an example of a Business Improvement District (BID) described by Shoup.⁶⁰

Operational and System-Related Expenses

The Commission examined expenses detailed in general ledger reports provided by the Office of the City Controller. Expenses were separated into two areas: operational expense and system-related expense. Operational Expenses were categorized as departmental operating expenses while System-Related Expenses were defined as specific and particular expenses relating to the installation, up-keep and maintenance, and repair of the parking meters. Figure 21 details the Operational Expense and Figure 22 details System-Related Expenses.

Figure 35: 2016 Parking Meter Zone Operating Expense.

Metered Parking Operating Expense	Amount	Subtotal
455-26-260000-52110 Office Supplies	\$ 637.15	
455-26-260000-52240 Fuel and Oil	\$ 3,706.60	
455-26-260000-52420 Other Supplies	\$ 5,299.91	
455-26-260000-53220 Postage	\$ 10,000.00	
455-26-260000-53410 Liability / Casualty Premiums	\$ 8,103.00	
455-26-260000-53620 Motor Repairs	\$ 17,701.00	
455-26-260000-53630 Machinery and Equipment Repairs	\$ 25,187.50	
455-26-260000-53830 Bank Charges	\$ 114,459.81	\$ 185,094.97

Figure 22: FY2016 Parking Meter Zone System Related Expenses

Parking Meter Zone System-Related Expenses	Amount	Subtotal
455-26-260000-53150 Communications Contract	\$ 213,565.13	
455-26-260000-52340 Other Repairs and Maintenance	\$ 20,294.61	
455-26-260000-53310 Printing	\$ 10,599.72	
455-26-260000-53640 Hardware and Software Maintenance	\$ 66,623.33	
455-26-260000-53840 Lease Payments	\$ 473,169.14	
455-26-260000-53990 Other Services and Charges	\$ 5,603.21	
455-26-260000-54310 Improvements Other Than Building	\$ 87,577.15	\$ 877,432.29

⁶⁰ [<http://shoup.bol.ucla.edu/CruisingForParkingAccess.pdf>]

Expenses generated in the metered parking system were paid to four primary vendors:

IPS Group supplied the smart meter hardware and secure gateway to interface with T2 Flex, provided credit card processing of meter transaction

T2 Systems supplied hand-held hardware and software used by parking enforcement officers, provided backend software for asset management and reporting, provided a frontend for users to pay violations, provided license plate lookup via Rovr software

ParkMobile provide online payment solution for iOS, Android and web users of the parking system, provided access to the parking system via a convenience fee paid for by users of the parking system, processed a user's credit card, paypal or mobile-wallet transactions

First Financial underwrote the equipment lease for the City's parking meters; served as the City's primary bank; provided courier services to City Hall

IPS

After the Common Council approved the installation of meters, Public Works chose IPS Group as the meter vendor through a public RFP process. In addition to the meter hardware, IPS provided and a "secure gateway" which allowed the IPS meters interface with T2 Flex, the system used by City staff to record and process parking and citation transactions.

When users paid for parking fees using a credit or debit card, IPS added a \$0.30 convenience fee to the cost of parking. The City was charged \$0.13 by IPS Group, Inc. for every credit card processed at the single space meters. The City retained the balance of the convenience fee. Payments to IPS Group for credit cards collection fees were the largest operational expense for Metered Parking.

The IPS meter transaction file revealed \$1,827,866.65 in revenue transacted using the IPS Group, Inc. meters. 56.5% of the transactions were initiated by the use of a credit or debit card. The remaining 43.5% were coin-based. During Fiscal 2016, the City paid IPS Group, Inc. \$114,460 in fees to process \$1,032,744 in credit cards transactions—equivalent to 11% of metered parking fees. To mitigate this expense, the City charged \$0.30 per card swipe, resulting in the collection of \$161,169, an offset of \$46,700.

In addition to credit card processing fees, IPS Group charged the City a per-meter management fee of \$2.00 (\$2,992 per month, on average) and \$5,610 per month to maintain the secure gateway. Each month, the City paid IPS Group an average of \$14,800 in meter overhead. During 2016, the City paid IPS Group, Inc. a total of \$213,565 for management fees and the secure gateway. This amount included the first of four \$20,000 installment payments by City Legal for monies withheld due to concerns about meter performance. Excluding the installment payment, the cost of overhead was calculated to be 10.6% of transaction revenue.

The Commission determined that IPS Group, Inc. was paid \$281,305 or 15.4% of revenue recorded by IPS meters as system overhead. The City Controller recorded convenience fee revenue in account "455-26-260000-43490 Credit Card Convenience Fee"; costs of credit card processing were recorded as "455-26-260000-53830 Bank Charges"; management fees and gateway charges paid to IPS Group were recorded in "455-26-260000-53150 Communications Contract".

T2

As noted above, T2 provided the hand-held hardware and software used by Parking Enforcement officers and provided a back-end system for asset management and reporting, as well as, a front-end for parkers who received citations to make payment in real-time. On average, the City paid T2 \$3,231.63 per month for the Flex subscription, a fee of \$1,050 per-month for Flex hosting, and \$262.60 per-month for web-hosting (Figure 22). The City Controller recorded these costs as "455-26-260000-53640 Hardware and Software Maintenance."

Parking Enforcement maintained a database of offenders and sent notices of citations, monthly, via US mail. As part of the billing process, Parking Enforcement staff obtain the name and address registered to the owner of a license plate by performing a RovR lookup. The RovR service was provided by T2 Systems at the cost of \$1.95 per search.

The total amount paid to T2 during Fiscal 2016 as \$66,723 or 3.2% of parking fees collected. This amount includes the \$100 cost of freight charges to return units to T2 for service.

ParkMobile

An additional \$241,102 of revenue was generated by users of ParkMobile. However, fees incurred by users of the ParkMobile platform were collected ParkMobile, and ParkMobile reimbursed the City for parking time purchased by its users. The City did not retain any portion or benefit from the ParkMobile convenience fee. During Fiscal 2016, the City incurred a single, nominal overhead charge of \$1404 for meter sticker signage.

First Financial

During 2016, the City made semi-annual lease payments of \$236,584.57. Lease payments will continue through the end of 2016, after which time, the City will own the equipment. As noted above, First Financial is the City's bank

Other Expenses

Operating and system-related expenses are summarized in Figures 21 and 22, respectively. Selected System-Related Expenses are categorized by vendor in Figure 23. In February 2016, Parking Enforcement purchased a new Ford Colorado pickup truck with snow removal equipment for \$87,577.15. This purchase was recorded under "Improvements Other Than Building." BMC §15.40.015 states that the Parking Meter Fund may be used for the "... cost of repairing and maintaining any of the public ways, curbs, and sidewalks where the parking meters are in use." [Foot note: The City also contracted with private entities for snow removal in the garages, and those expenses were recorded in the Parking Facilities account.]

Figure 37: Selected System-Related Expenses categorized by Vendor, 2016

Vendor	Amount
Biller Press & Manufacturing,	\$ 2,147.00
Dri-Stick Decal Corp. (Rydin Decal)	\$ 1,506.00
First Financial Equipment Finance, LLC	\$ 473,169.00
Freedom Business Solutions	\$ 274.00
IPS Group, INC	\$ 238,690.00
Karl Clark (KC Designs)	\$ 1,060.00
KNJ, LLC (Quality Collision)	\$ 2,229.00
Midwest Color Printing, INC	\$ 994.00
OneBeacon Insurance Group	\$ 2,721.00
Paper Solutions, INC	\$ 2,445.00
Parkmobile, LLC	\$ 1,404.00
Safeguard Business Systems, INC	\$ 1,045.00
T2 Systems, INC	\$ 66,723.00

Draft #3

Chapter 6: Citations

Key Findings

Contra legem facit qui id facit quod lex prohibet. Salutantibus vitae elit libero, a pharetra augue. Pellentesque habitant morbi tristique senectus et netus.

Plura mihi bona sunt, inclinet, amari petere vellent. Paullum deliquit, ponderibus modulisque suis ratio utitur. Quam diu etiam furor iste tuus nos eludet?

Citation Metrics

- ▶ Annual Citation revenue from Metered Parking: \$383,108
- ▶ Annual revenue from citations, per meter: \$259.00⁷¹
- ▶ Annual Citation revenue from Neighborhood Zone: \$226,284
- ▶ \$23.94 of citation revenue generated per enforcement labor hour;
- ▶ \$29.74 cost per enforcement labor hour—a deficit of \$5.80 compared to the above;
- ▶ Citation revenue is equal to 17.3% of parking fee revenue
- ▶ Average citation value of \$28.90,

Citation Revenue

Violation of the parking rules in the Metered Parking, Neighborhood Zone, or Garages and Lots system results in the issuance of citations. Citation revenue generated in Garages and Lost and in the Metered Parking system were deposited into the City's general fund. Revenue from citations issued in the Neighborhood Zones was deposited into the Neighborhood Zone account, as specified by BMC §15.37.160.

Figure 38 lists the number, type and disposition of violations in the City of Bloomington's parky system.

⁷¹ Rate calculations based on 1480 metered spaces.

Citations by Violation and Status Summary

For dates beginning 1/1/2016 through 12/31/2016

Violation	Unpaid Fines	Unpaid	Zero Bal	Undr Apl	Trnsfrd	Inactive	Total	Escalated
Expired Meter - A01	\$36,300.00	1,815	12,829	0	0	342	14,986	6,747
Yellow Curb - A02	\$2,300.00	115	705	0	0	11	831	351
Overtime Parking - A03	\$1,080.00	54	250	0	0	14	318	126
Alley - A04	\$80.00	4	10	0	0	0	14	9
Loading Zone - A05	\$40.00	2	13	0	0	0	15	7
Obstruct Traffic - A06	\$60.00	3	26	0	0	0	29	15
Permits/Leased - A07	\$1,950.00	39	130	0	0	10	179	0
Backed in Space - A08	\$20.00	1	97	0	0	0	98	10
No Parking Zone - A09	\$360.00	18	144	0	0	2	164	84
Sidewalk Parking - A10	\$60.00	3	31	0	0	1	35	10
Angled Parking - A11	\$0.00	0	1	0	0	0	1	0
Left Side Parking - A12	\$0.00	0	1	0	0	0	1	0
NH-NEIGHBORHOOD PARKING	\$14,460.00	723	6,119	0	0	40	6,882	2,934
NH-PLATE NON MATCH	\$380.00	19	155	0	0	1	175	49
Fire Lane - A16	\$200.00	4	9	0	0	2	15	0
NH-Wrong Zone - A18	\$400.00	20	294	0	0	6	320	115
Here To Corner - A19	\$0.00	0	1	0	0	0	1	1
Green Permit Only - A20	\$100.00	5	39	0	0	0	44	12
Red Permit Only - A21	\$0.00	0	32	0	0	1	33	5
CFC/White Lot - A22	\$0.00	0	1	0	0	1	2	1
Expired Permit - A23	\$80.00	4	26	0	0	2	32	6
Overnight Parking - A25	\$20.00	1	0	0	0	0	1	1
Showers Permit Parking - A27	\$40.00	2	46	0	0	9	57	11
Private Parking Only - A29	\$20.00	1	3	0	0	0	4	2
City Hall Visitor Parking	\$0.00	0	5	0	0	1	6	2
Parked Facing Traffic - A31	\$860.00	43	376	0	0	3	422	116
Too Far From Curb - A33	\$40.00	2	21	0	0	0	23	9
Too Close To Intersection -A34	\$0.00	0	2	0	0	0	2	0
Electric Veh Parking Only - A35	\$20.00	1	0	0	0	0	1	1
Handicapped - A15	\$1,400.00	14	74	0	0	13	101	0
Outside Of Marked Space	\$280.00	14	183	0	0	7	204	55
NH-PARKED FACING TRAFFIC	\$720.00	36	359	0	0	9	404	146
NH-YELLOW CURB	\$700.00	35	313	0	0	3	351	158
NH-OVERTIME PARKING	\$3,280.00	164	1,154	0	0	1	1,319	632
NH-ALLEY	\$120.00	6	47	0	0	0	53	18
NH-LOADING ZONE	\$0.00	0	4	0	0	0	4	3
NH-OBSTRUCT TRAFFIC	\$60.00	3	20	0	0	1	24	7
NH-NO PARKING ZONE	\$820.00	41	263	0	0	1	305	98
NH-SIDEWALK PARKING	\$320.00	16	187	0	0	2	205	70
NH-HANDICAPPED	\$0.00	0	18	0	0	1	19	0
NH-FIRE LANE	\$200.00	4	36	0	0	0	40	0
NH-HERE TO CORNER	\$300.00	15	45	0	0	2	62	36
NH-PRIVATE PARKING ONLY	\$0.00	0	9	0	0	0	9	3
NH-OVERSIZE VEHICLE	\$0.00	0	2	0	0	0	2	0
NH-TOO FAR FROM CURB	\$120.00	6	71	0	0	0	77	30
NH-TOO CLOSE TO INTERSECTION	\$0.00	0	6	0	0	0	6	0
NH-UNAPPROVED SURFACE	\$800.00	16	139	0	0	4	159	0
BPD/White Lot	\$0.00	0	10	0	0	3	13	0
UNAPPROVED SURFACE PARKING	\$150.00	3	65	0	0	2	70	0
Reserved Parking Only	\$0.00	0	2	0	0	0	2	0
NH-ALTERED PERMIT	\$0.00	0	3	0	0	0	3	0
	\$68,140.00	3,252	24,376	0	0	495	28,123	11,880

Figure 38: 2016 Citations by Violation and Status Summary.

During 2016, revenue from citations, fees and collections totaled \$609,392. \$383,108 was generated in the Metered Parking and Garages & Lots systems while \$226,284 in citation revenue was derived from Neighborhood Zones. The cost of a citation ranged from \$20 to \$100, depending on the violation. During 2016, parking enforcement officers issued 28,123 citations. The most common violation was for overtime parking (14,896 tickets) followed by violation of the neighborhood zone regulations (6,882 tickets). In both cases, the base cost of the citation was \$20 which escalated to \$40 if unpaid after 14 days. By comparison, citations issued by Indiana University Bloomington ranged from \$25 to \$200. Citations for expired meter parking issued by Indiana University were \$25.

The goal of enforcement is not to generate revenue but to ensure compliance and turnover of a scarce and limited resource. The Commission examined the total revenue, personnel costs, and additional costs of collection to determine the break-even citation base value.

The total cost of enforcement personnel was \$720,155; \$599,195 Metered Parking Enforcement and \$118,960 for Neighborhood Zones. Additional costs associated with violations included paper tickets and envelopes, license plate look-ups using the RoVR system (\$1.95 per search), costs related to the preparation of statements, \$10,000 per year (on average) for postage, and expenses paid to T2 for software and hardware maintenance and front-end web hosting. Ancillary costs were calculated to be \$85,276.

Not all violations are paid within the 14-day grace period. City Clerk Nicole Bolden provided a "Citations by Violation and Status Summary" report from 2011 through 2015 (Appendix XX). The report tallied citations by type, the number of citations overturned on appeal, and the number of citations unpaid. It was determined that citations from expired meters accounted for 56% of the total number of citations, with 44.9% of citations escalating from a base rate of \$20 to a \$40 fine. In the Neighborhood Zone system, 39.6% of citations escalated from the base rate. The escalation rate for all citations was calculated to be 44.5%, that is to say, each citation generates an average of \$28.90 in revenue.

Some citations are never paid, and, as a result, the City incurred bad debt. The Clerk's report showed 1.52% of the citations were unpaid. Presumably, these citations were placed into collections and will be settled at a fraction of the escalated value.

The personnel costs of ancillary enforcement costs outpace revenue by \$196,039. Distributing the \$196,039 over 28,123 citation, 11,880 which escalated from \$20 to \$40, would require an increase in the base citation value from \$20 to \$24.90 in order for enforcement of the parking system to be self-liquidation.

The Commission does not specifically advocate for an increase as part of this report. However, depositing citation revenue from Metered Parking into the Parking Meter Fund rather than the General Fund—as is the practice in Neighborhood Zones; and providing a more detailed accounting of back-office support and overhead for General Fund charges would result in a more transparent reporting of parking-related expenses. Appendix 1: Key Terms & Definitions

Equity Evaluation

Perspectives and Methods for Evaluating the Equity Impacts of Transportation Decisions

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**TDM Encyclopedia**  
Victoria Transport Policy Institute

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Updated 31 August 2014

This chapter discusses general concepts of transportation equity, ways to evaluate it, and describes the specific criteria this Encyclopedia uses to rate the equity impacts of individual TDM strategies. For more detailed information on this issue see the report “Evaluating Transportation Equity” at www.vtppi.org/equity.pdf.

The Importance of Transportation Equity

Equity refers to the distribution of resources and opportunities. Transportation decisions can have significant equity impacts. Transportation represents a major portion of consumer, business and government expenditures. It consumes a significant portion of public resources, including taxes and public land. Transportation activities have external impacts (noise and air pollution, crash risk and barrier effects) that affect the quality of community and natural environments, and personal safety. Transport determines where people can live, shop, work, go to school and recreate, and their opportunities in life. Adequate mobility is essential for people to participate in society as citizens, employees, consumers and community members. It affects people’s ability to obtain education, employment, medical service and other critical goods.

The demand for mobility, and for motorized travel in particular, has increased over the last century. In previous generations, most communities were organized to allow residents to walk or bicycle to neighborhood stores, schools and recreational activities. Work trips tended to be relatively short and centralized. Now, transportation systems and land use patterns are more automobile dependent, increasing the need to travel and reducing travel choices, particularly for non-drivers (Sanchez and Brenman 2007).

“For those too young, too old, too poor or too infirm to drive, the paucity of mobility alternatives severely limits their opportunity for education and their ability to share in other essential everyday activities. Moreover, as more employers have moved to the suburbs, more jobs require car mobility.” (Johnson 1993)

As the need for mobility increases and communities become more [Automobile Dependent](#), transportation financial costs tend to increase. This may be affordable to higher income households, but it tends to impose significant financial burdens on lower income households ([Affordability](#)). A Transportation Research Board (TRB 2001) document states,

“The burden of owning and operating vehicles is increasing for the lowest-income families.

Transportation was the third-highest household expense in the 1970s; today it is the second highest. For affluent households, this change reflects personal preferences. For families with lower incomes, however, particularly those living in automobile-dominated metropolitan areas, costs for transportation compete in magnitude with those for housing. In many low-income households in low-density suburbs, 25 percent of household income is spent on transportation.”

Definitions of Transportation Equity

Equity impacts can be difficult to evaluate, in part because the word “equity” has several meanings, each with different implications. There are four general types of equity related to transportation:

1. *Egalitarianism*

This refers to treating everybody the same, regardless of who they are. Egalitarianism implies that everybody should receive the same quality of services, pay the same price, and bear the same costs. In practice, this can be arbitrary and unfair, because it depends on how impacts are measured, and does not take into account differences in abilities and needs. For example, egalitarianism might be used to justify charging every passenger pay the same fare (regardless of trip length), that each transit rider receive the same subsidy (regardless of income or need), that each resident pays the same amount or tax support transportation services (regardless of income or use), or that roads are unpriced (so everybody is stuck in traffic equally). Although each of these may seem fair and equitable from a particular perspective, they are contradictory and can increase inequity from other perspectives.

2. *Horizontal Equity (also called “fairness”)*

This is concerned with the fairness of impact allocation between individuals and groups considered comparable in ability and need. Horizontal equity implies that consumers should “get what they pay for and pay for what they get,” unless a subsidy is specifically justified. It is often cited when communities compete for transportation resources, such as state or federal funding, and is the basis for cost allocation studies that compare how the costs imposed by different vehicle classes compare with their user payments (FHWA 1997).

For example, horizontal equity suggests that roadway resources should be allocated equally to all users, so a bus carrying fifty passengers should be able to use up to fifty times as much road space as a car carrying one passenger, that pedestrians and cyclists should be protected from risks imposed by motorists, and that people who seldom or never use automobiles should avoid subsidizing motorists parking facilities.

3. *Vertical Equity With Regard to Income and Social Class*

This focuses on the allocation of costs between income and social classes. According to this definition, transport is most equitable if it provides the greatest benefit at the least cost to disadvantaged groups, therefore compensating for overall social inequity. Policies that provide a proportionally greater benefit to lower-income groups are called “progressive,” while those that make lower-income people relatively worse off are called “regressive.” For example, a tax or fee that represents a greater portion of annual expenditures for lower-income households than for higher-income households is considered regressive, while a discount that targets lower-income households is considered progressive. This definition is often used to support transport subsidies and oppose price increases.

4. *Vertical Equity With Regard to Mobility Need and Ability*

This is a measure of how well an individual’s transportation needs are met compared with others in their community. It assumes that everyone should enjoy at least a basic level of access, even if people with special needs require extra resources and subsidies. Applying this concept requires establishing a standard of [Basic Access](#). This tends to focus on two issues: access for people with disabilities, and support for transit and special mobility services.

Because of these different definitions it is important to specify which perspective is being used when evaluating transportation equity. For example, it may be unclear to simply say that a particular transportation policy or project increases or decreases equity, without indicating which type of equity is being considered.

Equity evaluation is affected by how people are grouped. Below are some categories that may be important for equity analysis:

- Income class (with special attention to very low income).
- Travel mode (walker, cyclist, transit rider, rideshare passenger, motorist, etc.).
- Gender and age.
- Ability to drive (i.e., whether or not people have access to an automobile) and type of driver (i.e., high- and low-mileage, high- and low-risk).
- Geographic location (urban, suburban or rural resident, resident within or outside a particular jurisdiction).
- Physical ability (able-bodied, people with various types and degrees of disability).
- Travel need (employed, parents with children, people with special medical needs).
- Cost bearer (i.e., degree to which a group pays taxes and fees, or bears other costs such as noise pollution or crash risk).

For example, when evaluating the equity impacts of a particular [Road Pricing](#) program it may be important to determine whether it is regressive (lower-income people pay a relatively large portion of their income); how it affects low-income workers, very low income households and people with disabilities; how it affects people who use alternative modes; which types of travelers are likely to reduce their automobile travel, what types of changes they make and what burden this imposes on them, how it affects residents of various neighborhoods, what portion of the fee is paid by people from other jurisdictions, whether the people who pay the fee benefit from better roads or reduced traffic congestion delay, and how revenues are used ([Pricing Evaluation](#)).

These factors often overlap. For example, residents of certain areas tend to be lower income or ride transit more than residents of other areas. Since politics tends to be based on geography (politicians represent residents of a particular jurisdiction), equity analysis often focuses on geographic conditions, but this is not optimal, since people’s need vary within a jurisdiction. For example, even suburban communities with high levels of automobile use and low levels of transit ridership, some residents are non-driver, while even city residents use automobiles and benefit from highways. It is therefore a mistake to assume that transit improvements are only a concern in cities, or highway improvements do not benefit urban residents.

Horizontal Equity

[Access Management](#) – Should businesses that lose direct driveway access on busy arterials be compensated?

[Transportation Planning](#) – Are alternative modes given adequate priority in transport planning, investment and management?

[Road Space Allocation](#) – Is an adequate portion of public road space allocated to alternative modes, providing a fair share of benefits to non-drivers?

[Geographic Impacts](#) – Federal, state and regional policies may favor some areas over others in terms of transportation investments and policies. What perspective should be used when evaluating these impacts?

[Road Pricing](#) – Should residents who bear a greater financial burden to drive, or experience greater congestion because they live along parallel unpriced roads be compensated?

[Market Reforms](#) – Changing transport fees and taxes may benefit some people, but disadvantage others. What changes are fair?

[Measuring Transportation](#) – How transportation is measured (per vehicle-mile, passenger-mile, per capita) often affects how equity is evaluated.

[Highway Cost Allocation](#) – The ratio between costs imposed and user taxes paid varies for different types of vehicles.

[Traffic Safety](#) – Traffic policies and practices impose different risks and responsibilities on different types of road users (pedestrians, cyclists, passengers in small cars).

[Transit Funding](#) – Should public transit service be subsidized? How much, and which type of services?

[HOV Priority](#) – Is it fair to allocate certain types of vehicles extra road space? Is it more fair than general purpose lanes, where HOV passengers are delayed by congestion as much as other vehicles, although they require less road space (and therefore contribute less to congestion) than SOV passengers.

[Nonmotorized Planning](#) – Do nondrivers receive a fair share of road space and consideration in safety planning?

[Sustainable Transportation](#) – Are impacts on future generations and distant populations given adequate consideration?

[Vehicle Costs](#) – Should vehicle charges (fuel taxes, road tolls, parking fees) be minimized to make driving more affordable to low-income motorists?

Vertical Equity With Respect to Income

[Transportation Affordability](#) – Are Transportation Options affordable to lower-income people.

[Pricing](#) – Should low-income people receive discounts for road and parking fees?

Environmental Justice – Are negative impacts such as traffic pollution and risk imposed excessively on lower-income populations?

[Economic Development](#) – Are lower-income groups given adequate transportation to access education and employment opportunities? Should economically disadvantaged areas receive extra transportation investments (roads, transit, etc.)?

Vertical Equity With Respect to Need and Ability

[Transportation Evaluation](#) – Should transportation resources be allocated equally per capita, or

based on some measure of need?

[Universal Access](#) – Does the transportation system adequately accommodate people with physical disabilities or other special needs, such as parents pushing a stroller and pedestrians pushing a handcart? Are there adequate [Parking](#) facilities for people with disabilities.

[Transit](#) – Does transit adequately provide [Basic Accessibility](#) to people who are transportation disadvantaged?

[Planning Process](#) – Are planning practices biased in favor of automobile travel and undervalue alternative modes used by disadvantaged populations? Do current transportation planning practices provide adequate public participation?

[Automobile Dependency](#) – Do current policies and practices create transportation and land use patterns that excessively disadvantage people who for any reason cannot drive an automobile?

Different types of equity objectives often conflict. For example, some people argue that roadway user fees (fuel taxes, road tolls, parking fees) should only be used for roadway improvements, on horizontal equity grounds (“consumers should get what they pay for”), but this may contradict horizontal equity objectives of providing mobility for disadvantaged people, including non-drivers, which can be achieved if a portion of user fees are spent on improving alternative modes.

Defining Basic Access

Transport equity is often evaluated in terms of a transportation system’s ability to provide [Basic Access](#) to people who are transportation disadvantaged. This section discusses these concepts. Also see [Accessibility](#) and [Evaluating Transportation Choice](#).

Basic Access

Basic Access (or Basic Mobility) means that people can obtain goods, services and activities that are considered valuable to society, such as emergency services, medical care, education, employment, food and clothing, and some recreational activities. Basic Access can also apply to services and commercial activities that support social and economic development goals. This concept has many implications for transport planning. For example, it suggests:

- Transportation subsidies may be justified for some types of trips but not others, or for a certain amount of travel.
- Transportation planning and operations may sometimes give trips that provide Basic Access priority over others that don’t.
- Transportation systems can be evaluated based on their ability to serve the most disadvantaged people under the worse conditions.
- Service and commercial vehicles may receive priority over general traffic if they support broad social or economic development objectives.

Transportation Disadvantaged

Transportation Disadvantaged refers to people who have significant unmet transportation needs (Fan and Huang 2011). The six attributes listed in the table below can contribute to a person being Transportation Disadvantaged. Somebody with just one or two of these attributes is not necessarily Transportation Disadvantaged. For example, a non-driver may have adequate transportation choices if they are physically able, live in a community with good walking and transit services, and can afford taxi and delivery services when necessary. Similarly, a wheelchair user may have adequate transportation choices if they can drive or afford a chauffeur, and live in a community that accommodates wheelchairs. However, adding one or two more attributes (for example, if a non-driver goes to an automobile-dependent community, or if a wheelchair user loses their ability to drive) can make them significantly Transportation Disadvantaged.

Table 1 Attributes That Contribute to Transportation Disadvantage

Transportation Ability	Transportation Need
<ul style="list-style-type: none"> • <i>Non-drivers.</i> People who cannot drive or do not have access to a motor vehicle. • <i>Low Income.</i> Drivers and non-drivers whose mobility is significantly constrained by financial limitations. 	<ul style="list-style-type: none"> • <i>Commuter.</i> People who must make daily trips to work or school. • <i>Caregiving Responsibilities.</i> Primary caregiver to non-driving dependents (children, elderly relatives, etc.).

· <i>Disabled.</i> People with disabilities that limit their mobility.	· <i>Automobile Dependency.</i> Lives in a community with automobile-dependent transportation and land use patterns.
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This table indicates factors that contribute to a person being transportation disadvantaged.

Below are indicators that people are transportation disadvantaged. Not everybody in each category is transportation disadvantaged under all circumstances, but these groups tend to face transportation problems.

- Households that do not own an automobile (sometimes called 0-vehicle households).
- People with significant physical disabilities.
- Low-income households.
- Low-income single-parents.
- People who are too young or old to drive.
- Recent immigrants from developing countries.

The term *Social Exclusion* is used to describe inadequate Basic Access (DETR 2000). This can include:

- *Spatially* - people have no means of access.
- *Temporally* - people cannot get to their destination at the appropriate time.
- *Financially* - people cannot afford to make the journey.
- *Personally* - people lack physical or mental capabilities to handle a means of transport.

Transportation adequacy can be evaluated in terms of:

- *Affordability* – Whether transportation options have financial costs within the targeted users' budget.
- *Availability* – Whether transportation options exist at the location and time users require.
- *Accessibility* – Whether transportation options accommodate users' physical and mental abilities, including the total journey experience (i.e., door-to-door).
- *Acceptability* – Whether transportation options are considered suitable to users.

Both Basic Access and Transportation Disadvantage reflect qualitative factors that may be difficult to measure, and values that may vary from one individual or community to another. For example, different people may have different ideas as to how far physically-able transit users should be expected walk to access a bus, or how many shopping and recreation trips people need for basic access. For this reason it is important to community members and users be involved in determining how to evaluate transportation choice ([Evaluating Transportation Choice](#)).

Transportation Equity Indicators

Transportation equity can be difficult to evaluate. There is no practical way to measure with precision the transportation needs and abilities of everybody in a community, or to predict how a particular policy or program will affect transportation equity.

Bailey (2004) uses the portion of residents who do not travel on a given day as reported in travel surveys as an indication of the number of people who are significantly transportation disadvantaged in a community. This study focused on elderly residents, but the same indicator could be used for other populations. It found that the portion of residents age 65+ who do not travel on an average day ranges from 44% up to 69%, and is affected by their ability to own an automobile, ability to drive, quality of walking conditions and transit services, and community design factors.

The relative degree to which non-drivers are disadvantaged relative to drivers can be measured using *mobility gap* analysis. A mobility gap is the different in motorized travel (automobile, public transit, taxi travel, etc.) between households that do not own an automobile (zero-vehicle households) and automobile-owning households. This can be determined using travel survey data to compare the average daily trips generated by different types of households. Since zero-vehicle households tend to be smaller and have lower employment rates than automobile-owning households, these differences should be taken into account in order to compare motor vehicle trip generation rates between comparable households with and without vehicles. After taking these factors into account, zero-vehicle households are generally found to generate 30-50% fewer personal trips. This is the mobility gap. This information can be used to calculate the additional transport services needed to provide non-drivers with comparable mobility as drivers (LSC 2001).

This approach may exaggerate real transportation “needs” to some degree, since many automobile trips are non-essential, so it may be acceptable to society that people who do not have an automobile travel significantly less than those who do. On the other hand, this methodology understates real transportation needs by assuming that households which own an automobile have no unmet mobility needs, which ignores the mobility problems facing non-drivers in vehicle-owning households. For example, a household that owns one vehicle that must be shared by two or three adults who commute to work or school, or households with an employed adult who cannot drive due to disabilities or other problems, may face a mobility gap similar to zero-vehicle households.

In many situations the most practical approach is to use indicators that represent various transportation equity objectives. This Encyclopedia uses the five indicators described below to evaluate the equity impacts of TDM strategies. Of course, they represent general trends and may not apply in all situations. Planners and decision makers can choose which of these indicators to use, and adjust ratings assigned to a particular TDM strategy, to meet the conditions and priorities of a particular planning process.

Horizontal Equity

1. Treats Everybody Equally

This indicator assumes that public policies and resources should be applied equally unless there is a specific reason for favoring a particular individual, group or activity. A policy or practice that favors one group over others of equal need and ability is considered inequitable.

2. User Pays

This indicator assumes that individuals should bear the costs they impose. TDM strategies that make prices more accurately reflect costs (such as charging users directly for using parking facilities), or that have smaller external costs than the same trip made by automobile are considered to support this criteria, while those that require increased subsidies or impose greater external costs than the same trip made by automobile are considered to contradict this criteria.

Vertical Equity

3. Progressive With Respect to Income

This indicator assumes that public policies should benefit lower-income people. A strategy that tends to make lower-income people better off overall, either absolutely or relatively to higher income people, is considered to support this criterion.

4. Benefits People Who Are Transportation Disadvantaged

This indicator assumes that public policies should provide adequate transportation to people who are transportation disadvantaged. Strategies that tend to improve mobility and access for transportation disadvantaged groups (e.g., non-drivers, people with disabilities, people who cannot afford a personal automobile, children, etc.) are considered to support this criteria.

5. Improves Basic Mobility

This indicator assumes that public policies should insure basic access, and favor travel that has high social value over travel with lower social value. For example, it suggests that emergency vehicles should have priority over general traffic, and that special efforts may be justified to insure that everybody can access critical services, education and employment, and that freight traffic and service vehicles are given priority if needed to achieve economic objectives.

Equity Summary Table

A summary table such as the one below is used to evaluate the equity impacts of each TDM strategy according to the five criteria described above. The rating system ranges from 3 (very beneficial) to –3 (very harmful). A 0 indicates no impact or mixed impacts. Of course, these ratings represent very general trends and may not apply in all situations so users should use their own judgment when applying these values.

Table 2 Equity Summary

Criteria	Rating	Comments
Treats everybody equally.		This reflects whether a strategy treats each group or individually equally.
Individuals bear the costs they impose.		This reflects whether a strategy makes individual consumers bear the costs they impose, meaning that subsidies are less than they would be with automobile travel.
Progressive with respect to		This reflects whether a strategy makes lower-income households

income.		better or worse off.
Benefits transportation disadvantaged.		This reflects whether a strategy makes people who are transportation disadvantaged better off by increasing their travel options or providing financial savings.
Improves basic mobility.		This reflects whether a strategy favors more important transport (emergency response, commuting, basic shopping) over less important transport.

Rating from 3 (very beneficial) to -3 (very harmful). A 0 indicates no impact or mixed impacts.

Measurement Units

How transportation is [Measured](#), the units used for comparison in [Evaluation](#) (such as costs per lane-mile, vehicle-mile, passenger-mile, incremental peak-period trip, etc.), and the scope of analysis can have a significant impact on equity analysis.

For example, although they seem contradictory, all of the statements below can be considered true. They reflect different perspectives and measurement units.

- Motorists pay special taxes that primarily fund the road system and transit services, and so unfairly subsidize other modes of transportation.
- Motor vehicle travel imposes the greatest external costs of all modes overall, so motorists are unfairly subsidized by non-drivers.
- Transit travel is the most subsidized transport mode per passenger-mile.
- Motorists receive more subsidy than transit users per capita.
- Rural drivers subsidize urban transportation by funding expensive urban roadways and urban transit services.
- Urban drivers subsidize rural residents by funding rural roads that receive little traffic, and therefore little fuel tax revenue.
- Higher-income people pay more taxes per capita that fund transportation facilities and services, and so subsidize lower-income people.
- Lower-income people pay more transportation taxes as a portion of their income, and travel less, and so bear an unfair portion of the costs of transportation facilities and services.
- Motorists subsidize facilities for nonmotorized modes, such as sidewalks and bicycle paths.
- Sidewalks and paths are needed because motorized traffic makes roads unsuitable for nonmotorized travel (people walk and cycle on roadways without problem in areas with minimal automobile traffic).

There is no single correct perspective or measurement unit for evaluating transportation equity, although it is often best to use per capita impacts, rather than per vehicle-mile or passenger-mile.

Equity Impacts of TDM

Most TDM help achieve equity objectives. For example, some TDM strategies:

- Increase horizontal equity (fairness) by reducing unnecessary and arbitrary policies that favor automobile transportation over other travel modes.
- Increase horizontal equity by making transportation prices more accurately reflect costs.
- Benefit lower-income people by providing direct financial savings and improving affordable transport choices.
- Benefit transportation disadvantaged people by improving transport choices and reducing the automobile external costs they must bear (such as road and parking subsidies, and uncompensated crash risk and pollution costs).
- Improve basic access by increasing transport choices and giving priority to higher value trips.

suitable combination of strategies will usually help achieve most equity objectives. Table 3 lists TDM strategies that tend to help achieve specific TDM objectives ([Increasing Equity](#)).

Table 3 TDM Strategies That Tend To Help Achieve Equity Objectives

Treats Everybody Equally	User-Pays	Benefits Lower Income	Benefits Transport Disadvantaged	Basic Mobility and Access
Institutional Reforms	Comprehensive Market Reforms	Alternative Work Schedules	Bike/Transit Integration	Access Management
Least Cost Planning	Distance-Based Fees	Carsharing	Carfree Planning	Bike/Transit Integration
Location Efficient Mortgages	Fuel Tax Increases	Commuter Financial Incentives	Commuter Financial Incentives	Freight Transport Management
Multi-Modal Level-of-Service Indicators	Parking Management	Guaranteed Ride Home	Comprehensive Market Reforms	Guaranteed Ride Home
Parking Management	Pay-As-You-Drive Insurance	HOV Priority	Guaranteed Ride Home	HOV Priority
	Parking Pricing	Improved Security	HOV Preference	Improved Security
	Road Pricing	Location Efficient Mortgages	Parking Management	Multi-Modal Level-of-Service Indicators
	Smart Growth Fiscal Reforms	New Urbanism	Improved Security	Parking Management
		Pay-As-You-Drive Insurance	Location Efficient Development	Pedestrian and Cycling Improvements
		Park & Ride	New Urbanism	Ridesharing
		Parking Management	Pedestrian and Cycling Improvements	School Trip Management
		Pedestrian and Cycling Improvements	Ridesharing	Shuttle Services
		Ridesharing	School Trip Management	Smart Growth
		School Trip Management	Shuttle Services	Taxi Service Improvements
		Shuttle Services	Smart Growth	Telework
		Smart Growth	Speed Reductions	Transit Improvements
		TDM Marketing	Street Reclaiming	Traffic Calming
		Telework	Taxi Service Improvements	Universal Design
		Transit Improvements	TDM Marketing	Vehicle Use Restrictions
		Transit Oriented Development	Telework	Emergency Response Transport Management
			Tourist Transport Management	
			Transit Improvements	
			Traffic Calming	
			Transit Oriented Development	
			Universal Design	
			Vehicle Use Restrictions	

This table lists TDM strategies that help achieve various equity objectives.

Although some TDM programs require subsidies, these can only be considered unfair if they are greater than subsidies for comparable automobile travel. Expenditures on alternative modes may simply represent an alternative way for non-drivers to receive their share of transportation resources. Even if subsidies are greater than that for automobile travel per passenger-mile, non-drivers only travel about a third as much as distance as motorists each year, and so per capita annual subsidies may be much small. Total annual per capita transportation external costs and subsidies tend to be much greater for motorists than for transit riders ([Social Benefits of Public Transit](#)).

On the other hand, there are some strategies for achieving transportation equity objectives that contradict other TDM objectives. Equity requires that lower-income people have access to affordable transportation, which in many communities means automobile transportation. For example, Raphael and Stoll (2000) and Sullivan (2003) show that in many situations automobile transportation increases employment rates and incomes among lower-income and minority workers, which justifies policies that make automobile ownership and use more affordable, including targeted loans, [Carsharing](#), and [Pay-As-You-Drive Insurance](#). Such programs may increase total vehicle travel by a small amount.

Automobile-oriented strategies to achieve transportation equity objectives may create new problems. For example, providing basic mobility to transportation-disadvantaged people in automobile-dependent communities tends to be expensive, requiring significant subsidies. With conventional vehicle insurance, making coverage affordable to high-risk motorists requires large, unfair cross-subsidies from lower-risk motorists. Free parking and low road users charges, intended to make driving more affordable, results in unfair cross-subsidies from households that drive less than average to those that drive more than average. TDM strategies can help avoid these problems, resulting in more effective solutions, financial savings, and fewer unintended consequences.

These equity benefits can be particularly large for comprehensive TDM programs that reduce market distortions, increase transportation choices, and create more balanced transportation and land use systems. This can provide significant [financial savings](#) that particularly benefit lower-income households and people who are transportation disadvantaged. Many TDM strategies help achieve equity objectives in addition to economic and social objectives ([Win-Win Transportation Solutions](#)). Implementing such “no regrets” solutions helps achieve more [Sustainable Transportation](#).

The Costs of Chauffeuring

Chauffeuring refers to additional vehicle travel required to carry a passenger, in contrast to a [rideshare trip](#) in which a passenger is carried in an otherwise empty seat in a vehicle that would be making a trip anyway, and so does not increase vehicle travel. In automobile-dependent conditions non-drivers often require significant amounts of chauffeuring: children driven to and from school, recreational and social activities; people with disabilities driven to medical appointments and shopping; and out-of-town visitors being chauffeured to and from airports or train stations, and to various activities.

Chauffeured travel is inefficient. It requires drivers’ time, increases vehicle travel (chauffeured trips often require an empty backhaul, so transporting a passenger 5 miles generates 10 miles of vehicle travel), and deprives passengers of independence.

People sometimes value chauffeuring as an opportunity to socialize, such as a time when parents can talk with their children, but it can also generate stress and conflict, such as when a driver must interrupt an important activity to fulfill chauffeuring obligations, or when a passenger or driver misses a scheduled connection. Parents often complain about the time poverty and stress of chauffeuring, and seniors with declining ability are often reluctant to giving up driving because they do not want to lose their independence or burden others for rides. Studies indicate that both time poverty and reduced independence tend to reduce people senses of wellbeing and happiness (Curie and Delbose 2010).

A diverse transport system with efficient non-automobile transport options (walking, cycling, public transit, taxi services, and telecommunications), can reduce the need for chauffeuring. More accessible land use, which minimizes travel distances, increases the portion of trips that can be made by walking, cycling and taxi. Transit-oriented development, with appropriate housing located in transit-rich areas can significantly reduce the need for chauffeuring.

Best Practices

Various reports and guides described below indicate effective ways to incorporate equity objectives in transport planning. Below are some best practice recommendations:

- Evaluate the distribution of transportation policy and program impacts by income, need, driving ability and geographic location to determine if any groups will bear an excessive burden (see methodologies in ECONorthwest and PBQD 2002).
- Consider the distribution of impacts such as the crash risk, noise and air pollution, neighborhood quality, and the barrier effect (i.e., impacts on nonmotorized travel) when evaluating transportation equity.
- Use [Accessibility Measures](#), such as the total time and financial costs to reach desired services and destinations, when evaluating transportation equity. Give consideration to the total journey experience, including walking to transit stops and destinations.
- Consider all modes when evaluating transportation equity impacts and addressing transportation equity objectives, including transit, paratransit, taxi, and nonmotorized modes. Use [Multi-Modal Level-of-Service Indicators](#) to evaluate impacts on alternative modes.
- Audit public transport demand and supply to insure that resources are deployed where they are most needed.
- In general, equity analysis should be based on per capita measurement units, rather than per vehicle or per vehicle-mile, which tends to give greater weight to higher income people who travel more, and gives far less consideration to people who are transportation disadvantaged.
- Include land use decisions, such as the location of public facilities, in transportation equity evaluation and planning.
- Consult with transportation disadvantaged people to identify their access needs, barriers and preferences.
- Involve affected communities in transportation decisions.

Examples and Case Studies

Spatial Analysis of Transportation Equity Analysis

The report, *Equity Analysis of Land Use and Transport Plans Using an Integrated Spatial Model* (Rodier, et al. 2010), used the Activity Allocation Module of the PECAS (Production, Exchange, and Consumption Allocation) Model to evaluate the equity effects of land use and transport policies intended to reduce greenhouse gas emissions.

This model was used to simulate the effects of the “Business-As-Usual” and “Preferred Blueprint” scenarios that were developed through a recent planning process for the Sacramento region into the year 2035. The PECAS model system, with its representation of the interactions among the transport system and the rest of the spatial economic system, enables an evaluation of the distributions of a wider range of economic impacts, including wages, rents, productivity, and consumer surplus, for segments of households, labor, and industry. In this study, the PECAS model is applied to illustrate the distributional measures that can be obtained from this type of model and to provide insights into the equity effects of different transport and land development patterns.

The results show that a more compact urban form designed around transit stations may reduce travel costs, wages, and housing costs by increasing accessibility, which can lead to substantial net benefits for industry categories and lower income households. Higher income households may be net losers, since their incomes are more dependent on reduced wages, they are less willing to switch to higher density dwellings, and they are more likely to own their own home.

Equitable Road Funding (Schweitzer and Taylor 2008)

Opponents of efficient road pricing, such as congestion tolls, often argue that low-income, urban residents will suffer if they must pay to use congested freeways. This contention, however, fails to consider (1) how much low-income residents already pay for transportation in taxes and fees, or (2) how much residents would pay for highway infrastructure under an alternative revenue-generating scheme, such as a sales tax. Schweitzer and Taylor compare the cost burden of road toll and a local option transportation sales tax. The analysis indicates that although the sales tax spreads the costs of transportation facilities across a large number of people, it redistributes about \$3 million in revenues from less affluent residents to those with higher incomes.

Basic Access and Basic Mobility

Meeting Society's Most Important Transportation Needs

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[TDM Encyclopedia](#)  
Victoria Transport Policy Institute  
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This chapter describes the concepts of “Basic Access” and “Basic Mobility,” which refer to transport activities that are considered socially beneficial, and how TDM strategies can help achieve Basic Accessibility.

Description

Basic Access refers to people’s ability to access goods, services and activities that society considers particularly important (also called *essential* or *lifeline*). *Basic Mobility* refers to physical travel that provides Basic Access. Basic Access typically includes:

- Emergency services (police, fire, ambulances, etc.).
- Public services and utilities.
- Health care.
- Basic food and clothing.
- Education and employment (commuting).
- Mail and package distribution.
- Freight delivery.
- A certain amount of social and recreational activities.

Basic Access recognizes that some transport activities are particularly important to society (they are considered *merit goods*), and so justifies policies that insure access to them, even if this requires giving certain transport activities priority over others (those considered less important). For example, most drivers are happy to pull over to let an ambulance or fire truck pass them in an emergency, but most probably would object if a pizza delivery vehicles also used a siren to get through congestion more quickly. Similarly, many communities subsidize demand response transit (which serve people with physical disabilities) at a relatively high rate per trip, while commuter-oriented transit trips are subsidized less, and leisure-oriented transportation services (such as shuttles from parking lots to arenas) are often expected to be self-financing.

Basic mobility typically requires the number of trips as indicated below. In some locations a significant portion of these [Accessibility](#) needs can be met by walking, but as a community becomes more [Automobile-Dependent](#) an increasing portion require motorized travel (public transit, driving or taxi). These are typical values and may not apply to everybody. For example, people who are engaged in community activities, very sociable or require special medical services may need more mobility.

	<u>Minimal Weekly Out-of-Home Trips</u>
Unemployed	2-5
Unemployed caring for children	3-6
Employed or attending school or college	5-10

Basic Access has many implications for transport planning. For example, it suggests:

- Transportation policies and management practices may [Prioritize Transportation](#) activities and investments to favor higher value trips and lower cost modes priority over lower value, higher cost trips.
- Transportation subsidies may be justified for certain transportation activities but not others.
- Transportation systems may be evaluated in terms of its ability to provide Basic Access, even under unusual or difficult conditions. That is, the system is measured based on the quality of transportation under the worst conditions (e.g., a low-income person with physical disabilities who needs to get to work) rather than under the best conditions (e.g., the convenience of air travel).
- Society may subsidize a certain amount of mobility for an individual, but not an unlimited amount.

Freedom of movement and access to certain activities and destinations are recognized in many cultural and legal traditions, and under some circumstances may be considered to be a basic human right (Hay and Trinder, 1991; Hamburg, Blair and Albright, 1995). For example, property owners may demand right-of-way through adjacent properties, and freedom to roam over rural landscapes is a well established tradition in some regions. There is no universal standard for determining exactly what transportation activities or level of [Accessibility](#) is *Basic*, and this will tend to vary depending on geographic, demographic and social factors. In [Automobile Dependent](#) areas, where economic and social activities require a high level of mobility, the amount of travel required for Basic Access tends to increase. For example, a non-driver living in an automobile dependent city may require more passenger-miles of transit or taxi travel to meet their basic access needs than if the same person lived in a more multi-modal city.

Basic Access is an important concept in Transportation Demand Management planning because TDM often involves [Prioritizing Transportation Activities](#) and rationing resources such as road and parking capacity based on specific economic or social criteria. As a result, TDM often requires explicit consideration of which transportation activities can be considered Basic Access.

There is virtually no limit to the demand for mobility: if travel were cheap enough (inexpensive, fast, safe and comfortable) people would the continent for dinner, cross the ocean for a party, and fly to the moon for a holiday. As per capita mobility increases, an increasing portion is discretionary travel that provides ever smaller net benefits to consumers. Although there are often reasons for society to subsidize (or bear external costs from) travel that provides Basic Access, there is less justification for society to subsidize lower value travel, which represents an increasing portion of total transportation activity. [Transportation Market Reforms](#) and other TDM strategies can help avoid ever-increasing economic inefficiencies from such travel.

Comparing Modes

Table 1 compares the uses of common travel modes. Each is suitable for certain applications. Walking and bicycling inexpensive, but are slow and limited by physical ability. Taxies are relatively expensive. Ridesharing requires cooperation from drivers. Transit provides mobility for non-drivers who are not very wealthy or fit.

Table 1 Suitability of Travel Modes

Mode	Non-Drivers	Poor	Handi-capped	Limitations	Most Appropriate Uses
				Requires physical ability. Limited distance and carrying capacity.	Short trips by physically able

Walking	Yes	Yes	Varies	Difficult or unsafe in some areas.	people.
Wheelchair	Yes	Yes	Yes	Requires sidewalk or path. Limited distance and carrying capacity.	Short urban trips by people with physical disabilities.
Bicycle	Yes	Yes	Varies	Requires bicycle and physical ability. Limited distance and carrying capacity.	Short to medium length trips by physically able people on suitable routes.
Taxi	Yes	Limited	Yes	Relatively high cost per mile.	Infrequent trips, short and medium distance trips.
Fixed Route Transit	Yes	Yes	Yes	Destinations and times limited.	Short to medium distance trips along busy corridors.
Paratransit	Yes	Yes	Yes	High cost and limited service.	Travel for disabled people.
Auto driver	No	Limited	Varies	Requires driving ability and automobile. High fixed costs.	Travel by people who can drive and afford an automobile.
Ridesharing (auto passenger)	Yes	Yes	Yes	Requires cooperative automobile driver. Consumes driver's time if a special trip (chauffeur).	Trips that the driver would take anyway (ridesharing). Occasional special trips (chauffeur).
Carsharing (Vehicle Rentals)	No	Limited	Varies	Requires convenient and affordable vehicle rentals services.	Occasional use by drivers who don't own an automobile.
Motorcycle	No	Limited	No	Requires riding ability and motorcycle. High fixed costs.	Travel by people who can ride and afford a motorcycle.
Telecommute	Yes	Varies	Varies	Requires equipment and skill.	Alternative to some types of trips.

Each mode is suitable for certain types of travel. None is a perfect substitute for driving.

Because non-drivers' mobility is so constrained, increasing their travel provides greater benefit than comparable increases motorists' travel. For example, a transportation improvement that increases motorized travel by one trip per week represents a 10% increase for a non-driver who otherwise only takes 10 trips per week, but only a 5% increase for drivers with comparable travel needs who currently take 20 trips per week.

Although non-drivers *on average* have relatively low mobility needs because many are retired or unemployed, there are large variations in these needs. A significant portion of non-drivers have education, employment and family care responsibilities that demand high levels of mobility. Because users have few alternatives, Nguyen-Hoanga and Yeung (2010) find that paratransit service benefits far exceed their costs.

Equity Impacts

Basic Access is an important concept for [Transportation Equity](#). By definition, Basic Access helps people meet their basic needs, such as access to emergency services, medical service and other essential goods, and it helps provide economic opportunity through access to education and employment. Transportation equity can be evaluated based on a transportation system's ability to provide Basic Access to everybody, including those who are economically, physically or socially disadvantaged.

People who can afford a car and are able to drive or can afford to hire somebody to drive them to common destinations seldom have difficulty achieving Basic Access. For example, a survey of Americans aged 65 or older found that non-drivers make 15% fewer trips to the doctor; 59% fewer shopping trips and restaurant visits; and 65% fewer trips for social, family and religious activities compared with their peers (Bailey 2004). Efforts to provide Basic Access focus primarily on people who are transportation disadvantaged, and so have significant unmet transportation needs.

Basic accessibility can be defined as land use patterns and [Transport Options](#) which allow people to travel to medical appointments, shopping, commuting to work or school, and participate in other high-value activities without excessive financial or time costs. “Excessive” can be defined as significantly higher than average: more than 20% of household expenditures or more than 1.5 hours per day devoted to transport for basic activities. A basic level of public transit service can be defined as at least one round-trip per day. Special transportation programs, such as low priced [Taxi](#) service and [Ridesharing](#) can augment transit service, but does not necessarily substitute for it.

In order to evaluate Basic Access and apply it to transportation planning it is necessary to define and rank the types of activities and services that a community considers essential or “basic.” This might include the following:

1. Emergency services (police, fire, ambulances, etc.).
2. Public services and utilities.
3. Health care.
4. Mail and package distribution.
5. Freight delivery.
6. Basic food and clothing.
7. Education and employment (commuting).
8. A certain amount of social and recreational activities.

However, it does not require that everybody enjoys the same level of mobility or convenience: that every non-driver or lower-income person must have the same level of mobility (i.e., travels as many miles each year) or quality of service (i.e. convenience and comfort) as a wealthy motorist. For example, Basic Access does not mean that a society must necessarily pay for an automobile or a taxi ride to allow a low-income person to get to work if transit service can provide access to the same destination.

Basic Access can be evaluated based on *Transportation Adequacy*, which refers to whether Transportation Options and services meet minimum standards that society considers necessary. Transportation Adequacy is affected by:

- [Affordability](#) – Whether transportation options have financial costs within the targeted users’ budget.
- *Availability* – Whether transportation options exist at the location and time users require.
- *Accessibility* – Whether transportation options accommodate users’ abilities, including people with disabilities and special needs ([Universal Design](#)), taking into account the total journey (i.e., door-to-door).
- *Acceptability* – Whether transportation options are considered suitable to users.

What is considered adequate reflects geographic and demographic factors, as well as values and perspectives that may vary from one individual or community to another. For example, different people may have different ideas as to how far physically-able transit users should be expected walk to access a bus, or how many shopping and recreation trips people need for basic access. For this reason it is important to involve public officials, community members and users in evaluating Basic Access and developing Basic Access plans and programs.

Basic Access requires that essential public services be provided even during [Disasters](#) or other periods of stress, that people are able to reach basic activities and services even if they have economic or physically constraints, and that economic activities be supported by efficient transportation systems even during

periods of uncertainty and change. This requires determining the worst combination of conditions that are likely to occur, and identifying suitable responses ([Evaluating Resilience](#)).

Table 2 summarizes various categories of benefits from Basic Mobility and Accessibility, and suggests ways of evaluating these impacts.

Table 2 Categories of Basic Mobility and Accessibility Benefits

Category	Description	How To Measured
User Benefits	Direct user benefits from the additional mobility provided by public transit.	Rider surveys to determine the degree that users depend on transit, the types of trips they make, and the value they place on this mobility.
Public Service Support	Supports public services and reduces government agency costs.	Consultation with public agency officials, and surveys of clients, to determine the role transit provides in supporting public service goals.
Increased productivity	Increased education and employment participation by non-drivers.	Survey transit users to determine the portion that rely on transit for education and employment.
Reduced high risk drivers	Inadequate travel options force high risk motorists to continue driving and prevent society from revoking driving privileges.	Survey experts and the public to determine whether inadequate travel options are increasing the amount of high risk driving.
Equity	Degree to which transit helps achieve equity objectives such as basic mobility for physically, economically and socially disadvantaged people.	Portion of transit users who are economically, socially or physically disadvantaged, the importance of mobility in ameliorating these inequities, and the value that society places on increased equity.
Option Value	Benefits of having mobility options available in case it is ever needed.	Transit service coverage, ability of transit to serve in emergencies, the value that society places on mobility insurance. EcoNorthwest and PBQD (2002) describe ways to quantify transit option value.

Public transit provides several types of mobility benefits. These are affected by the degree that transit service is available to non-drivers, and the amount of increased mobility it provides.

Related Chapters

For more information on issues related to Basic Access see [Evaluating Equity](#), [Accessibility](#), [Evaluating Transportation Choice](#), [Community Livability](#), [TDM Planning](#), [Measuring Transportation](#), and [Sustainable Transportation and TDM](#).

Examples

Rural Public Transportation (Oluwoye and Gooding 2006)

A survey of rural Alabama transit riders found that the largest portion of transit trips were for medical purposes, accounting for 63% of all trips, 18% of trips where for other purposes, and 9.1% were for work and education. Of riders who use public transit for commuting, 36% indicate that they would be unable to work if the service were unavailable. Overall, the survey indicates that these services, although limited, provide basic mobility for people who have no other options, especially elderly and disabled residents, and that inadequate rural transit services leads to increased dependence on home healthcare.

Fairness in a Car Dependent Society (www.sd-commission.org.uk/pages/fairness-in-a-car-dependent-society.html)

The U.K. Sustainable Development Commission (SDC 2011) commissioned a study that analyzes the costs of car dependency and ways to ensure that the decisions we make about future transport priorities help minimise the negative impacts on everyone. It concludes that a new approach to national transport policy is needed which

achieves a better balance between potentially conflicting rights and freedoms in a way that is equitable for both this and future generations and, which respects environmental limits. This approach must recognise that transport planning decisions have significant indirect and external impacts, and so should consider effects on all members of society, not just motorists.

Community Ridesharing (Kishi and Satoh 2007)

A survey of residents in Naganuma Town, Japan finds relatively high willingness to provide rides to senior non-drivers in areas not served by public transit, particularly if drivers are financially compensated. Concerns about accident risk liability is a deterrent.

Transportation Affordability Evaluation Framework (Fan and Huang 2011)

This research project developed a contextualized transportation affordability analysis framework that accounts for the different demands and abilities of various demographic and geographic groups. The utility of such a context-sensitive framework is demonstrated via a case study of the Twin Cities metropolitan area, which discusses the quality of access in different geographic areas and measures the transportation financial and time costs of various demographic groups. This analysis indicates that socio-economically disadvantaged groups, such as lower-income working parents, have the lowest auto ownership rate, yet their mobility needs are best served by automobiles, particularly in auto-oriented locations, which require more travel for access to destinations, which leads to higher transportation costs. The researchers conclude that improving transportation affordability and social welfare requires a combination of reduced automobile dependence and financial subsidies for car access among disadvantaged populations.

Automobile Ownership and Travel By Low-Income Households

Analyzing the 2009 U.S. National Household Travel Survey, Blumenberg and Pierce (2012) identified factors that affect vehicle ownership and passenger travel, including income, age, gender, race-ethnicity, employment status (student, work, retiree, homemaker), children in household, geographic location (density and urban region), vehicle insurance costs and vehicle ownership (as it affects personal travel). The results indicated that low-income households are less likely to own cars and more likely to travel by modes other than the automobile. As household incomes rise from low to medium levels, vehicle ownership and travel tend to increase proportionately faster than incomes. Vehicle ownership and travel increase for workers and if a household has children, decline with land use density.

Right To Basic Transport (KOTI 2011)

Korea recognizes the right to basic transportation, which includes the right to move freely, conveniently and safely, the freedom to choose transport modes, the right to transport cargo, and the right to gain access to transport information regardless of economic, physical, social and regional barriers. It is a right based on the citizens' basic rights stipulated in the Korean Constitution such as freedom of residence and movement, freedom of occupation, assurance regarding human dignity and worth. Korean planners are developing minimum service policies based on indices and criteria to implement these rights within practical resource constraints.

Welfare to Work (Lucas and Tyler 2006)

A number of studies indicate that inadequate mobility is often a significant constraint on employment and career advancement by disadvantaged people, such as people with disabilities, lower-income workers in general, and people transitioning from welfare dependency to employment. Welfare-to-work programs often include various

components to improve mobility options, including public transit subsidies, carsharing, and support to purchase private vehicles.

Yi (2006) found that job accessibility by public transit have significant impacts on employment levels in Houston, Texas. Although the private mobility also appears significant for improving employment status of the economically disadvantaged, job accessibility by public transit has stronger effect in increasing the levels of employment than private vehicles. This study defies the contention that public transit is helpless for the underprivileged of the society.

Transit Access (Tomer, et al. 2011)

The Brookings Metropolitan Policy Program developed a detailed database of transit service and demographic data in the nation's 100 largest metropolitan areas which can be used to measure transit access for various demographic groups. This quantifies the portion of residents within convenient walking distance of transit services, the frequency of that transit service, and the portion of jobs within 90-minute maximum transit trip for residents, as indicators of a transit system's ability to provide basic mobility for non-drivers in a particular area. The results reveal considerable variation in transit coverage and service levels, and transit's ability to connect workers to the types of jobs they are most likely to hold. The results indicate that more compact and transit-oriented cities and neighborhoods provide much better transit access to employment than more sprawled, automobile-oriented cities and neighborhoods.

Incorporating Social Justice Into Transport Modeling (Martens 2006)

Researcher Karel Martens argues that current transport evaluation practices exaggerate the benefits of automobile-oriented improvements and undervalue improvements to alternative modes, because they are based on *demand* (the amount of transport that people can afford) rather than *need* (the amount of transport that people need to access basic services and activities). To correct these biases he recommends the following changes to transportation modeling and economic evaluation techniques:

- Evaluate transport improvements primarily in terms of *accessibility* rather than *mobility*. For example, improvements should be rated based on the number of public services and jobs accessible to people, taking into account their ability (i.e., ability to walk and drive), travel time and financial budgets, not simply travel time savings to vehicle travelers. This recognizes the value of non-automobile modes (walking, cycling, public transit and telecommuting) and land use improvements (such as more compact and transit-oriented development) to improve accessibility and achieve transport planning objectives.
- The monetary value assigned to accessibility gains should be inversely related to people's current levels of accessibility to reflect the principle of diminishing marginal benefits. In other words, accessibility gains for the mobility-poor (who travel lower annual miles) should receive higher monetary value than for mobility-rich (high annual mile travelers), because accessibility-constrained people tend to gain relatively more from a given transportation improvement. This means that travel time savings for mobility-poor people should be valued higher than for the mobility-rich.

Missed Medical Appointments

Wallace, et al. (2005) analyzed the *2002 National Health Interview Survey* to evaluate the degree to which inadequate transportation is a constraint to non-emergency medical services. They estimate that 1.3% of the U.S. population misses non-emergency medical appointments due to mobility constraints. People who rely on public transit are most likely to miss appointments. The study concludes that improving transport to medical services is likely to be a cost effective public investment.

Wit and Humor

A guy walks into a bar with both ears bandaged up, and orders a stiff drink. Other patrons can't withhold their curiosity, and after a few minutes one asks, "Hey buddy, what happened to your ears?"

He replies, "Yesterday I was ironing a shirt when the telephone rang and (holding his fist near his ear) shhh! I accidentally answered the iron."

The other patrons shake their heads sympathetically, and after a pause somebody asks, "That explains one ear, but what happened to the other one?"

He says, "Well, jeez, I had to call an ambulance!"

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Planning and Transportation Department

**Downtown Area Parking Study
*REQUEST FOR PROPOSALS***

ISSUED:

September 1, 2017

DEADLINE FOR PROPOSALS:

September September 25, 2017
12:00 PM Eastern Daylight Time

SUBMIT PROPOSALS TO:

Terri Porter, Director
Planning & Transportation Department
porteti@bloomington.in.gov

GENERAL INFORMATION AND SUMMARY

Organization Requesting Proposals:

City of Bloomington
Planning and Transportation Department
401 N. Morton St, Suite 130
Bloomington, Indiana 47404

Contact:

Scott Robinson, AICP
Planning Services Manager
robinsos@bloomington.in.gov
812-349-3423

Summary of Request:

The City of Bloomington (the City) is issuing a Request for Proposals (RFP) to select a consultant (or team of consultants) to assist in the assessment of public parking assets within the downtown Bloomington area. The assessment will include the management, regulatory, and fiscal aspects of the public parking system, including structures, surface lots, meters and on-street parking, and make recommendations on anticipated near-term and longer-term needs. Analysis of private development parking standards, adjacent neighborhood parking controls and inventory, as well as private and other public agency parking assets should also be considered as part of near-term and longer-term strategies. The City will soon initiate an update to the Unified Development Ordinance (UDO) which includes details for private parking requirements on new development proposals. The timing of this request is complimentary to the update of the UDO with regards to only the parking standards within the downtown area. Completing a thorough assessment of current downtown parking assets and the management of those assets will better assist the City and community on meeting current, near-term, and longer-term parking needs. Interested parties must submit proposals electronically by Monday, September 25, at 12:00 PM local time (EDT).

Communications and Project Management:

The project will be managed by the City's Planning and Transportation Department with the support of a team of staff primarily from the Public Works, Police, and Economic and Sustainable Development departments. All communications from interested parties to the City during the proposal submittal process shall be made to Scott Robinson at robinsos@bloomington.in.gov or 812-349-3423.

If necessary, interpretation of or changes to this RFP may be made by written addendum. A copy of each addendum will be posted at the City’s website at <https://bloomington.in.gov/planning/bids> no later than September 18, 2017. Interested parties are responsible for checking the City’s website for addenda, though the City may choose to contact all known interested parties with notification of posted addenda. The City will not be responsible for any other explanations or interpretations of this RFP. If significant changes to this RFP are required, the City may postpone the final date for submission through an addendum.

Interested parties may notify the City via email of their intent to submit a proposal but are not required to do so. Failure to notify the City of intent to submit a response may result in omission from future communications including possible notification of addenda.

Proposals must be submitted in pdf format no later than September 25, 2017. Responses which, in the judgment of the City, are in any way incomplete, inaccurate, or otherwise not in compliance with the requirements described in this RFP will be rejected.

Any costs incurred while responding to this RFP in anticipation of receiving a contract award shall be the responsibility of the entity submitting the response. The City shall not reimburse any respondent for any such expenses.

Process Schedule:

September 1, 2017	RFP Advertisement
September 18, 2017	Last Day for Addenda Posted by the City
September 25, 2017 (12:00pm EDT)	Proposal Deadline
September 26 – October 5, 2017*	Response Evaluation
October 6, 2017*	Notify Respondents of Results and Begin Discussions with Selected Respondent
October 20, 2017*	Issue Notice to Proceed (NTP) to Selected Respondent

**Dates indicated are tentative and subject to change as needed*

PROJECT DETAILS

Overview:

The City has completed two prior parking studies for the Downtown area (2007 and 2012). The purpose of this study is to provide a continuum of best management strategies to consider for the greater Downtown Bloomington area in regards to the many aspects of public parking. The study must consider key aspects of a new comprehensive plan that is expected to be approved later this year. The Comprehensive Plan provides additional guidance on the growth, development, and services within the Downtown. The City and Monroe County are both actively pursuing economic development initiatives within the Trades District and the Bloomington/Monroe County Convention Center, respectively. Parking is an important element for these initiatives, requiring collaboration and coordination on parking management strategies. Finally, the City has established a Parking Commission that is charged with, amongst other duties, producing an annual report on the City's parking system. Their first report is expected this October. This study must provide overall consistency in the assessment of these aspects and the objectives listed below with both short-term and long-term strategies and recommendations to consider.

Objectives:

The following objectives should be considered as part of this downtown parking study:

- Assess the public parking capacity (City parking garages and lots, on-street parking, zones 4, 5, 8, 9, and 10), and projected near-term and longer-term needs. The study will include one month of occupancy counts during peak business hours, afternoon and evening.
- Assess fiscal revenues and expenditures and provide strategies that sustain the fiscal stability of the public parking system. Provide multiple rate and fee structures and display, by line, the effect of each rate and fee band on revenues and projected growth/decrease in usage of parking services..
- Assess the ongoing maintenance of the parking system and key long-term investment needs to sustain the parking system.
- Assess the enforcement and education of the parking systems and strategies to optimize effective enforcement and education activities of the parking system.
- Assess parking permits (types, fees, etc.) and strategies to optimize efficient permit utilization rates.

- Assess garage transient parking rate and fee structure and provide multiple recommendations, by line, the effect of each rate band change on revenues and projected growth/decrease in usage of parking services
- Assess standardization methods for payments, times, and other functions to improve efficiency, understanding, and enforcement of all parking facilities.
- Assess all parking zones and strategies consistent with best practices for university/college towns/cities.
- Identify interim strategies, such as public-private partnerships or shared parking agreements, that can augment the supply of public parking within the Downtown.
- Assess the Trades District and the Bloomington/Monroe County Convention Center and identify key performance indicators for strategic implementation of public parking investments.
- Provide recommendations that promote a multi-modal transportation system.
- Provide recommendations that promote a sustainable built and natural environment.
- Provide recommendations that promote the incorporation of public spaces and art in public parking facilities.
- Provide recommendations that help preserve the character of adjacent downtown neighborhoods and historic districts.

The City would like to complete the parking study in approximately three months. The process should involve public participation, stakeholders, data collection, data and policy analysis, and other tasks identified by the proposal necessary to complete the study. A draft report must be presented to the Parking Commission by the firm with the purpose of feedback so key items identified can be further considered before a final report is submitted to the City.

This RFP is open to any individual/firm wishing to submit a proposal.

Proposed Budget Requirements:

Proposals shall provide a detailed budget proposal for core or essential tasks identified. Any additional services that can be provided as optional services must be explicitly labeled, as optional services, and may be proposed. The proposed budget will provide information on cost effective approaches for the City to consider. The proposed budget is one of several factors used in the evaluation and selection of consultants submitting proposals and may be used when negotiating a contract.

PROPOSAL SUBMITTAL REQUIREMENTS:

General Requirements:

Submissions must be prepared electronically using 8.5" x 11" paper format and must be submitted as a single pdf file. File size may not exceed 10MB. **Submissions are strictly limited to a maximum of 10 total pages (total includes the submittal form).** Additional pages such as cover pages, tables of contents, appendices, etc., will be counted towards the 10 page maximum. Any page beyond page 10 will be omitted for consideration. The following table displays the order in which respondents shall arrange content and a suggested number of pages per category.

Order	Proposal Content	Suggested Number of Pages
1	Submittal Form	1
2	Introductory Letter	1
3	Project Team and Structure	2
4	Relevant Project Experience and Outcome/Status	2
5	Project Approach	3
6	Detailed Project Schedule	1
	Maximum Total	10 pages

Submissions must be emailed to Scott Robinson at robinsos@bloomington.in.gov. Submissions received after 12:00PM local time on September 25, 2017 will not be considered.

Content Details:

Proposals should include all of the information required below.

1) Submittal Form

- Complete and sign the Submittal Form attached to this document.
- The content of this form shall not be modified other than to fill in the required information.

2) Introductory Letter

- Name of the individual or firm.
- Contact information for the person authorized to serve as point of contact during the RFP evaluation process and to negotiate on behalf of the firm or team if selected for projects.
- General statement of interest and availability for the project described in this RFP.

3) Project Team and Structure

- Identification, qualifications, expertise, and availability of the project manager and key staff proposed to be assigned to the project.
- Identification of proposed subconsultants for any tasks not to be completed by the prime consultant and the type and percentage of work each subconsultant will complete.
- Relevant information regarding team organization or leadership in place to ensure efficiency and accountability during the course of the project as well as quality control and schedule control.
- Location of all project team members and their applicable licensure and certifications.
- Knowledge of and experience with pertinent federal, state, and local laws, regulations, and policies.
- Disadvantaged Business Enterprise (DBE) or other relevant certifications.

4) Relevant Project Experience

- Specific examples of projects that are relevant and similar to this project (provide a link to the project, a reference name and contact information for the clients of these projects).
- Identification of which key personnel were responsible for the relevant tasks.
- Experience with college/university town contexts and public engagement and public education processes.
- Experience with data collection, data analysis, disruptive technology analysis, and key implementation benchmarks/assessments/benefit-cost.
- Experience with multimodal transportation planning.
- Experience with effective public education .

5) Project Approach:

- Description of project approach and deliverables.

- Timeline with proposed milestones (e.g. public engagement, data collection, draft report, final report, and other proposed key milestones).
- Assume a two to three month process from Notice to Proceed to final report delivery.
- Assume internal draft, public draft, and final draft reports with a minimum of two rounds of revisions (one after internal draft and one after public draft).
- Specific examples of potential challenges and strategies for successfully dealing with those challenges.
- Description of innovative ideas or strategies for project prioritization and project implementation.
- Discussion of budget and any anticipated expenses above that budget.
- Other relevant information related to project approach.

6) Public Participation and Education Plan:

Briefly describe the role of public participation in the development of the study and the types of approaches necessary for ongoing public education (public relations). Outline a public participation proposal for this process and methodologies utilized. Identify any tasks for which the City would be responsible for completing during the process.

SELECTION CRITERIA & EVALUATION

Consultant selection for this project will be based on an evaluation of the proposals. The City reserves the right to request additional information or to reject all proposals and not select a consultant. The Consultant Selection Rating Form used to evaluate and score the submittals is included in this RFP for reference.

ATTACHMENTS

1. Submittal Form

Submittal Form

The undersigned declares that the Proposal submitted in response to the Downtown Area Parking Study Request for Proposals (RFP) advertised on September 1, 2017 is, in all respects, an accurate and true representation of the Individual's/Firm's/Project Team's Experience and Qualifications. The undersigned further acknowledges that the Proposal submitted is absent any collusion with an employee/official of the City of Bloomington. The undersigned acknowledges they reviewed and are familiar with the City of Bloomington RFP documents issued on September 1, 2017, and they acknowledge their responsibility for checking the City website for any addenda to this RFP and incorporating or responding to information presented in such addenda as necessary.

If any omissions, erasures, and/or alterations (collectively "modifications") are required to be made to the Proposal Documents, the undersigned acknowledges that they have carefully examined the modifications to the Proposal Documents submitted by the Individual or Firm, and have approved all such modifications. If said modifications are handwritten, the modifications must be initialed. The undersigned further acknowledges that the individual initialing any such modifications has authorization to do so on behalf of the Individual, Firm, or Team.

Individual/Primary Firm Name:

Firm Representative Name:

Authorized Signature:

Title: _____

Date: _____

Address:

City: _____ State: _____ Zip: _____

E-Mail: _____

Telephone: _____



MEMORANDUM

To: Parking Commission
 From: SeyedAmir Kaboli Farshchi, Long Range Planning
 Date: September 8, 2017
 Re: On-Street Parking, Neighborhood Parking Zones

Background

The Parking Commission requests a general assessment of available on-street parking for the Neighborhood Parking Zones. Staff first conducted an assessment of zone 10 as a trial before doing other zones and is seeking feedback. General parking number for each block was measured and calculated through the use of Google Maps, Google Earth, and GIS according to the following rules:

- Typical parking space length is 22'.
- Driveways, alleys, and corners/intersections should not be included.
- Residential Neighborhood Parking shall apply to the following streets in Zone 10:

Street	From	To	Side of Street
Eighth Street	Maple Street	Rogers Street	North
Eighth Street	Rogers Street	Fairview Street	South
Fairview Street	Eighth Street	Ninth Street	East
Fairview Street	Seventh Street	Eighth Street	West
Jackson Street	Eighth Street	Ninth Street	East
Jackson Street	Sixth Street	Seventh Street	West
Ninth Street	Maple Street	Jackson Street	South
Seventh Street	42' West of Rogers	142' West of Rogers	North
Seventh Street	Maple Street	Rogers Street	South
Sixth Street	Maple Street	Rogers Street	North/South

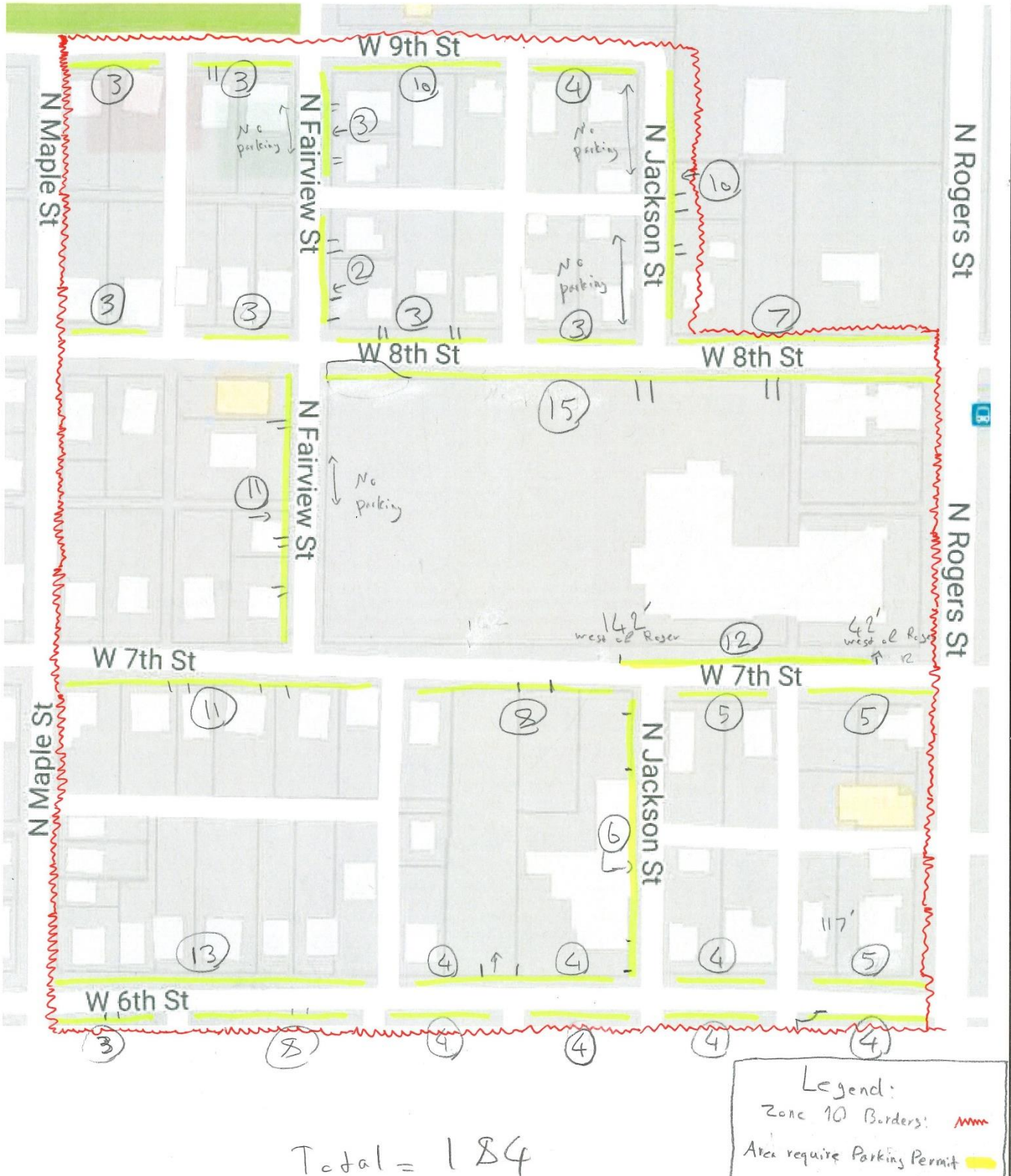
The total number of available on-street parking within Zone 10 is approximately 184 parking spots.

- Permits sold in Zone 10 in from 01/01/2016 to 12/31/2016:

Type of Permit	Number of Permits sold	Total Revenue
Temporary Zone 10	7	\$75.00
Temporary Zone 10 Construction	1	\$10.00
Zone 10 Permit	49	\$1150.00
Zone 10 Visitor	16	\$400.00

- Enclosed are the GIS map of Zone 10 and surrounded areas as well as the Google map of zone 10 with the number of on-street parking that requires Neighborhood Parking permit in each section.

Zone 10 Neighborhood Parking Counts



Parkmobile, 2016

Total transactions Jan-Dec 2016: 94,995

Total unique users Jan-Dec 2016: 11,407

Top 50 unique users account for 10% of all transactions

Top 5% of unique users account for 45.6% of all transactions

Top 10% of unique users account for 68.2% of all transactions

4,888 of 11,407 unique users (42.8%) initiated only one transaction using parkmobile.

8,460 of 11,407 unique users (74.2%) initiated 5 or fewer transactions using parkmobile.

\$241,102.20 in parking fees generated by ParkMobile

\$46,921.50 in transaction fees generated by ParkMobile

\$136,028.30 in parking fees (56.4%) generated by the top 5% of unique users

\$185,419.60 in parking fees (76.9%) generated by the top 10% of unique users

\$39,658.05 in parking fees (16.4%) generated by the top 50 unique users

10.3% of users paid more in transactions fees than they received in parking credit.

3.1% of unique users received no credit for parking time but were still charged a transaction fee.

Average annual usage: \$21.14 in parking fees; \$4.11 in transaction fees; 8.32 average transactions.

Blockface	Zone	Jan Park Occ	Feb Park Occ	Mar Park Occ	Apr Park Occ	May Park Occ	Jun Park Occ	Jul Park Occ	Aug Park Occ	Sep Park Occ	Oct Park Occ	Nov Park Occ	Dec Park Occ	Mean BFO
100 W 8TH	Zone 1	12%	16%	13%	18%	5%	8%	9%	24%	24%	25%	10%	9%	14%
100 W 9TH	Zone 1	18%	18%	16%	17%	8%	21%	15%	23%	38%	42%	22%	16%	21%
200 W 11TH	Zone 1	20%	24%	20%	24%	5%	11%	10%	24%	26%	30%	18%	20%	19%
200 W 8TH	Zone 1	8%	6%	9%	13%	2%	6%	7%	17%	17%	16%	9%	15%	10%
200 W 9TH	Zone 1	25%	28%	19%	27%	9%	19%	17%	48%	32%	34%	22%	17%	25%
300 N College	Zone 1	55%	66%	62%	60%	31%	64%	52%	69%	67%	61%	48%	55%	57%
300 N Morton ST	Zone 1	41%	47%	40%	46%	23%	40%	47%	55%	56%	55%	45%	43%	44%
300 N Walnut	Zone 1	29%	38%	35%	31%	11%	25%	21%	32%	32%	36%	22%	29%	28%
300 W 11TH	Zone 1	29%	37%	50%	40%	18%	33%	31%	31%	27%	32%	22%	26%	31%
300 W 12TH	Zone 1	12%	20%	21%	23%	5%	14%	10%	11%	15%	14%	7%	9%	13%
400 N College	Zone 1	38%	40%	33%	40%	14%	32%	36%	42%	39%	45%	33%	34%	35%
400 N Morton ST	Zone 1	46%	49%	52%	52%	25%	52%	57%	66%	56%	61%	46%	47%	50%
400 N Walnut	Zone 1	22%	25%	16%	17%	8%	13%	15%	18%	37%	34%	19%	13%	20%
400 W 11TH	Zone 1	18%	39%	44%	26%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	32%
400 W 8TH	Zone 1	2%	5%	5%	12%	5%	8%	9%	4%	7%	7%	4%	3%	5%
500 N College	Zone 1	18%	24%	16%	20%	5%	15%	18%	39%	27%	29%	18%	17%	20%
500 N Morton ST	Zone 1	20%	22%	29%	34%	22%	37%	48%	57%	34%	31%	21%	16%	31%
500 N Morton St - Permit	Zone 1	13%	19%	13%	21%	7%	15%	20%	21%	15%	17%	10%	5%	15%
500 N Walnut	Zone 1	13%	16%	12%	11%	6%	25%	21%	21%	28%	29%	21%	19%	18%
600 N College	Zone 1	15%	18%	16%	16%	7%	15%	14%	24%	22%	25%	15%	17%	17%
600 N Morton ST	Zone 1	12%	16%	13%	18%	6%	16%	15%	35%	23%	19%	11%	10%	16%
600 N Walnut	Zone 1	10%	7%	8%	9%	4%	9%	9%	11%	15%	17%	13%	10%	10%
700 N ASHLYNN PARK	Zone 1	19%	34%	51%	42%	13%	25%	19%	24%	21%	19%	12%	15%	24%
700 N MORTON	Zone 1	14%	21%	18%	22%	5%	12%	12%	17%	19%	17%	7%	9%	14%
800 N MORTON	Zone 1	11%	11%	11%	0%	0%	1%	0%	0%	0%	0%	0%	0%	9%
100 N Madison	Zone 2	10%	14%	9%	12%	4%	10%	12%	12%	14%	13%	10%	10%	10%
100 N Morton ST	Zone 2	50%	55%	52%	50%	25%	54%	59%	56%	55%	58%	42%	49%	50%
100 S Madison	Zone 2	11%	15%	16%	16%	6%	16%	18%	14%	14%	15%	8%	12%	13%
200 N Madison	Zone 2	15%	16%	12%	11%	8%	19%	15%	19%	21%	23%	20%	21%	16%
200 N Morton ST	Zone 2	45%	56%	49%	49%	25%	58%	56%	60%	56%	61%	44%	48%	50%
200 S Madison	Zone 2	5%	8%	13%	13%	4%	12%	16%	11%	9%	13%	13%	12%	11%
200 W 4TH	Zone 2	42%	49%	45%	37%	20%	44%	49%	42%	40%	44%	31%	41%	40%
200 W 6TH	Zone 2	58%	68%	61%	54%	29%	60%	60%	66%	66%	65%	50%	66%	58%
200 W 7TH	Zone 2	58%	68%	61%	58%	28%	69%	59%	58%	62%	66%	52%	51%	57%
200 W Kirkwood	Zone 2	61%	64%	57%	49%	26%	60%	61%	68%	57%	66%	47%	61%	56%
300 W 4TH	Zone 2	27%	41%	44%	37%	18%	47%	45%	33%	30%	41%	27%	39%	35%
300 W 6TH	Zone 2	23%	28%	23%	26%	12%	28%	32%	33%	34%	33%	24%	24%	26%
300 W 7TH	Zone 2	32%	40%	37%	39%	17%	44%	44%	45%	40%	47%	36%	35%	37%
300 W Kirkwood	Zone 2	37%	41%	43%	36%	18%	41%	42%	43%	40%	41%	31%	44%	38%
400 W 4TH	Zone 2	13%	18%	18%	17%	7%	18%	18%	15%	16%	18%	12%	11%	15%
400 W 6TH	Zone 2	10%	13%	8%	9%	6%	16%	16%	14%	15%	15%	13%	11%	12%
400 W 7TH	Zone 2	9%	13%	10%	16%	7%	15%	15%	14%	15%	29%	18%	7%	14%
400 W Kirkwood	Zone 2	0%	8%	9%	8%	3%	8%	1%	2%	12%	12%	9%	9%	7%
100 E 4TH	Zone 3	29%	31%	30%	33%	14%	28%	30%	34%	44%	42%	30%	48%	32%
100 E 6TH	Zone 3	47%	55%	49%	45%	20%	47%	47%	57%	50%	59%	42%	58%	47%
100 E 7TH	Zone 3	33%	39%	33%	29%	17%	41%	35%	49%	49%	49%	36%	40%	37%
100 E Kirkwood	Zone 3	72%	82%	75%	67%	35%	81%	76%	79%	72%	84%	63%	83%	71%
100 N College	Zone 3	72%	83%	83%	70%	35%	78%	76%	82%	79%	85%	65%	84%	73%
100 N Walnut	Zone 3	70%	82%	83%	73%	38%	85%	84%	89%	83%	86%	72%	88%	77%
100 S College	Zone 3	49%	62%	56%	50%	26%	56%	58%	63%	64%	62%	44%	62%	53%
100 S Walnut	Zone 3	63%	78%	69%	64%	33%	73%	74%	72%	73%	78%	62%	82%	67%
100 W 4TH	Zone 3	35%	60%	44%	42%	16%	42%	42%	43%	44%	52%	30%	47%	41%
100 W 6TH	Zone 3	73%	77%	73%	73%	36%	70%	77%	83%	65%	80%	63%	78%	70%
100 W 7TH	Zone 3	54%	58%	58%	52%	23%	54%	51%	56%	56%	58%	46%	55%	51%
100 W Kirkwood	Zone 3	65%	74%	72%	64%	33%	68%	72%	75%	64%	76%	57%	78%	65%
200 N College	Zone 3	43%	56%	54%	45%	23%	54%	52%	60%	56%	53%	42%	50%	49%
200 N Walnut	Zone 3	55%	59%	67%	50%	26%	58%	58%	61%	55%	58%	42%	57%	53%
200 S College	Zone 3	15%	22%	21%	23%	7%	19%	17%	18%	30%	24%	15%	20%	19%
200 S Walnut	Zone 3	11%	26%	19%	27%	8%	23%	19%	21%	38%	31%	19%	24%	22%
300 S College	Zone 3	2%	2%	2%	4%	2%	3%	2%	2%	9%	3%	3%	1%	3%
300 S Walnut	Zone 3	14%	17%	14%	21%	11%	16%	20%	18%	27%	20%	13%	12%	17%
400 S College	Zone 3	11%	17%	21%	13%	7%	13%	15%	12%	15%	20%	11%	12%	14%
400 S Walnut	Zone 3	16%	24%	22%	23%	15%	26%	29%	28%	38%	30%	20%	26%	24%
100 N Lincoln	Zone 4	46%	69%	59%	58%	21%	49%	45%	56%	64%	64%	49%	57%	52%
100 N Washington	Zone 4	37%	49%	39%	42%	14%	35%	42%	61%	55%	55%	39%	43%	42%
100 S Lincoln	Zone 4	25%	44%	35%	41%	13%	33%	28%	43%	58%	60%	44%	45%	39%
100 S Washington	Zone 4	40%	50%	46%	43%	20%	44%	44%	46%	43%	53%	40%	56%	43%
200 E 4TH	Zone 4	17%	32%	25%	27%	8%	13%	12%	23%	33%	34%	23%	27%	22%
200 E 6TH	Zone 4	9%	9%	9%	11%	5%	8%	7%	14%	13%	13%	9%	13%	10%
200 E 7TH	Zone 4	4%	7%	5%	5%	2%	6%	3%	16%	12%	12%	6%	7%	7%
200 E Kirkwood	Zone 4	48%	63%	59%	57%	22%	52%	48%	58%	63%	70%	48%	65%	53%
200 N Lincoln	Zone 4	16%	25%	21%	23%	6%	11%	15%	15%	14%	12%	8%	8%	14%
200 N Washington	Zone 4	6%	6%	6%	5%	5%	9%	8%	14%	10%	10%	6%	9%	8%
200 S Lincoln	Zone 4	35%	46%	40%	40%	11%	24%	28%	36%	45%	38%	29%	31%	33%
200 S Washington	Zone 4	13%	26%	12%	21%	4%	7%	9%	13%	25%	21%	11%	24%	15%
300 E 4TH	Zone 4	56%	76%	64%	63%	24%	56%	57%	69%	68%	80%	61%	62%	61%
300 E 6TH	Zone 4	38%	49%	47%	43%	24%	46%	44%	47%	50%	48%	38%	43%	43%
300 E 7TH	Zone 4	7%	10%	10%	15%	4%	6%	9%	12%	14%	18%	9%	6%	10%
300 E Kirkwood	Zone 4	65%	91%	84%	74%	37%	82%	76%	90%	90%	91%	71%	83%	77%
100 N Dunn	Zone 5	83%	100%	89%	77%	39%	89%	84%	99%	98%	106%	76%	88%	85%
100 N Grant	Zone 5	72%	87%	78%	70%	37%	81%	78%	89%	91%	90%	71%	83%	76%
100 S Dunn	Zone 5	65%	84%	75%	69%	30%	74%	68%	81%	81%	84%	64%	69%	69%
100 S Grant	Zone 5	73%	75%	82%	75%	34%	75%	71%	87%	80%	89%	70%	80%	73%
100 S Indiana	Zone 5	74%	88%	85%	72%	37%	84%	89%	89%	89%	93%	69%	78%	78%
200 N Dunn	Zone 5	63%	83%	71%	72%	29%	56%	57%	73%	75%	72%	51%	53%	62%
200 N Grant	Zone 5	17%	23%	22%	19%	12%	20%	24%	27%	26%	32%	18%	20%	22%
200 S Dunn	Zone 5	52%	73%	60%	64%	20%	35%	37%	58%	57%	68%	48%	43%	51%

200 S Grant	Zone 5	40%	45%	43%	41%	22%	47%	46%	59%	53%	60%	45%	51%	45%
200 S Indiana	Zone 5	74%	90%	81%	77%	38%	76%	76%	76%	87%	82%	67%	72%	74%
400 E 4TH	Zone 5	62%	83%	72%	70%	27%	65%	64%	77%	76%	82%	62%	71%	67%
400 E 6TH	Zone 5	29%	40%	44%	36%	25%	59%	52%	55%	38%	38%	28%	37%	40%
400 E 7TH	Zone 5	19%	26%	22%	25%	12%	23%	23%	25%	32%	31%	23%	23%	23%
400 E Kirkwood	Zone 5	77%	88%	90%	75%	43%	91%	84%	93%	90%	91%	71%	88%	81%
500 E 4TH	Zone 5	75%	95%	82%	79%	36%	86%	84%	88%	91%	92%	68%	81%	79%
500 E 6TH	Zone 5	61%	83%	64%	68%	27%	53%	56%	68%	85%	93%	64%	64%	65%
500 E Kirkwood	Zone 5	72%	86%	77%	69%	35%	77%	74%	87%	85%	84%	70%	80%	74%

**Systemwide
BFO** 38%

Blockface	Zone	Jan N	Feb N	Mar N	Apr N	May N	Jun N	Jul N	Aug N	Sep N	Oct N	Nov N	Dec N	Stalls	Avg Stalls
100 W 8TH	Zone 1	563.00	704.00	648.00	734.00	186.00	369.00	400.00	978.00	866.00	858.00	489.00	342.00	240.00	20.00
100 W 9TH	Zone 1	369.00	439.00	411.00	362.00	188.00	476.00	403.00	532.00	663.00	808.00	481.00	316.00	96.00	8.00
200 W 11TH	Zone 1	406.00	480.00	455.00	465.00	96.00	285.00	216.00	632.00	528.00	631.00	427.00	296.00	108.00	9.00
200 W 8TH	Zone 1	99.00	71.00	117.00	169.00	26.00	85.00	80.00	257.00	206.00	175.00	110.00	123.00	84.00	7.00
200 W 9TH	Zone 1	489.00	535.00	417.00	539.00	209.00	411.00	345.00	953.00	586.00	629.00	432.00	299.00	108.00	9.00
300 N College	Zone 1	1,518.00	1,753.00	1,730.00	1,486.00	809.00	1,820.00	1,596.00	1,873.00	1,716.00	1,619.00	1,261.00	1,267.00	132.00	11.00
300 N Morton ST	Zone 1	2,460.00	2,614.00	2,526.00	2,850.00	1,343.00	2,416.00	2,924.00	3,667.00	3,142.00	3,328.00	2,753.00	1,882.00	276.00	23.00
300 N Walnut	Zone 1	442.00	525.00	562.00	513.00	192.00	448.00	372.00	541.00	528.00	549.00	361.00	385.00	72.00	6.00
300 W 11TH	Zone 1	1,271.00	1,561.00	2,231.00	1,720.00	837.00	1,573.00	1,462.00	1,494.00	1,310.00	1,499.00	1,077.00	1,033.00	221.00	18.42
300 W 12TH	Zone 1	407.00	598.00	668.00	678.00	173.00	441.00	359.00	426.00	533.00	465.00	272.00	217.00	168.00	14.00
400 N College	Zone 1	1,021.00	895.00	860.00	789.00	383.00	881.00	942.00	1,104.00	846.00	964.00	703.00	622.00	116.00	9.67
400 N Morton ST	Zone 1	2,817.00	2,871.00	3,161.00	2,937.00	1,553.00	3,175.00	3,451.00	4,085.00	3,338.00	3,444.00	2,749.00	2,225.00	264.00	22.00
400 N Walnut	Zone 1	390.00	457.00	425.00	401.00	161.00	361.00	372.00	491.00	662.00	701.00	388.00	264.00	108.00	9.00
400 W 11TH	Zone 1	39.00	104.00	114.00	65.00	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	4.00	0.33
400 W 8TH	Zone 1	52.00	27.00	37.00	74.00	46.00	66.00	86.00	153.00	199.00	240.00	149.00	73.00	69.00	5.75
500 N College	Zone 1	639.00	835.00	676.00	724.00	290.00	701.00	652.00	1,206.00	849.00	873.00	612.00	489.00	168.00	14.00
500 N Morton ST	Zone 1	714.00	801.00	950.00	1,091.00	579.00	928.00	1,251.00	1,731.00	1,275.00	1,224.00	947.00	515.00	216.00	18.00
500 N Morton St - Permit	Zone 1	431.00	569.00	419.00	602.00	224.00	482.00	580.00	686.00	483.00	546.00	350.00	138.00	143.00	11.92
500 N Walnut	Zone 1	211.00	288.00	270.00	229.00	119.00	395.00	343.00	389.00	469.00	573.00	351.00	269.00	84.00	7.00
600 N College	Zone 1	1,193.00	1,613.00	1,353.00	1,382.00	588.00	1,275.00	1,293.00	2,287.00	1,743.00	1,909.00	#DIV/0!	1,353.00	336.00	28.00
600 N Morton ST	Zone 1	827.00	1,002.00	900.00	1,046.00	386.00	863.00	838.00	2,103.00	1,322.00	1,220.00	769.00	481.00	348.00	29.00
600 N Walnut	Zone 1	304.00	283.00	309.00	254.00	133.00	282.00	292.00	377.00	375.00	413.00	319.00	288.00	120.00	10.00
700 N ASHLVNN PARK	Zone 1	473.00	889.00	1,485.00	1,024.00	317.00	629.00	524.00	604.00	540.00	489.00	298.00	326.00	144.00	12.00
700 N MORTON	Zone 1	559.00	734.00	677.00	628.00	197.00	367.00	357.00	635.00	615.00	554.00	281.00	264.00	168.00	14.00
800 N MORTON	Zone 1	469.00	496.00	475.00	#DIV/0!	#DIV/0!	16.00	#DIV/0!	#DIV/0!	#DIV/0!	43.00	#DIV/0!	#DIV/0!	59.00	4.92
100 N Madison	Zone 2	298.00	413.00	298.00	386.00	155.00	396.00	466.00	546.00	507.00	449.00	358.00	261.00	168.00	14.00
100 N Morton ST	Zone 2	1,067.00	1,129.00	1,244.00	588.00	1,120.00	1,253.00	1,365.00	1,471.00	1,315.00	1,341.00	949.00	949.00	132.00	11.00
100 S Madison	Zone 2	458.00	621.00	649.00	591.00	252.00	640.00	693.00	665.00	532.00	596.00	#DIV/0!	423.00	238.00	19.83
200 S Madison	Zone 2	492.00	578.00	507.00	585.00	366.00	906.00	641.00	862.00	958.00	1,163.00	861.00	513.00	203.00	16.92
200 N Morton ST	Zone 2	4,126.00	4,955.00	4,763.00	4,427.00	2,279.00	5,255.00	5,300.00	5,985.00	5,224.00	5,743.00	4,236.00	3,786.00	420.00	35.00
200 S Madison	Zone 2	139.00	179.00	342.00	298.00	131.00	316.00	389.00	340.00	269.00	287.00	299.00	213.00	108.00	9.00
200 W 4TH	Zone 2	1,200.00	1,326.00	1,294.00	1,092.00	589.00	1,265.00	1,364.00	1,330.00	1,208.00	1,359.00	947.00	1,079.00	156.00	13.00
200 W 6TH	Zone 2	3,391.00	3,837.00	3,733.00	3,145.00	1,669.00	3,561.00	3,583.00	4,055.00	3,760.00	3,805.00	3,028.00	3,102.00	276.00	23.00
200 W 7TH	Zone 2	2,147.00	2,384.00	2,399.00	2,063.00	1,116.00	2,536.00	2,263.00	2,363.00	2,369.00	2,479.00	1,991.00	1,747.00	156.00	13.00
200 W Kirkwood	Zone 2	2,651.00	2,681.00	2,373.00	2,002.00	1,123.00	2,490.00	2,483.00	2,848.00	2,473.00	2,608.00	1,970.00	2,048.00	168.00	14.00
300 W 4TH	Zone 2	965.00	1,330.00	1,523.00	1,143.00	630.00	1,530.00	1,602.00	1,232.00	1,091.00	1,380.00	948.00	1,150.00	192.00	16.00
300 W 6TH	Zone 2	2,265.00	2,645.00	2,518.00	2,483.00	1,249.00	2,933.00	3,111.00	3,608.00	3,266.00	3,162.00	2,583.00	2,096.00	240.00	20.00
300 W 7TH	Zone 2	1,699.00	2,129.00	2,041.00	1,985.00	963.00	2,256.00	2,355.00	2,520.00	2,070.00	2,603.00	1,982.00	1,596.00	204.00	17.00
300 W Kirkwood	Zone 2	1,271.00	1,416.00	1,476.00	1,222.00	517.00	1,182.00	1,133.00	1,238.00	1,202.00	1,181.00	897.00	1,044.00	156.00	13.00
400 W 4TH	Zone 2	1,102.00	1,438.00	1,480.00	1,303.00	675.00	1,366.00	1,455.00	1,410.00	1,373.00	1,389.00	1,034.00	763.00	240.00	20.00
400 W 6TH	Zone 2	423.00	570.00	418.00	472.00	297.00	862.00	873.00	885.00	874.00	800.00	651.00	367.00	215.00	17.92
400 W 7TH	Zone 2	748.00	1,104.00	999.00	1,542.00	629.00	1,425.00	1,519.00	1,482.00	1,460.00	3,104.00	1,893.00	#DIV/0!	380.00	31.67
400 W Kirkwood	Zone 2	1.00	133.00	211.00	176.00	70.00	165.00	14.00	48.00	221.00	219.00	172.00	166.00	96.00	8.00
100 E 4TH	Zone 3	888.00	999.00	1,068.00	989.00	408.00	958.00	967.00	1,192.00	1,382.00	1,254.00	985.00	1,148.00	180.00	15.00
100 E 6TH	Zone 3	4,821.00	5,294.00	5,271.00	4,452.00	2,209.00	5,085.00	5,070.00	6,130.00	4,889.00	5,605.00	4,340.00	4,962.00	492.00	41.00
100 E 7TH	Zone 3	1,402.00	1,564.00	1,443.00	1,191.00	770.00	1,879.00	1,451.00	2,091.00	1,875.00	1,936.00	1,643.00	1,463.00	192.00	16.00
100 E Kirkwood	Zone 3	3,252.00	3,394.00	3,467.00	2,966.00	1,573.00	3,530.00	3,329.00	3,542.00	3,166.00	3,491.00	2,844.00	2,751.00	192.00	16.00
100 N College	Zone 3	6,751.00	7,143.00	8,344.00	6,110.00	3,316.00	7,145.00	6,550.00	7,515.00	6,801.00	7,185.00	6,111.00	6,533.00	384.00	32.00
100 N Walnut	Zone 3	4,912.00	5,530.00	6,383.00	5,162.00	2,776.00	6,407.00	6,019.00	6,423.00	5,639.00	5,972.00	5,003.00	4,984.00	336.00	28.00
100 S College	Zone 3	2,562.00	2,981.00	3,181.00	2,665.00	1,451.00	3,136.00	3,011.00	3,421.00	3,076.00	3,051.00	2,359.00	2,564.00	192.00	16.00
100 S Walnut	Zone 3	3,425.00	3,993.00	3,935.00	3,461.00	1,792.00	4,033.00	3,956.00	4,163.00	3,781.00	4,092.00	3,381.00	3,723.00	264.00	22.00
100 W 4TH	Zone 3	968.00	1,339.00	1,168.00	1,081.00	454.00	1,282.00	1,252.00	1,146.00	1,145.00	1,279.00	857.00	1,076.00	132.00	11.00
100 W 6TH	Zone 3	4,426.00	4,378.00	4,692.00	4,236.00	2,331.00	4,540.00	4,806.00	5,369.00	4,012.00	4,905.00	3,862.00	3,851.00	312.00	26.00
100 W 7TH	Zone 3	2,492.00	2,598.00	2,689.00	2,229.00	1,204.00	2,636.00	2,502.00	2,899.00	2,608.00	2,744.00	2,301.00	2,222.00	216.00	18.00
100 W Kirkwood	Zone 3	7,880.00	8,192.00	9,214.00	7,574.00	3,974.00	8,265.00	8,365.00	9,027.00	7,432.00	8,576.00	6,925.00	7,533.00	540.00	45.00
200 N College	Zone 3	2,157.00	2,760.00	3,295.00	2,770.00	1,243.00	3,173.00	2,923.00	3,647.00	3,011.00	2,785.00	2,282.00	2,302.00	236.00	19.67
200 N Walnut	Zone 3	2,914.00	2,983.00	3,502.00	2,551.00	1,370.00	3,085.00	2,989.00	3,149.00	2,722.00	2,983.00	2,283.00	2,439.00	228.00	19.00
200 S College	Zone 3	231.00	277.00	278.00	287.00	96.00	296.00	263.00	308.00	361.00	354.00	215.00	244.00	60.00	5.00
200 S Walnut	Zone 3	270.00	583.00	521.00	588.00	183.00	678.00	561.00	510.00	762.00	729.00	498.00	487.00	132.00	11.00
300 S College	Zone 3	64.00	56.00	66.00	121.00	47.00	85.00	81.00	65.00	219.00	98.00	93.00	59.00	141.00	11.75
300 S Walnut	Zone 3	482.00	540.00	533.00	704.00	409.00	691.00	726.00	705.00	848.00	770.00	568.00	404.00	119.00	9.92
400 S College	Zone 3	215.00	322.00	405.00	218.00	127.00	255.00	252.00	199.00	276.00	415.00	201.00	147.00	80.00	6.67
400 S Walnut	Zone 3	330.00	403.00	423.00	473.00	287.00	571.00	613.00	619.00	715.00	652.00	420.00	401.00	84.00	7.00
100 N Lincoln	Zone 4	2,449.00	3,305.00	3,262.00	2,845.00	1,222.00	2,790.00	2,525.00	3,034.00	3,146.00	2,989.00	2,520.00	2,291.00	216.00	18.00
100 N Washington	Zone 4	1,759.00	2,192.00	2,025.00	1,853.00	745.00	1,672.00	1,461.00	1,615.00	1,596.00	1,868.00	1,442.00	1,511.00	206.00	17.17
100 S Lincoln	Zone 4	957.00	1,457.00	1,251.00											

500 E 6TH	Zone 5	2,120.00	2,812.00	2,359.00	2,511.00	891.00	2,075.00	2,223.00	2,768.00	3,035.00	3,224.00	2,171.00	1,898.00	251.00	20.92
500 E Kirkwood	Zone 5	2,514.00	2,767.00	2,629.00	2,098.00	1,287.00	2,769.00	2,592.00	3,070.00	2,585.00	2,510.00	2,098.00	2,150.00	168.00	14.00

Blockface	Zone	Jan \$	Feb \$	Mar \$	Apr \$	May \$	Jun \$	Jul \$	Aug \$	Sep \$	Oct \$	Nov \$	Dec \$	Total \$	Total Stalls N	Avg Stalls N	Weighted Mo. Avg	Operational Expense	System Expense	Staffing Expense	GF Expense	Total Expense	Net	Contribution %
100 W 8TH	Zone 1	\$ 722.90	\$ 917.85	\$ 831.35	\$ 1,045.95	\$ 289.70	\$ 494.30	\$ 530.85	\$ 1,464.45	\$ 1,381.60	\$ 1,504.05	\$ 614.25	\$ 443.95	10,241.20	240.00	20.00	\$ 853.43	\$ 2,501.99	\$ 11,860.53	\$ 9,013.00	\$ 774.35	\$ 24,149.88	\$ (13,908.68)	
100 W 9TH	Zone 1	\$ 451.40	\$ 437.55	\$ 412.45	\$ 428.65	\$ 197.15	\$ 494.80	\$ 346.95	\$ 589.90	\$ 903.95	\$ 1,013.05	\$ 542.75	\$ 314.90	6,133.50	96.00	8.00	\$ 511.13	\$ 1,000.80	\$ 4,744.21	\$ 3,605.20	\$ 309.74	\$ 9,659.95	\$ (3,526.45)	
200 W 11TH	Zone 1	\$ 551.85	\$ 611.60	\$ 543.15	\$ 610.00	\$ 130.90	\$ 304.25	\$ 290.75	\$ 674.25	\$ 727.55	\$ 818.55	\$ 499.10	\$ 455.70	6,217.65	108.00	9.00	\$ 518.14	\$ 1,125.89	\$ 5,337.24	\$ 4,055.85	\$ 348.46	\$ 10,867.44	\$ (4,649.79)	
200 W 8TH	Zone 1	\$ 186.40	\$ 143.35	\$ 193.15	\$ 293.80	\$ 38.35	\$ 124.65	\$ 137.10	\$ 381.70	\$ 363.15	\$ 353.05	\$ 192.30	\$ 239.45	2,646.45	84.00	7.00	\$ 220.54	\$ 875.70	\$ 4,151.19	\$ 3,154.55	\$ 271.02	\$ 8,452.46	\$ (5,806.01)	
200 W 9TH	Zone 1	\$ 703.10	\$ 770.65	\$ 536.10	\$ 779.65	\$ 252.95	\$ 536.90	\$ 437.05	\$ 1,260.30	\$ 835.00	\$ 931.90	\$ 598.75	\$ 359.90	8,002.25	108.00	9.00	\$ 666.85	\$ 1,125.89	\$ 5,337.24	\$ 4,055.85	\$ 348.46	\$ 10,867.44	\$ (2,865.19)	
300 N College	Zone 1	\$ 1,478.90	\$ 1,715.85	\$ 1,718.00	\$ 1,612.55	\$ 777.75	\$ 1,714.90	\$ 1,415.10	\$ 1,927.40	\$ 1,875.55	\$ 1,727.60	\$ 1,392.00	\$ 1,240.05	18,595.65	132.00	11.00	\$ 1,549.64	\$ 1,376.09	\$ 6,523.29	\$ 4,957.15	\$ 425.89	\$ 13,282.43	\$ 5,313.22	2.55%
300 N Morton ST	Zone 1	\$ 2,400.50	\$ 2,673.95	\$ 2,448.55	\$ 2,630.85	\$ 1,327.20	\$ 2,254.95	\$ 2,621.95	\$ 3,270.40	\$ 3,284.85	\$ 3,223.25	\$ 2,582.15	\$ 1,958.30	30,676.90	276.00	23.00	\$ 2,556.41	\$ 2,877.29	\$ 13,639.61	\$ 10,364.95	\$ 890.51	\$ 27,772.36	\$ 2,904.54	1.40%
300 N Walnut	Zone 1	\$ 515.10	\$ 662.45	\$ 665.60	\$ 566.15	\$ 212.35	\$ 455.80	\$ 391.05	\$ 621.55	\$ 588.95	\$ 662.30	\$ 402.45	\$ 412.85	6,156.60	72.00	6.00	\$ 513.05	\$ 750.60	\$ 3,558.16	\$ 2,703.90	\$ 232.31	\$ 7,244.96	\$ (1,088.36)	
300 W 11TH	Zone 1	\$ 1,418.70	\$ 1,790.20	\$ 2,575.55	\$ 2,082.85	\$ 1,008.55	\$ 1,904.05	\$ 1,706.00	\$ 1,777.15	\$ 1,526.30	\$ 1,802.55	\$ 1,254.80	\$ 1,221.00	20,067.70	221.00	18.42	\$ 1,663.50	\$ 2,303.91	\$ 10,921.57	\$ 8,299.47	\$ 713.05	\$ 22,238.01	\$ (2,170.31)	
300 W 12TH	Zone 1	\$ 520.15	\$ 812.50	\$ 844.85	\$ 928.45	\$ 203.45	\$ 596.45	\$ 422.20	\$ 482.35	\$ 598.00	\$ 584.40	\$ 295.60	\$ 332.85	6,621.25	168.00	14.00	\$ 551.77	\$ 1,751.39	\$ 8,302.37	\$ 6,309.10	\$ 542.05	\$ 16,904.91	\$ (10,283.66)	
400 N College	Zone 1	\$ 1,053.50	\$ 1,165.35	\$ 989.35	\$ 1,152.65	\$ 440.15	\$ 950.50	\$ 1,072.30	\$ 1,228.30	\$ 1,008.90	\$ 1,141.80	\$ 872.85	\$ 722.75	11,798.40	116.00	9.67	\$ 984.81	\$ 1,209.29	\$ 5,732.59	\$ 4,356.29	\$ 374.27	\$ 11,672.44	\$ 125.96	0.06%
400 N Morton ST	Zone 1	\$ 2,847.35	\$ 2,991.20	\$ 3,307.75	\$ 3,161.10	\$ 1,574.70	\$ 3,183.30	\$ 3,402.90	\$ 4,113.65	\$ 3,374.10	\$ 3,639.95	\$ 2,779.05	\$ 2,417.45	36,792.50	264.00	22.00	\$ 3,066.04	\$ 2,752.19	\$ 13,046.59	\$ 9,914.30	\$ 851.79	\$ 26,564.87	\$ 10,227.63	4.91%
400 N Walnut	Zone 1	\$ 626.65	\$ 649.65	\$ 444.15	\$ 435.00	\$ 194.15	\$ 357.60	\$ 408.80	\$ 519.05	\$ 956.55	\$ 895.80	\$ 512.05	\$ 273.60	6,273.05	108.00	9.00	\$ 522.75	\$ 1,125.89	\$ 5,337.24	\$ 4,055.85	\$ 348.46	\$ 10,867.44	\$ (4,594.39)	
400 W 11TH	Zone 1	\$ 56.20	\$ 106.55	\$ 139.90	\$ 78.90	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	381.55	4.00	0.33	#N/A	\$ 41.70	\$ 197.68	\$ 150.22	\$ 12.91	\$ 402.50	\$ (20.95)	
400 W 8TH	Zone 1	\$ 49.45	\$ 37.95	\$ 50.20	\$ 102.30	\$ 40.05	\$ 62.45	\$ 71.30	\$ 101.15	\$ 181.40	\$ 171.45	\$ 100.25	\$ 62.80	1,030.75	69.00	5.75	\$ 100.43	\$ 719.32	\$ 3,409.90	\$ 2,591.24	\$ 222.63	\$ 6,943.09	\$ (5,912.34)	
500 N College	Zone 1	\$ 814.10	\$ 1,024.65	\$ 714.35	\$ 875.05	\$ 242.05	\$ 697.35	\$ 798.15	\$ 1,714.75	\$ 1,199.15	\$ 1,286.85	\$ 784.90	\$ 612.35	10,763.70	168.00	14.00	\$ 896.98	\$ 1,751.39	\$ 8,302.37	\$ 6,309.10	\$ 542.05	\$ 16,904.91	\$ (6,141.21)	
500 N Morton ST	Zone 1	\$ 1,049.95	\$ 1,154.80	\$ 1,575.10	\$ 1,727.85	\$ 995.90	\$ 1,876.30	\$ 2,329.45	\$ 2,866.40	\$ 1,797.80	\$ 1,638.30	\$ 1,105.45	\$ 734.30	18,851.60	216.00	18.00	\$ 1,570.97	\$ 2,251.79	\$ 10,674.48	\$ 8,111.70	\$ 696.92	\$ 21,734.89	\$ (2,883.29)	
500 N Morton St - Permit	Zone 1	\$ 475.75	\$ 621.05	\$ 463.75	\$ 706.80	\$ 257.75	\$ 509.10	\$ 639.55	\$ 722.25	\$ 516.00	\$ 561.00	\$ 349.20	\$ 152.30	5,974.50	143.00	11.92	\$ 500.29	\$ 1,490.77	\$ 7,066.90	\$ 5,370.25	\$ 461.39	\$ 14,389.30	\$ (8,414.80)	
500 N Walnut	Zone 1	\$ 276.55	\$ 321.75	\$ 262.35	\$ 247.65	\$ 131.30	\$ 514.20	\$ 456.15	\$ 441.70	\$ 600.25	\$ 623.15	\$ 441.10	\$ 307.60	4,623.75	84.00	7.00	\$ 385.31	\$ 875.70	\$ 4,151.19	\$ 3,154.55	\$ 271.02	\$ 8,452.46	\$ (3,828.71)	
600 N College	Zone 1	\$ 1,215.10	\$ 1,602.75	\$ 1,272.80	\$ 1,411.90	\$ 549.85	\$ 1,285.75	\$ 1,248.15	\$ 2,165.00	\$ 1,886.40	\$ 2,098.10	\$ 1,324.45	\$ 1,071.75	17,132.00	336.00	28.00	\$ 1,440.98	\$ 3,502.78	\$ 16,604.75	\$ 12,618.21	\$ 1,084.09	\$ 33,809.83	\$ (16,677.83)	
600 N Morton ST	Zone 1	\$ 1,126.55	\$ 1,382.15	\$ 1,208.70	\$ 1,618.50	\$ 538.65	\$ 1,394.30	\$ 1,283.00	\$ 3,166.20	\$ 2,020.65	\$ 1,729.60	\$ 940.55	\$ 698.40	17,107.25	348.00	29.00	\$ 1,425.60	\$ 3,627.88	\$ 17,197.77	\$ 13,068.86	\$ 1,122.81	\$ 35,017.32	\$ (17,910.07)	
600 N Walnut	Zone 1	\$ 267.55	\$ 217.05	\$ 247.20	\$ 295.15	\$ 136.60	\$ 278.25	\$ 259.20	\$ 355.60	\$ 448.25	\$ 532.70	\$ 424.35	\$ 238.80	3,700.70	120.00	10.00	\$ 308.39	\$ 1,250.99	\$ 5,930.27	\$ 4,506.50	\$ 387.18	\$ 12,074.94	\$ (8,374.24)	
700 N ASHLINN PARK	Zone 1	\$ 648.55	\$ 1,134.75	\$ 1,706.25	\$ 1,361.65	\$ 452.05	\$ 870.40	\$ 706.60	\$ 859.15	\$ 749.30	\$ 681.20	\$ 403.20	\$ 423.55	9,996.65	144.00	12.00	\$ 833.05	\$ 1,501.19	\$ 7,116.32	\$ 5,407.80	\$ 464.61	\$ 14,489.93	\$ (4,493.28)	
700 N MORTON	Zone 1	\$ 605.30	\$ 908.95	\$ 805.05	\$ 951.60	\$ 241.15	\$ 513.95	\$ 513.95	\$ 697.45	\$ 784.80	\$ 728.85	\$ 318.20	\$ 311.05	7,380.30	168.00	14.00	\$ 615.03	\$ 1,751.39	\$ 8,302.37	\$ 6,309.10	\$ 542.05	\$ 16,904.91	\$ (9,524.61)	
800 N MORTON	Zone 1	\$ 549.05	\$ 561.40	\$ 588.25	\$ 4.35	\$ 1.75	\$ 5.10	\$ 9.00	\$ 5.55	\$ -	\$ 0.05	\$ -	\$ -	1,724.50	59.00	4.92	\$ 480.59	\$ 615.07	\$ 2,915.71	\$ 2,215.70	\$ 190.36	\$ 5,936.84	\$ (4,212.34)	
100 N Madison	Zone 2	\$ 419.80	\$ 564.75	\$ 390.50	\$ 513.15	\$ 163.70	\$ 394.60	\$ 471.20	\$ 536.80	\$ 573.35	\$ 556.30	\$ 424.35	\$ 332.90	5,341.40	168.00	14.00	\$ 445.12	\$ 1,751.39	\$ 8,302.37	\$ 6,309.10	\$ 542.05	\$ 16,904.91	\$ (11,563.51)	
100 N Morton ST	Zone 2	\$ 1,574.90	\$ 1,614.90	\$ 1,697.35	\$ 1,516.20	\$ 784.90	\$ 1,708.00	\$ 1,818.40	\$ 1,853.05	\$ 1,696.80	\$ 1,793.15	\$ 1,322.35	\$ 1,278.60	18,658.60	132.00	11.00	\$ 1,554.88	\$ 1,376.09	\$ 6,523.29	\$ 4,957.15	\$ 425.89	\$ 13,282.43	\$ 5,376.17	2.58%
100 S Madison	Zone 2	\$ 599.60	\$ 820.80	\$ 966.35	\$ 944.65	\$ 317.05	\$ 843.30	\$ 1,005.10	\$ 864.25	\$ 764.10	\$ 818.15	\$ 501.55	\$ 557.85	9,002.75	238.00	19.83	\$ 749.78	\$ 2,481.14	\$ 11,761.69	\$ 8,937.90	\$ 767.90	\$ 23,948.63	\$ (14,945.88)	
200 N Madison	Zone 2	\$ 771.05	\$ 826.25	\$ 629.10	\$ 554.20	\$ 375.60	\$ 944.90	\$ 756.15	\$ 991.50	\$ 1,036.70	\$ 1,130.40	\$ 985.75	\$ 864.75	9,866.35	203.00	16.92	\$ 821.99	\$ 2,116.26	\$ 10,032.03	\$ 7,623.50	\$ 654.97	\$ 20,426.77	\$ (10,560.42)	
200 N Morton ST	Zone 2	\$ 4,374.70	\$ 5,281.10	\$ 5,130.90	\$ 4,789.25	\$ 2,361.70	\$ 5,559.15	\$ 5,451.50	\$ 6,031.70	\$ 5,505.60	\$ 5,899.00	\$ 4,240.85	\$ 3,826.00	58,451.45	420.00	35.00	\$ 4,870.95	\$ 4,378.48	\$ 20,755.93	\$ 15,772.76	\$ 1,355.12	\$ 42,262.29	\$ 16,189.16	7.78%
200 S Madison	Zone 2	\$ 155.00	\$ 203.80	\$ 333.50	\$ 357.75	\$ 121.60	\$ 336.05	\$ 401.65	\$ 292.05	\$ 220.00	\$ 313.10	\$ 322.65	\$ 238.35	3,295.50	108.00	9.00	\$ 274.63	\$ 1,125.89	\$ 5,337.24	\$ 4,055.85	\$ 348.46	\$ 10,867.44	\$ (7,571.94)	
200 W 4TH	Zone 2	\$ 1,578.45	\$ 1,781.40	\$ 1,732.20	\$ 1,431.05	\$ 764.75	\$ 1,670.95	\$ 1,798.05	\$ 1,677.95	\$ 1,493.65	\$ 1,668.40	\$ 1,225.60	\$ 1,267.30	18,089.75	156.00	13.00	\$ 1,507.48	\$ 1,626.29	\$ 7,709.35	\$ 5,858.45	\$ 503.33	\$ 15,697.42	\$ 2,392.33	1.15%
200 W 6TH	Zone 2	\$ 3,702.70	\$ 4,253.75	\$ 4,129.65	\$ 3,447.05	\$ 1,890.95	\$ 3,938.90	\$ 3,848.65	\$ 4,469.95	\$ 4,317.95	\$ 4,224.70	\$ 3,288.60	\$ 3,487.75	45,000.60	276.00	23.00	\$ 3,750.05	\$ 2,877.29	\$ 13,639.61	\$ 10,364.95	\$ 890.51	\$ 27,772.36	\$ 17,228.24	8.28%
200 W 7TH	Zone 2	\$ 1,802.20	\$ 1,964.40	\$ 1,953.40	\$ 1,762.05	\$ 866.80	\$ 2,177.90	\$ 1,845.55	\$ 1,961.05	\$ 1,989.15	\$ 2,104.40	\$ 1,626.45	\$ 1,336.20	21,389.55	156.00	13.00	\$ 1,782.46	\$ 1,626.29	\$ 7,709.35	\$ 5,858.45	\$ 503.33	\$ 15,697.42	\$ 5,692.13	2.73%
200 W Kirkwood	Zone 2	\$ 2,217.25	\$ 2,447.40	\$ 2,407.65	\$ 2,097.90	\$ 1,125.05	\$ 2,624.40	\$ 2,532.35	\$ 2,824.40	\$ 2,397.10	\$ 2,720.70	\$ 1,969.00	\$ 2,100.50	27,301.70	168.00	14.00	\$ 2,275.14	\$ 1,751.39	\$ 8,302.37	\$ 6,309.10	\$ 542.05	\$ 16,904.91	\$ 10,396.79	4.99%
300 W 4TH	Zone 2	\$ 1,260.20	\$ 1,761.50	\$ 1,965.10	\$ 1,636.25	\$ 795.05	\$ 1,998.60	\$ 1,963.50	\$ 1,551.80	\$ 1,353.10	\$ 1,794.60	\$ 1,273.90	\$ 1,444.85	18,798.45	192.00	16.00	\$ 1,566.54	\$ 2,001.59	\$ 9,488.43	\$ 7,210.40	\$ 619.48	\$ 19,319.90	\$ (521.45)	
300 W 6TH	Zone 2	\$ 1,338.20	\$ 1,625.55	\$ 1,461.10	\$ 1,545.70	\$ 705.50	\$ 1,655.95	\$ 1,809.65	\$ 1,995.80	\$ 1,980.85	\$ 1,911.30	\$ 1,405.85	\$ 1,160.25	18,595.70	240.00	20.00	\$ 1,549.64	\$ 2,501.99	\$ 11,860.53	\$ 9,013.00	\$ 774.35	\$ 24,149.88	\$ (5,554.18)	
300 W 7TH	Zone 2	\$ 1,427.70	\$ 1,736.20	\$ 1,721.05	\$ 1,717.10	\$ 788.90	\$ 1,881.85	\$ 1,881.25	\$ 2,088.70	\$ 1,826.05	\$ 1,597.70	\$ 1,312.50	\$ 1,057.20	20,520.20	204.00	17.00	\$ 1,669.60	\$ 2,126.69	\$ 10,081.45	\$ 7,661.05	\$ 658.20	\$ 20,527.40	\$ (492.20)	
300 W Kirkwood	Zone 2	\$ 1,606.95	\$ 1,735.00	\$ 1,963.65	\$ 1,607.00	\$ 642.75	\$ 1,404.35	\$ 1,474.45	\$ 1,558.40	\$ 1,388.25	\$ 1,456.90	\$ 1,149.20	\$ 1,210.25	17,197.15	156.00	13.00	\$ 1,455.79	\$ 1,626.29	\$ 7,709.35	\$ 5,858.45	\$ 503.33			

300 E Kirkwood	Zone 4	\$ 2,537.25	\$ 3,264.10	\$ 3,369.00	\$ 2,790.10	\$ 1,624.90	\$ 3,557.35	\$ 3,335.75	\$ 3,992.95	\$ 3,848.75	\$ 3,865.55	\$ 3,110.60	\$ 2,942.85	38,239.15	184.00	15.33	\$ 3,195.14	\$ 1,918.19	\$ 9,093.07	\$ 6,909.97	\$ 593.67	\$ 18,514.91	\$ 19,724.24	9.47%	
100 N Dunn	Zone 5	\$ 2,023.55	\$ 2,260.95	\$ 2,264.65	\$ 1,849.10	\$ 994.90	\$ 2,126.90	\$ 2,006.50	\$ 2,365.30	\$ 2,285.20	\$ 2,441.30	\$ 1,818.20	\$ 1,728.50	24,165.05	108.00	9.00	\$ 2,013.75	\$ 1,125.89	\$ 5,337.24	\$ 4,055.85	\$ 348.46	\$ 10,867.44	\$ 13,297.61	6.39%	
100 N Grant	Zone 5	\$ 1,781.15	\$ 2,028.60	\$ 2,014.95	\$ 1,741.20	\$ 917.95	\$ 1,991.15	\$ 1,880.75	\$ 2,273.25	\$ 2,236.65	\$ 2,183.45	\$ 1,739.85	\$ 1,623.70	22,412.65	108.00	9.00	\$ 1,867.72	\$ 1,125.89	\$ 5,337.24	\$ 4,055.85	\$ 348.46	\$ 10,867.44	\$ 11,545.21	5.55%	
100 S Dunn	Zone 5	\$ 1,696.90	\$ 2,279.40	\$ 2,153.15	\$ 1,922.05	\$ 886.95	\$ 2,053.50	\$ 1,979.60	\$ 2,392.65	\$ 2,170.95	\$ 2,295.60	\$ 1,793.60	\$ 1,555.30	23,179.65	119.00	9.92	\$ 1,933.61	\$ 1,240.57	\$ 5,880.85	\$ 4,468.95	\$ 383.95	\$ 11,974.31	\$ 11,205.34	5.38%	
100 S Grant	Zone 5	\$ 1,859.75	\$ 1,861.90	\$ 2,173.60	\$ 1,877.75	\$ 868.20	\$ 1,905.35	\$ 1,793.85	\$ 2,253.25	\$ 1,987.50	\$ 2,206.85	\$ 1,730.05	\$ 1,622.40	22,140.45	108.00	9.00	\$ 1,845.04	\$ 1,125.89	\$ 5,337.24	\$ 4,055.85	\$ 348.46	\$ 10,867.44	\$ 11,273.01	5.41%	
100 S Indiana	Zone 5	\$ 1,980.75	\$ 2,314.20	\$ 2,349.35	\$ 1,993.10	\$ 1,014.05	\$ 2,278.70	\$ 2,345.40	\$ 2,388.30	\$ 2,347.30	\$ 2,458.35	\$ 1,867.45	\$ 1,729.45	25,066.40	120.00	10.00	\$ 2,088.87	\$ 1,250.99	\$ 5,930.27	\$ 4,506.50	\$ 387.18	\$ 12,074.94	\$ 12,991.46	6.24%	
200 N Dunn	Zone 5	\$ 1,563.55	\$ 1,965.40	\$ 1,823.50	\$ 1,733.65	\$ 755.55	\$ 1,423.75	\$ 1,422.05	\$ 1,837.30	\$ 1,842.60	\$ 1,744.20	\$ 1,234.40	\$ 1,051.60	18,397.55	108.00	9.00	\$ 1,533.13	\$ 1,125.89	\$ 5,337.24	\$ 4,055.85	\$ 348.46	\$ 10,867.44	\$ 7,530.11	3.62%	
200 N Grant	Zone 5	\$ 351.80	\$ 439.45	\$ 477.70	\$ 402.30	\$ 244.40	\$ 422.00	\$ 500.55	\$ 565.55	\$ 516.20	\$ 615.50	\$ 362.20	\$ 340.05	5,237.70	84.00	7.00	\$ 436.48	\$ 875.70	\$ 4,151.19	\$ 3,154.55	\$ 271.02	\$ 8,452.46	\$ (3,214.76)		
200 S Dunn	Zone 5	\$ 917.50	\$ 1,193.25	\$ 1,052.50	\$ 1,110.60	\$ 360.70	\$ 622.90	\$ 612.75	\$ 1,013.15	\$ 967.05	\$ 1,161.15	\$ 862.55	\$ 620.35	10,494.45	72.00	6.00	\$ 874.54	\$ 750.60	\$ 3,558.16	\$ 2,703.90	\$ 232.31	\$ 7,244.96	\$ 3,249.49	1.56%	
200 S Grant	Zone 5	\$ 690.30	\$ 741.90	\$ 787.10	\$ 701.00	\$ 393.00	\$ 833.80	\$ 797.80	\$ 1,026.05	\$ 936.05	\$ 1,016.70	\$ 796.40	\$ 698.45	9,418.55	72.00	6.00	\$ 784.88	\$ 750.60	\$ 3,558.16	\$ 2,703.90	\$ 232.31	\$ 7,244.96	\$ 2,173.59	1.04%	
200 S Indiana	Zone 5	\$ 1,826.30	\$ 2,110.70	\$ 2,058.70	\$ 1,879.40	\$ 885.30	\$ 1,840.00	\$ 1,851.05	\$ 1,907.30	\$ 2,071.25	\$ 1,972.05	\$ 1,635.15	\$ 1,414.15	21,451.35	108.00	9.00	\$ 1,787.61	\$ 1,125.89	\$ 5,337.24	\$ 4,055.85	\$ 348.46	\$ 10,867.44	\$ 10,583.91	5.08%	
400 E 4TH	Zone 5	\$ 4,858.30	\$ 6,206.10	\$ 5,888.35	\$ 5,317.65	\$ 2,124.80	\$ 5,116.30	\$ 4,887.20	\$ 6,006.05	\$ 5,852.90	\$ 6,306.75	\$ 4,803.20	\$ 4,431.10	61,798.70	324.00	27.00	\$ 5,149.89	\$ 3,377.68	\$ 16,011.72	\$ 12,167.56	\$ 1,045.38	\$ 32,602.33	\$ 29,196.37	14.02%	
400 E 6TH	Zone 5	\$ 1,631.10	\$ 2,121.65	\$ 2,583.75	\$ 1,994.55	\$ 1,357.75	\$ 3,137.75	\$ 2,820.35	\$ 3,077.25	\$ 2,108.70	\$ 2,112.55	\$ 1,574.10	\$ 1,678.20	26,197.70	240.00	20.00	\$ 2,183.14	\$ 2,501.99	\$ 11,860.53	\$ 9,013.00	\$ 774.35	\$ 24,149.88	\$ 2,047.82	0.98%	
400 E 7TH	Zone 5	\$ 1,545.90	\$ 1,813.80	\$ 1,549.70	\$ 1,686.05	\$ 790.90	\$ 1,585.60	\$ 1,597.80	\$ 1,745.75	\$ 2,183.70	\$ 2,098.35	\$ 1,499.40	\$ 1,199.20	19,296.15	293.00	24.42	\$ 1,607.87	\$ 3,054.51	\$ 14,479.73	\$ 11,003.38	\$ 945.36	\$ 29,482.98	\$ (10,186.83)		
400 E Kirkwood	Zone 5	\$ 4,956.05	\$ 5,298.25	\$ 5,831.15	\$ 4,635.70	\$ 2,611.05	\$ 5,656.60	\$ 5,147.55	\$ 5,942.50	\$ 5,495.15	\$ 5,384.25	\$ 4,236.55	\$ 4,361.65	59,556.45	276.00	23.00	\$ 4,963.04	\$ 2,877.29	\$ 13,639.61	\$ 10,364.95	\$ 890.51	\$ 27,772.36	\$ 31,784.09	15.27%	
500 E 4TH	Zone 5	\$ 4,071.75	\$ 4,826.10	\$ 4,652.30	\$ 4,209.75	\$ 1,994.55	\$ 4,594.00	\$ 4,524.15	\$ 4,902.35	\$ 4,739.30	\$ 4,988.95	\$ 3,692.35	\$ 3,483.75	50,679.30	240.00	20.00	\$ 4,223.28	\$ 2,501.99	\$ 11,860.53	\$ 9,013.00	\$ 774.35	\$ 24,149.88	\$ 26,529.42	12.74%	
500 E 6TH	Zone 5	\$ 3,346.50	\$ 4,493.30	\$ 3,774.60	\$ 3,873.65	\$ 1,604.60	\$ 3,072.15	\$ 3,172.00	\$ 3,855.45	\$ 4,587.55	\$ 5,117.95	\$ 3,512.40	\$ 2,924.85	43,335.00	251.00	20.92	\$ 3,612.30	\$ 2,616.66	\$ 12,404.14	\$ 9,426.10	\$ 809.84	\$ 25,256.75	\$ 18,078.25	8.68%	
500 E Kirkwood	Zone 5	\$ 2,775.30	\$ 3,168.40	\$ 3,089.80	\$ 2,604.60	\$ 1,407.85	\$ 2,937.30	\$ 2,796.35	\$ 3,360.25	\$ 3,260.65	\$ 3,199.55	\$ 2,600.60	\$ 2,408.90	33,609.55	168.00	14.00	\$ 2,800.80	\$ 1,751.39	\$ 8,302.37	\$ 6,309.10	\$ 542.05	\$ 16,904.91	\$ 16,704.64	8.02%	
														1,824,176.45		1,479.58	#N/A	\$ 185,094.97	\$ 877,432.29	\$ 666,774.55	\$ 57,286.00	\$ 1,786,587.81	\$ 208,193.29		

Blockface	Zone	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Stalls	Avg Stalls	Total
100 W 8TH	Zone 1	563.00	704.00	648.00	734.00	186.00	369.00	400.00	978.00	866.00	858.00	489.00	342.00	240.00	20.00	7,137.00
100 W 9TH	Zone 1	369.00	439.00	411.00	362.00	188.00	476.00	403.00	532.00	663.00	808.00	481.00	316.00	96.00	8.00	5,448.00
200 W 11TH	Zone 1	406.00	480.00	455.00	465.00	96.00	285.00	216.00	632.00	528.00	631.00	427.00	296.00	108.00	9.00	4,917.00
200 W 8TH	Zone 1	99.00	71.00	117.00	169.00	26.00	85.00	80.00	257.00	206.00	175.00	110.00	123.00	84.00	7.00	1,518.00
200 W 9TH	Zone 1	489.00	535.00	417.00	539.00	209.00	411.00	345.00	953.00	586.00	629.00	432.00	299.00	108.00	9.00	5,844.00
300 N College	Zone 1	1,518.00	1,753.00	1,730.00	1,486.00	809.00	1,820.00	1,596.00	1,873.00	1,716.00	1,619.00	1,261.00	1,267.00	132.00	11.00	18,448.00
300 N Morton ST	Zone 1	2,460.00	2,614.00	2,526.00	2,850.00	1,343.00	2,416.00	2,924.00	3,667.00	3,142.00	3,328.00	2,753.00	1,882.00	276.00	23.00	31,905.00
300 N Walnut	Zone 1	442.00	525.00	562.00	513.00	192.00	448.00	372.00	541.00	528.00	549.00	361.00	385.00	72.00	6.00	5,418.00
300 W 11TH	Zone 1	1,271.00	1,561.00	2,231.00	1,720.00	837.00	1,573.00	1,462.00	1,494.00	1,310.00	1,499.00	1,077.00	1,033.00	221.00	18.42	17,068.00
300 W 12TH	Zone 1	407.00	598.00	668.00	678.00	173.00	441.00	359.00	426.00	533.00	465.00	272.00	217.00	168.00	14.00	5,237.00
400 N College	Zone 1	1,021.00	895.00	860.00	789.00	383.00	881.00	942.00	1,104.00	846.00	964.00	703.00	622.00	116.00	9.67	10,010.00
400 N Morton ST	Zone 1	2,817.00	2,871.00	3,161.00	2,937.00	1,553.00	3,175.00	3,451.00	4,085.00	3,338.00	3,444.00	2,749.00	2,225.00	264.00	22.00	35,806.00
400 N Walnut	Zone 1	390.00	457.00	425.00	401.00	161.00	361.00	372.00	491.00	662.00	701.00	388.00	264.00	108.00	9.00	5,073.00
400 W 11TH	Zone 1	39.00	104.00	114.00	65.00	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	4.00	0.33	#N/A
400 W 8TH	Zone 1	52.00	27.00	37.00	74.00	46.00	66.00	86.00	153.00	199.00	240.00	149.00	73.00	69.00	5.75	1,202.00
500 N College	Zone 1	639.00	835.00	676.00	724.00	290.00	701.00	652.00	1,206.00	849.00	873.00	612.00	489.00	168.00	14.00	8,546.00
500 N Morton ST	Zone 1	714.00	801.00	950.00	1,091.00	579.00	928.00	1,251.00	1,731.00	1,275.00	1,224.00	947.00	515.00	216.00	18.00	12,006.00
500 N Morton St - Permit	Zone 1	431.00	569.00	419.00	602.00	224.00	482.00	580.00	686.00	483.00	546.00	350.00	138.00	143.00	11.92	5,510.00
500 N Walnut	Zone 1	211.00	288.00	270.00	229.00	119.00	395.00	343.00	389.00	469.00	573.00	351.00	269.00	84.00	7.00	3,906.00
600 N College	Zone 1	1,193.00	1,613.00	1,353.00	1,382.00	588.00	1,275.00	1,293.00	2,287.00	1,743.00	1,909.00	#DIV/0!	1,353.00	336.00	28.00	#DIV/0!
600 N Morton ST	Zone 1	827.00	1,002.00	900.00	1,046.00	386.00	863.00	838.00	2,103.00	1,322.00	1,220.00	769.00	481.00	348.00	29.00	11,757.00
600 N Walnut	Zone 1	304.00	283.00	309.00	254.00	133.00	282.00	292.00	377.00	375.00	413.00	319.00	288.00	120.00	10.00	3,629.00
700 N ASHLINN PARK	Zone 1	473.00	889.00	1,485.00	1,024.00	317.00	629.00	524.00	604.00	540.00	489.00	298.00	326.00	144.00	12.00	7,598.00
700 N MORTON	Zone 1	559.00	734.00	677.00	628.00	197.00	367.00	357.00	524.00	615.00	554.00	281.00	264.00	168.00	14.00	5,868.00
800 N MORTON	Zone 1	469.00	496.00	475.00	518.00	190.00	406.00	277.00	256.00	316.00	347.00	223.00	183.00	59.00	4.92	4,156.00
100 N Madison	Zone 2	298.00	413.00	298.00	386.00	155.00	396.00	466.00	546.00	507.00	449.00	358.00	261.00	168.00	14.00	4,533.00
100 N Morton ST	Zone 2	1,067.00	1,129.00	1,244.00	1,120.00	588.00	1,253.00	1,365.00	1,471.00	1,315.00	1,341.00	949.00	949.00	132.00	11.00	13,791.00
100 S Madison	Zone 2	458.00	621.00	649.00	591.00	252.00	640.00	693.00	665.00	532.00	596.00	#DIV/0!	423.00	238.00	19.83	#DIV/0!
200 N Madison	Zone 2	492.00	578.00	507.00	585.00	366.00	906.00	641.00	862.00	958.00	1,163.00	861.00	513.00	203.00	16.92	8,432.00
200 N Morton ST	Zone 2	4,126.00	4,955.00	4,763.00	4,427.00	2,279.00	5,255.00	5,300.00	5,985.00	5,224.00	5,743.00	4,236.00	3,786.00	420.00	35.00	56,079.00
200 S Madison	Zone 2	139.00	179.00	342.00	298.00	131.00	316.00	389.00	340.00	269.00	287.00	299.00	213.00	108.00	9.00	3,202.00
200 W 4TH	Zone 2	1,200.00	1,326.00	1,294.00	1,092.00	589.00	1,265.00	1,364.00	1,330.00	1,208.00	1,359.00	947.00	1,079.00	156.00	13.00	14,053.00
200 W 6TH	Zone 2	3,391.00	3,837.00	3,733.00	3,145.00	1,669.00	3,561.00	3,583.00	4,055.00	3,760.00	3,805.00	3,028.00	3,102.00	276.00	23.00	40,669.00
200 W 7TH	Zone 2	2,147.00	2,384.00	2,399.00	2,063.00	1,116.00	2,536.00	2,263.00	2,363.00	2,369.00	2,479.00	1,991.00	1,747.00	156.00	13.00	25,857.00
200 W Kirkwood	Zone 2	2,651.00	2,681.00	2,373.00	2,002.00	1,123.00	2,490.00	2,483.00	2,848.00	2,473.00	2,608.00	1,970.00	2,048.00	168.00	14.00	27,750.00
300 W 4TH	Zone 2	965.00	1,330.00	1,523.00	1,143.00	630.00	1,530.00	1,602.00	1,232.00	1,091.00	1,380.00	948.00	1,150.00	192.00	16.00	14,524.00
300 W 6TH	Zone 2	2,265.00	2,645.00	2,518.00	2,483.00	1,249.00	2,933.00	3,111.00	3,608.00	3,266.00	3,162.00	2,583.00	2,096.00	240.00	20.00	31,919.00
300 W 7TH	Zone 2	1,699.00	2,129.00	2,041.00	1,985.00	963.00	2,256.00	2,355.00	2,520.00	2,070.00	2,603.00	1,982.00	1,596.00	204.00	17.00	24,199.00
300 W Kirkwood	Zone 2	1,271.00	1,416.00	1,476.00	1,222.00	517.00	1,182.00	1,133.00	1,238.00	1,202.00	1,181.00	897.00	1,044.00	156.00	13.00	13,779.00
400 W 4TH	Zone 2	1,102.00	1,438.00	1,480.00	1,303.00	675.00	1,366.00	1,455.00	1,410.00	1,373.00	1,389.00	1,034.00	763.00	240.00	20.00	14,788.00
400 W 6TH	Zone 2	423.00	570.00	418.00	472.00	297.00	862.00	873.00	885.00	874.00	800.00	651.00	367.00	215.00	17.92	7,492.00
400 W 7TH	Zone 2	748.00	1,104.00	999.00	1,542.00	629.00	1,425.00	1,519.00	1,482.00	1,460.00	3,104.00	1,893.00	493.00	380.00	31.67	16,398.00
400 W Kirkwood	Zone 2	1.00	133.00	211.00	176.00	70.00	165.00	14.00	48.00	221.00	219.00	172.00	166.00	96.00	8.00	1,596.00
100 E 4TH	Zone 3	888.00	999.00	1,068.00	989.00	408.00	958.00	967.00	1,192.00	1,382.00	1,254.00	985.00	1,148.00	180.00	15.00	12,238.00
100 E 6TH	Zone 3	4,821.00	5,294.00	5,271.00	4,452.00	2,209.00	5,085.00	5,070.00	6,130.00	4,889.00	5,605.00	4,300.00	4,962.00	492.00	41.00	58,128.00
100 E 7TH	Zone 3	1,402.00	1,564.00	1,443.00	1,191.00	770.00	1,879.00	1,451.00	2,091.00	1,875.00	1,936.00	1,643.00	1,463.00	192.00	16.00	18,708.00
100 E Kirkwood	Zone 3	3,252.00	3,394.00	3,467.00	2,966.00	1,573.00	3,530.00	3,329.00	3,542.00	3,166.00	3,491.00	2,844.00	2,751.00	192.00	16.00	37,305.00
100 N College	Zone 3	6,751.00	7,143.00	8,344.00	6,110.00	3,316.00	7,145.00	6,550.00	7,515.00	6,801.00	7,185.00	6,111.00	6,533.00	384.00	32.00	79,504.00
100 N Walnut	Zone 3	4,912.00	5,530.00	6,383.00	5,162.00	2,776.00	6,407.00	6,019.00	6,423.00	5,639.00	5,972.00	5,003.00	4,984.00	336.00	28.00	65,210.00
100 S College	Zone 3	2,562.00	2,981.00	3,181.00	2,665.00	1,451.00	3,136.00	3,011.00	3,421.00	3,076.00	3,051.00	2,359.00	2,564.00	192.00	16.00	33,458.00
100 S Walnut	Zone 3	3,425.00	3,993.00	3,935.00	3,461.00	1,792.00	4,033.00	3,956.00	4,163.00	3,781.00	4,092.00	3,381.00	3,723.00	264.00	22.00	43,735.00
100 W 4TH	Zone 3	968.00	1,339.00	1,168.00	1,081.00	454.00	1,282.00	1,252.00	1,146.00	1,145.00	1,279.00	857.00	1,076.00	132.00	11.00	13,047.00
100 W 6TH	Zone 3	4,426.00	4,378.00	4,692.00	4,236.00	2,331.00	4,540.00	4,806.00	5,369.00	4,012.00	4,905.00	3,862.00	3,851.00	312.00	26.00	51,408.00
100 W 7TH	Zone 3	2,492.00	2,598.00	2,689.00	2,229.00	1,204.00	2,636.00	2,502.00	2,899.00	2,608.00	2,744.00	2,301.00	2,222.00	216.00	18.00	29,124.00
100 W Kirkwood	Zone 3	7,880.00	8,192.00	9,214.00	7,574.00	3,974.00	8,265.00	8,365.00	9,027.00	7,432.00	8,576.00	6,925.00	7,533.00	540.00	45.00	92,957.00
200 N College	Zone 3	2,157.00	2,760.00	3,295.00	2,770.00	1,243.00	3,173.00	2,923.00	3,647.00	3,011.00	2,785.00	2,282.00	2,302.00	236.00	19.67	32,348.00
200 N Walnut	Zone 3	2,914.00	2,983.00	3,502.00	2,551.00	1,370.00	3,085.00	2,989.00	3,149.00	2,722.00	2,983.00	2,283.00	2,439.00	228.00	19.00	32,970.00
200 S College	Zone 3	231.00	277.00	278.00	287.00	96.00	296.00	263.00	308.00	361.00	354.00	215.00	244.00	60.00	5.00	3,210.00
200 S Walnut	Zone 3	270.00	583.00	521.00	588.00	183.00	678.00	561.00	510.00	762.00	729.00	498.00	487.00	132.00	11.00	6,370.00
300 S College	Zone 3	64.00	56.00	66.00	121.00	47.00	85.00	81.00	65.00	219.00	98.00	93.00	59.00	141.00	11.75	1,054.00
300 S Walnut	Zone 3	482.00	540.00	533.00	704.00	409.00	691.00	726.00	705.00	848.00	770.00	568.00	404.00	119.00		

2018 Parking Commisison Meeting Dates

1st Week	Mon	Tue	Wed	Thu	Fri
Jim Blickensdorf	O	O	O	O	X
Josh Desmond				O	
Donna Disque	O	O	O	O	O
Adrienne Evans Fernandez	P	X	P	P	O
Faith Hawkins	O	P	O	O	X
Mark Need		X		P	
Mary Jo Schaughnessy	O	O	P	O	O
Steve Volan	X	P	X	P	P
Scott Robinson					

2nd Week	Mon	Tue	Wed	Thu	Fri
Jim Blickensdorf	O	O	O	O	X
Josh Desmond				O	
Donna Disque	O	O	O	O	O
Adrienne Evans Fernandez	P	X	P	P	O
Faith Hawkins	O	P	O	O	X
Mark Need		X		P	
Mary Jo Schaughnessy	O	O	P	O	O
Steve Volan	X	P	X	P	P
Scott Robinson					

3rd Week	Mon	Tue	Wed	Thu	Fri
Jim Blickensdorf	O	O	O	O	X
Josh Desmond				O	
Donna Disque	O	O	O	O	O
Adrienne Evans Fernandez	P	X	P	P	O
Faith Hawkins	O	P	O	O	X
Mark Need		X		P	
Mary Jo Schaughnessy	O	O	P	O	O
Steve Volan	X	P	X	P	P
Scott Robinson					

4th Week	Mon	Tue	Wed	Thu	Fri
Jim Blickensdorf	O	O	O	O	X
Josh Desmond				O	
Donna Disque	O	P	O	O	O
Adrienne Evans Fernandez	P	X	P	P	O
Faith Hawkins	O	P	O	O	X
Mark Need		X		P	
Mary Jo Schaughnessy	X	O	P	O	X
Steve Volan	X	P	X	P	P
Scott Robinson					

X = Unavailble, O = Open, P = Preferred