



**WALKER**  
PARKING CONSULTANTS

WALKER PARKING CONSULTANTS  
6602 E. 75<sup>th</sup> Street, Suite 210  
Indianapolis, Indiana 46250

Voice: 317.842.6890  
Fax: 317.577.6500  
[www.walkerparking.com](http://www.walkerparking.com)

October 17, 2008

Mr. Larry Lee  
Executive Director  
City of Reading  
613 Franklin Street  
Reading, PA 19602

Mr. Adam Mukerji  
Executive Director  
Reading Redevelopment Authority  
815 Washington Street  
Reading, PA 19601-3960

Re: Downtown Parking Study  
Walker Project No. 14-3563.00

Dear Larry and Adam:

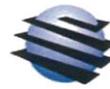
Walker Parking Consultants is pleased to submit the attached report of the 2008 Downtown Parking Study Report for the Reading Parking Authority and the Reading Redevelopment Authority. This report documents our findings and recommendations regarding parking for the downtown area.

We appreciate the opportunity to be of service to you and your respective organizations. If you have any questions or comments, please call.

Sincerely,

WALKER PARKING CONSULTANTS

John W. Dorsett, AICP, CPP  
Senior Vice President



**WALKER**  
PARKING CONSULTANTS

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA

Prepared for:  
READING PARKING  
AUTHORITY  
READING REDEVELOPMENT  
AUTHORITY

PROJECT NO. 14-3563.00

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

## TABLE OF CONTENTS

### LIST OF TABLES

EXECUTIVE SUMMARY .....	ii
INTRODUCTION	
Report Organization .....	1
Study Methodology .....	3
Definition of Terms .....	3
Background .....	4
Reading Parking Authority .....	4
Reading Redevelopment Efforts .....	5
Parking Problem .....	6
Objectives .....	6
Study Area .....	7
SUPPLY/DEMAND ANALYSIS	
Current Conditions .....	9
Leadership Interviews .....	9
Parking Supply .....	9
Effective Parking Supply .....	10
Parking Occupancy .....	13
Occupancy By Zone .....	17
Zone One .....	17
Zone Two .....	17
Zone Three .....	18
Zone Four .....	18
Zone Five .....	19
Parking Adequacy .....	19
Public Parking Occupancy by Location .....	22
Event Parking .....	22
Event Day Occupancy .....	24
License Plate Inventory .....	27
FUTURE PARKING CONDITIONS	
Projected Parking Demand .....	32
Shared Parking Demand .....	34
Future Parking Adequacy .....	36
PARKING SUPPLY & DEMAND REDUCTION ALTERNATIVES ANALYSIS	
Alternate Sites for Future Parking Facilities .....	40
Site Analysis .....	40
General Observations .....	40
Restriping .....	41
Walking Distance .....	41
Alternative Solutions for Expanding Parking Supply ....	42
Minimum Parking Structure Dimensions .....	44

Table 1: Parking Supply Summary	10
Table 2: Effective Parking Supply Summary	12
Table 3: Parking Occupancy Summary	13
Table 4: Parking Occupancy Summary – On-Street	14
Table 5: Parking Occupancy Summary – Public Off-Street	14
Table 6: Parking Occupancy Summary - Private Off-Street	14
Table 7: Zone 1 Occupancy	17
Table 8: Zone 2 Occupancy	18
Table 9: Zone 3 Occupancy	18
Table 10: Zone 4 Occupancy	19
Table 11: Zone 5 Occupancy	19
Table 12: Summary of Current Weekday Peak Parking Adequacy	20
Table 13: Current Peak Parking Adequacy - Weekday	21
Table 14: Public Parking Facilities Occupancy	22
Table 15: Weekday Event Parking Demand	23
Table 16: Weeknight Event Parking Demand	24
Table 17: Weekend Event Parking Demand	24
Table 18: Event Day Occupancy	25
Table 19: Public Parking Occupancy Comparison	26
Table 20: LPI Occupancy Summary	29
Table 21: New Development Assumptions	33
Table 22: Summary of Projected New Parking Demand	35
Table 23: Future Weekday Parking Adequacy by Zone – 5 Year	37
Table 24: Level of Service Conditions	42
Table 25: Minimum Parking Structure Dimensions	44
Table 26: Downtown Garages	45
Table 27: Alternatives Matrix	56
Table 28: Monthly Revenue per Parking Space Needed to Break Even	58
Table 29: TDM Summary	72
Table 30: RPA Historical Statement of Operations	83
Table 31: Debt Summary, year ended December 31, 2007	84
Table 32: Recommended Repair & Replacement Budget	86
Table 33: Conceptual Maintenance and Repair Costs	87
Table 34: Do Nothing Scenario	90
Table 35: Do Nothing Scenario with 800-space Convention Hotel Garage	92
Table 36: 800-space Convention Hotel Garage Project Costs	93
Table 37: 2006 Average Annual Electric Cost by State	96
Table 38: Estimated Operating Expenses	98
Table 39: Proforma Statement of Operations - Proposed 800-space Convention Hotel Garage	99
Table 40: Benchmarking Parking Rates	100
Table 41: Recommended Rate Strategy	101
Table 42: Proforma Statement of Operations - System Rate Increases plus 800-space Convention Hotel Garage	103
Table 43: RPA Posted Rates	124
Table 44: RPA Posted Fines and Penalties	125
Table 45: RPA Poster Parking Enforcement Policy	128
Table 46: Benchmarking Summary	130

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

Parking Structure Alternatives .....	44
Alternative 2A – 2 <sup>nd</sup> & Washington Expansion .....	47
Alternative 2B – Chiarelli Garage Expansion .....	48
2C – Reed & Court Garage Expansion .....	49
2D – BARTA Park N Transit Garage Expansion .....	49
1A – State Lot .....	50
1B – Goggle Works Lot .....	51
Matrix of the Analysis .....	54
Summary of Site Alternatives .....	57
Alternatives to Reduce Parking Demand .....	57
TDM .....	57
The “True Cost” of Parking .....	58
Higher Prices for Parking and Lower Transit Prices .....	60
Ridesharing .....	60
Flex Plan With Cash-out Option .....	61
Bicycle Improvements .....	64
Pedestrian Improvements .....	65
Wayfinding/Signage .....	66
Fee-In-Lieu .....	68
Parking and the Light Rail System .....	68
Free Transit and ECO Passes .....	69
Real Time Transit and Parking Information .....	70
TDM Summary .....	71
THE READING PARKING AUTHORITY	
Background and History .....	74
Parking Operation .....	74
FINANCIAL SUMMARY	
Historical Financial Performance .....	82
Current Debt Obligation .....	84
CAPITAL NEEDS	
Repair/Replacement of Existing Facilities .....	85
New Facilities .....	86
FINANCIAL ANALYSIS	
System Analysis .....	89
Do Nothing .....	89
Do Nothing Plus 800-Space Convention Hotel Garage .....	91
Proposed 800 Space Convention Hotel Garage .....	93
Parking Revenue .....	94
Operating Expenses .....	94
Net Operating Income .....	98
Parking Rate Analysis .....	100

## LIST OF FIGURES

Figure 1: Report Organization	2
Figure 2: Study Area Map	8
Figure 3: Current Occupancy Map	16
Figure 4: LPI Map	28
Figure 5: LPI Hourly Occupancy	30
Figure 6: Length of Stay Summary	31
Figure 7: Future Weekday Occupancy by Zone – 5 Year Projection	38
Figure 8: Future Weekday Occupancy by Zone – 10 Year Projection	39
Figure 9: Expansion Alternatives	53
Figure 10: Tax Increment Financing (TIF)	111

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

Current Rates .....	100
Benchmarking Survey Rates .....	100
Recommendations .....	101

## FINANCING METHODS

Conventional Debt Financing .....	104
General Obligation Bonds.....	104
Revenue Bonds.....	105
Alternative Financing Strategies .....	105
Federal Grants .....	106
Tax-Increment Financing .....	110
Business Improvement Districts .....	111
Parking Tax Districts.....	112
Payment In Lieu.....	115
Development and lease Agreements .....	116
Creation of an Auxiliary Enterprise Fund .....	117

ORGANIZATIONAL STRUCTURE .....	119
--------------------------------	-----

## PARKING POLICIES

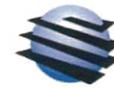
Rate and Fines Structures .....	123
On-Street and Off-Street Policies .....	127
Parking Enforcement Policies .....	127
Parking System Strategic and Business Plans.....	128
Program Administration and Departmental Organization and Structure .....	129
Benchmarking Study .....	129

## APPENDIX

- APPENDIX A: SCOPE OF SERVICES
- APPENDIX B: INVENTORY AND OCCUPANCY DATA
- APPENDIX C: CASE STUDIES
- APPENDIX D: LEADERSHIP INTERVIEWS

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

## TASK 1 – CURRENT AND FUTURE PARKING ADEQUACY

## EXECUTIVE SUMMARY

Although there are times when motorists believe that the downtown parking supply is insufficient, the overall supply of parking in the downtown is adequate during most occasions. We anticipate that the existing parking supply will adequately serve known, prospective developments that may come on line within the next ten years. Parking is relatively tight within the area near the Berks County Courthouse, Berks County Government Center, and Reading City Hall. Parking can be a challenge during large special events held during weekday business hours; however, few events are scheduled during these hours.

To understand the adequacy of the existing parking capacity, field surveys were performed. This includes a parking occupancy study that was conducted during business hours on Wednesday, July 9<sup>th</sup>, 2008, a day represented by the executive director of the Reading Parking Authority ("RPA") to be a typical day with a few exceptions including a special event was not held at the Sovereign Center, the Reading Community College held classes during its less heavily-attended summer session, and some folks were away from the city enjoying a summer vacation. An estimated 11,036 parking spaces were identified through field surveys<sup>1</sup> and 6,434, or 58% of these spaces were occupied during peak weekday business hours, ranging from 9 a.m. to 3 p.m. Therefore, over 4,600 spaces were vacant, many of which are located on the upper floors of parking structures and not visible to the casual motorist driving through the downtown. During weekday business hours, an estimated 90% of the downtown off-street parking demand is created by monthly leaseholders, while transient patrons make up the remaining 10%.

On July 31, 2008, the RPA reportedly had 5,255 leaseholders. These leaseholders have the right to use a single parking space. Taking the total parking capacity controlled by the RPA and deducting those spaces used by transient patrons, leaves an available supply of parking for these leaseholders. The RPA reports that 92% of these spaces available to leaseholders are sold. However, it is very important to note that parking occupancy and the percentage of spaces sold are two entirely different units of measure. Parking occupancy in the downtown is running at 58%. Although 92% of the spaces intended to be used by leaseholders may be sold, the fact of the matter is that there are still 4,600± vacancies. It is perfectly

---

<sup>1</sup> Parking inventory was identified within the bounds of a Study Area roughly bounded by Walnut, 11<sup>th</sup>, Chestnut, and 2<sup>nd</sup> Streets.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

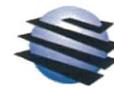
normal and acceptable within the parking industry to oversell spaces. Some facilities are oversold by as much as 60% to account for absentee tenants, who are not present as a result of illnesses, business travels, telecommuting, vacations, and errands, to name a few. It is management's responsibility to regularly monitor parking occupancies and continue to oversell parking until the facility approaches capacity; this is managed on a trial and error basis. The goal is to not turn away a leaseholder. A 92% sales ratio is not the same as the percent occupancy. The RPA should discontinue communicating its sales ratio. Both Reading leaders and the general populace confuse this ratio with parking occupancy. Many people think that the parking occupancy is 92% when they hear that 92% of the spaces are sold.

Contractual obligations may limit the oversell factor in specific garages, thereby rendering an industry standard such as an oversell factor as meaningless; however, regular monitoring in garages not limited by contract enables a manager to control the oversell factor until the garage approaches capacity, thus improving the efficiency of a facility. It is also important for the RPA to consider the renegotiation of contracts as the term of the contract approaches the period for renewal. An ideal contract is one that provides the individual parking patron with a "hunting license" or the privilege of accessing and parking in a facility if a space is available. Contracts that allow subleases reduce the RPA's ability to effectively control the allocation of parking spaces.

The 84-block Study Area was divided into zones to help pinpoint whether certain zones had parking adequacy issues. While specific blocks within each zone of the Study Area experience parking conditions at or near capacity, other blocks within these same zones of the Study Area did not experience high occupancy conditions. No single zone was observed as experiencing parking conditions at or near capacity during days when field observations were performed for this study. Zone 4, the area defined as the Government District and is roughly bounded by Walnut, 9<sup>th</sup>, Franklin, and 6<sup>th</sup> Streets, was 78% occupied during peak weekday business hours. All other zones had peak-hour weekday parking occupancies that ranged from 35 to 53%. One potential remedy to address what some people believe is a parking shortage in Zone 4, the government district, is to relocate some or all of the Berks County and City of Reading employees who park in the Poplar and Walnut and Reed and Court Garages to other parking facilities. Doing so may help support the economic development agenda of both the county and the city

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

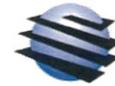
With the exception of the Jehovah's Witness Conventions, the effect of special events parking is very minimal. Weekday evening and weekend parking availability is plentiful since office uses consume about 90% of the off-street parking. Tickets were reportedly sold for only two weekday daytime events and were held at the Sovereign Center over the last three years. One of these events generated parking demand for fewer than 400 cars and the other somewhere between 4,001 and 6,000. During the course of this study, the executive director of the Sovereign Center was quoted as stating that no performances or events have been turned away from the center as a result of a parking-related issue. The RPA has provided shuttle buses during high attendance events to transport Sovereign Performing Arts Center patrons from up to six blocks away. This cost was absorbed by the Parking Authority and was reported to result in a loss of revenues.

During Fridays through Sundays from Memorial Day to Labor Day, a Jehovah's Witness Convention is held with a daily show scheduled during 9 a.m. through 5 p.m. This convention reportedly attracts 7,000 patrons per day, or about 3,000 vehicles. The Jehovah's Witness Organization has been very organized in the past and has successfully helped direct traffic and has assisted its convention attendees find parking. This situation is manageable which is supported by our observed parking occupancy during this convention on Friday, August 22, 2008. The parking demand associated with this convention has been successfully managed in the past and it can continue to be successfully managed. However, extreme care must be exercised upon construction of the Convention Hotel and Garage on the Penn Court Lot; the 504 motorists who lease parking in the 429 spaces will be temporarily displaced to other garages/lots, thereby reducing the available parking during the construction period. Beyond the Convention Hotel Garage, additional parking capacity does not seem to be necessary for the sole purposes of accommodating this convention.

In addition to the July 9<sup>th</sup> parking occupancy study, Walker Parking Consultants observed weekday daytime parking conditions on several other occasions, including Friday, August 22<sup>nd</sup>, 2008, the date of a Jehovah's Witness Convention. Eighty six percent of the parking spaces located within the Study Area were observed; 60% of these spaces were occupied and 40% were vacant. Public parking facilities experienced a 63% occupancy rate and a 37% vacancy rate, suggesting that parking is manageable with this convention.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

Future parking conditions were also evaluated. Prospective development projects were identified through discussions with representatives of the Reading Parking Authority, the Reading Redevelopment Authority, the Reading School District, Boscov's, and the City of Reading. Five- and ten-year projections were subsequently developed considering these development projects. These projections reveal that parking demand is expected to increase by 1,092 spaces within five years and 1,864 spaces within ten years. These anticipated increases are projected to push parking occupancy during peak weekday business hours to 62% within five years and 69% within ten years. These are still modest parking occupancy rates, meaning that the present abundance of parking availability is expected to continue.

It behooves the RPA to address the public's perception of an inadequate supply of parking. To do this, the RPA should engage in a public relations campaign aimed at communicating the abundance of available parking; creating an on-line, real-time webpage that communicates the number and locations of parking spaces; and installing LED signage along major routes and near the entrance of each parking structure to communicate numbers of vacant parking spaces by floor level. A subsequent phase of work is necessary to prepare this signage plan and other accompanying wayfinding guides. We believe that these steps will be more cost effective than the cost associated with increasing parking capacity. Moreover, at present, the RPA's financial posture does not lend itself to building additional parking facilities. The RPA currently has \$56.8 million in outstanding debt and long-term leases and is projecting another \$9.8 million loan/bond in 2009 to pay (in part) for the new 800-space Convention Hotel Garage.

## **TASK 2 – PARKING SUPPLY AND DEMAND REDUCTION ALTERNATIVES**

Two different broad approaches can be taken to address parking adequacy. One approach is to build more parking. The other approach is to reduce parking demand by reducing the number of single occupancy vehicles.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

To decrease parking demand, the community may want to create a transportation management association to spearhead ways of getting people to decrease the use of single occupancy vehicles. The Berks Area Reading Transportation Authority ("BARTA") has performed some limited work in this area and seems to be a natural fit for this task. In recent history, the single occupancy vehicle is by far, the prevalent mode of transportation. Community leaders can decrease future pressure to add more parking capacity by promoting and offering alternative transportation modes to the single occupancy vehicle. Following are several strategies that offer people choices and that may be pursued to reduce parking demand:

- Pricing parking to reduce demand;
- Parking cash-out;
- Ride-matching services;
- Car- and van-pooling,
- Bicycling improvements;
- Pedestrian improvements;
- Discounted transit fares;
- Increased availability of transit;
- Wayfinding improvements; and
- Payment in-lieu of parking fees.

In addition to the planned 800-space Convention Hotel Garage, several alternatives to adding parking capacity were identified and analyzed. A site analysis identified and evaluated the pros and cons associated with the following six potential opportunities to expand existing or build new structured parking facilities:

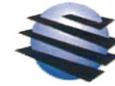
- Expand the 2<sup>nd</sup> & Washington Garage;
- Expand the Chiarelli Garage;
- Expand the Reed & Court Garage;
- Expand the BARTA P-N-T Garage;
- Build a new structure on the Goggle Works Lot; and
- Build a new structure on the State Lot.

## TASK 3 – FINANCIAL PLANNING AND REVIEW OF ORGANIZATIONAL STRUCTURE

The City of Reading is encouraged to kick the habit of transferring RPA funds to the City of Reading's general fund. This practice may help balance the city's budget in the short-term; however, in the long-term, this will weaken the RPA to the point of collapse. The RPA needs to reinvest positive cash flows into the maintenance of existing facilities

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

and the development of new facilities and/or programs, including those associated with new parking access and revenue control equipment, LED signage, enhancements and upgrades, and a sinking fund for structural maintenance and repairs. The RPA needs savings for a rainy day such as emergency repairs. The exercise of transferring funds from the RPA to the City of Reading's general fund negates one of the primary strengths of having a parking authority and is contrary to the motives for establishing a parking authority in the first place. If the City of Reading regularly makes this transfer, then there might as well be a city parking department and not a parking authority.

The advantages that are offered by a parking authority versus a city parking department are numerous and include the following:

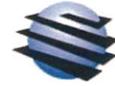
- A parking authority can operate independently of the city government;
- A parking authority can have fewer political pressures than are faced by a city administration;
- The parking authority does not have to compete with other city departments for resources but a city parking department may have to compete with these other departments;
- Although the board members of the parking authority are appointed by the mayor, the city council cannot control the parking authority; and
- A parking authority's debt does not count against the city's legal debt capacity.

The RPA management and staff appear to be doing a good job of building a solid financial position, motivated at least partially by increasing operating expenses, capital needs, and debt service. From 2003-2007, operating and administrative expenses have been held to an average of 3.9% per year, compounded annually. Comparatively, operating revenues have increased an average of 8.9% per year, compounded annually, over this same time period. The revenue increase is largely attributed to more vigorous parking enforcement, a rate increase in 2004, the vertical expansion of the 4<sup>th</sup> and Cherry Garage, and the addition of the 2<sup>nd</sup> and Washington Garage. Net income increased from \$486,204 during Fiscal Year 2003 to \$2,674,467 during Fiscal Year 2007.

The RPA reportedly had \$4.8 million and \$5.9 million in cash on hand at the end of Fiscal Years Ending December 31, 2006 and 2007, respectively. Operating expenses in 2007 for its eight (8) parking structures and four (4) surface lots were \$2,632,474 which

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

equates to \$496 per structured space. This compares reasonably with Walker's operating expense database of about \$600 per space annually for over 200 structured parking facilities and suggests that RPA management is doing a good job of controlling expenses.

The administration of the City of Reading is working to balance its operating budget. Faced with anticipated budgetary shortfalls in 2009, the mayor has requested that the local authorities, including the RPA, transfer funds to the city's general fund. Specifically, in July of 2008, the mayor requested that the RPA make an upfront contribution of \$8 million plus \$1 million per year. The RPA administration countered with an initial offer of \$4 million and then in September of 2008, the city administration countered with a request for a \$5.835 million lump sum payment plus a \$1.4 million annual payment. This type of contribution would empty the coffers of the RPA, restrict its ability to improve its facilities and expand its system, and put it at risk for not being able to weather a crisis.

In Fiscal Year 2007, the RPA reported \$7.8 million in operating revenues, \$3.7 million in operating and administrative expenses, \$1.4 million in debt service and long-term lease obligations, and \$2.7 million in net income. Although the RPA earned a healthy \$2.7 million in net income, this is a short-lived result. The RPA is anticipating a significant uptick in financial responsibilities over the next several years as a result of the following commitments:

- The RPA's debt service and long-term lease obligations increased from \$2.8± million in FY2007 to \$3.4± million in FY2008. The \$3.4± million annual obligation continues through FY2022 and excludes the RPA's joint participation in the development of an 800-space parking facility on the Penn Court Lot.
- The RPA is reportedly budgeting \$50,000 to \$75,000 per year on structural maintenance for its existing facilities, including ownership in nine parking structures that contain over 6,000 spaces and average about 25 years of age. This equates to less than \$13 per space annually, which is significantly less than the \$75 per space annually that is often suggested by Walker Parking Consultants. We recommend that the RPA budget \$876,000 annually for facility enhancements and structural repairs. Facilities must be properly maintained to preserve the asset that is required to

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

generate the revenue stream upon which the RPA depends to meet its financial obligations.

- The RPA has committed to financially support a portion of the construction of an 800-space parking facility at the location of the existing Penn Court Lot. Specifically, this financial commitment is in the vicinity of \$10 million, including \$9 million of the project's construction costs, \$200,000 of the land costs, and half of the project's soft costs such as geotechnical fees, design fees, and parking access and revenue control equipment. The parking garage will support a new 200-room hotel that will reportedly contain convention facilities. The proposed garage will displace the 429-space Penn Court Lot that is part of the RPA's system. An additional 200 spaces of the garage will be reserved exclusively for hotel use and will not generate revenue for the RPA. The 800-space garage is projected to generate in the ballpark of \$475,000± in annual operating revenues. Contrasted with annual operating expenses of \$462,000± and an assumed average annual debt service of \$538,000± in association with the RPA's 60% capital contribution, means that the RPA can expect a financial loss of \$525,000± per year on this facility.

Combined, these three events represent \$4.3 million, which exceeds FY2007's net income of \$2.7 million. In conclusion, the RPA is simply unable to prudently fund a \$5.835 million contribution to the city while at the same time, oblige its ongoing operating costs, service its debt, and adequately maintain its facilities, not to mention acting prudently by having cash on hand for an emergency. A \$4 million contribution to the city is workable; however, without changes to operating policies, that contribution is possible only through a cash balance which would be exhausted and therefore unavailable beyond Year 2009. The RPA must appropriately manage its risk by regularly investing in its facilities to ensure their safety and it must continue to regularly set aside funds for emergencies.

The RPA seems to be adequately enforcing parking regulations. However, when parking tickets are sent to the district justice for adjudication, the result is reportedly a 20%<sup>2</sup> collections rate; this is an issue that needs to be resolved with the legal system. The RPA will soon be testing the use of photographs on parking tickets in the hopes that the pictures will decrease the number of motorists' appeals, reduce

---

<sup>2</sup> Payment rates with tickets at the Parking Authority are approximately 68%.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

the number of dismissed tickets, and increase the collections rate. Each ticket will include up to three black-and-white photographs documenting a violation.

The RPA's organizational structure is adequate and we do not recommend any changes to this structure.

## TASK 4 – PARKING POLICIES

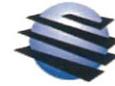
The RPA's rate structure is relatively consistent with neighboring parking authorities. The RPA reports that rates have historically been designed to be affordable and to encourage parking throughout the city, balancing cost and service with the public's ability to pay.

On- and off-street parking rates must be coordinated and not set independently of one another. Specifically, on-street parking should cost more than off-street parking. We recommend the following changes to parking rates:

- Increase on-street rates from the current rates of 50¢ and 75¢ per hour to \$2.00 per hour. To avoid forcing people to walk around with rolls of quarters, this rate increase would likely necessitate that the RPA replace the existing meters with new meters able to accept smart cards and/or credit cards, instead of repairing them. This expenditure would require significant capital that could be quickly recouped through the rate increase. However, cash flow may be issue in light of the City of Reading's request for a cash infusion.
- Increase off-street daily parking rates to \$2.00 for the 1<sup>st</sup> hour and \$1.50 each additional hour.
- Expand the RPA's existing tiered rate structure for monthly permit rates with higher rates in zones with higher parking occupancy. (The tiers shown in the table below correspond with the five different zones presented within this report.)
- Upon contract expirations, renew permits at market rates.
- Increase monthly rates.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

## Recommended Parking Rates

Pricing Tier	Zones	On-Street	Daily Off-Street			Regular	Reserved
		Hourly	First Hour	Add'l Hour	Daily Max	Monthly	Monthly
Tier 1	4	\$2.00	\$2.00	\$1.50	\$10.00	\$92.00	\$184.00
Tier 2	2,3,5	\$2.00	\$2.00	\$1.50	\$8.00	\$88.00	\$176.00
Tier 3	1	\$2.00	\$2.00	\$1.50	\$8.00	\$69.00	\$138.00

Notes: Rates should be increased to keep pace with inflation. Rates do not have to be increased every year, but when they are increased, rates should be increased to account for inflation during any skipped years.

These parking rate adjustments are projected to add about \$1 million per year to operating revenues.

Fines are generally reasonable and do not compare unfavorably with other cities. We recommend increasing the fine for illegal parking in an accessible space from \$75 to \$250 and the fine for any overtime parking from \$12 to \$25.

Another capital need of the RPA is parking access and revenue control equipment. The RPA employs a wide range of revenue collection methods, including automation. The RPA has limited automation at most of its facilities. One facility has significant automation. Two garages have pay-on-foot revenue collection without booth attendants. One location has automated vehicle identification. Other locations do not provide the ability to monitor usage and adequately control revenues. The recommended average life of parking access and revenue control equipment ranges from 7-10 years. Much of the RPA's equipment exceeds this guideline and should be replaced.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

The City of Reading, Pennsylvania ("City") is currently evaluating the parking needs within the downtown area. The City has retained Walker Parking Consultants ("Walker") to conduct an analysis of the current and future parking supply and demand to determine the adequacy of the parking system. In addition to evaluating supply and demand, Walker reviewed several supply and demand reduction alternatives, and Reading's parking policy, organizational structure and financial planning.

## INTRODUCTION

### REPORT ORGANIZATION

This report provides an orderly presentation of the project information available at the time the study was conducted. This organizational method was implemented to aid the reader in comprehending the analysis supporting all recommendations within this report.

This report is organized in four main sections: a supply/demand analysis, an examination of parking demand-reduction and supply expansion alternatives, financial planning and a review of the organizational structure, and an assessment of parking policies.

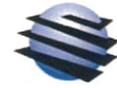
The supply/demand analysis provides a report of the current parking supply and recent trends in parking occupancy. Based on Walker-generated field data and redevelopment plans provided by local representatives, future parking demand projections are made over the next five and ten years. Based on these projections and comparisons to the current parking supply, Walker quantified the number of parking spaces required to support future growth.

The parking demand-reduction and supply expansion alternatives analysis is an identification and evaluation of different options for reducing parking demand and/or increasing parking capacity. Each option is described in terms of location, capacity, design, cost and proximity to a major demand generator. Additionally, this section identifies and evaluates various transportation demand management strategies available to the community.

During the financial planning and review of organizational structure task, future costs to own and operate the authority-owned parking system are projected. Moreover, recommended parking rate adjustments are presented to carry out RPA's strategic objectives while at the same time, responsibly operate and maintain the authority's parking assets. To study various methods of financing and organizational structures to enable the RPA to fund its future parking infrastructure projects.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



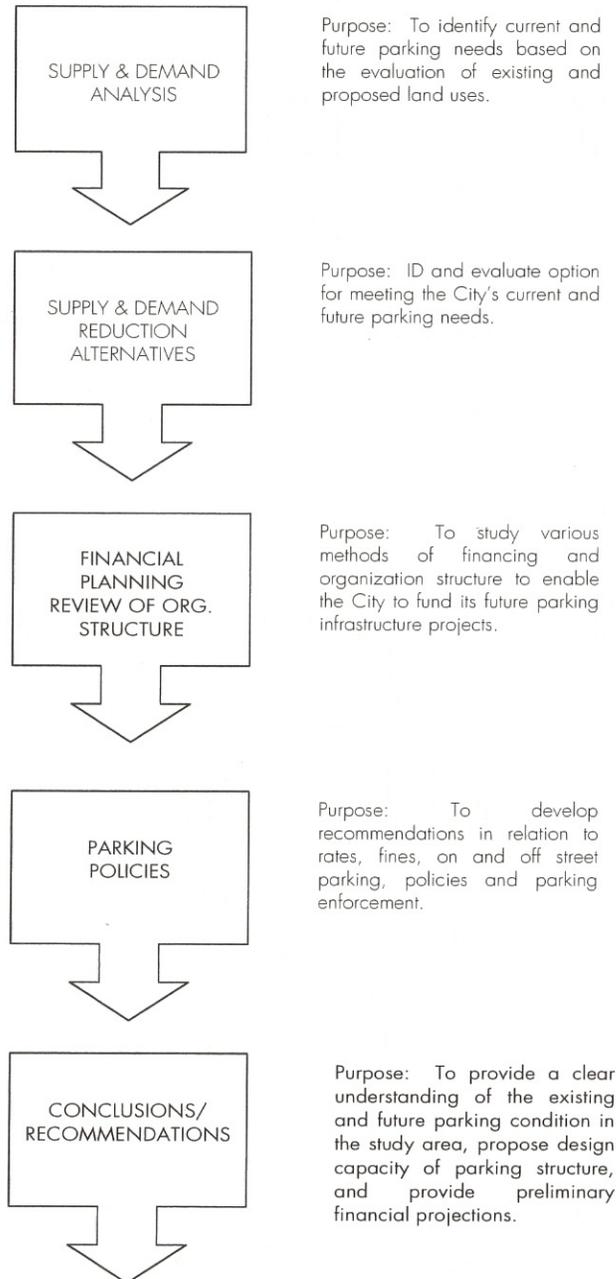
**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

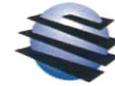
PROJECT #14-3563.00

A review of the RPA's parking policies includes developing an understanding of Reading's policies with regards to enforcement, rate and fines structures, financial statements, logistical problems, and recommend improvements to the current system.

**Figure 1: Report Organization**



Source: Walker Parking Consultants



OCTOBER 17, 2008

PROJECT #14-3563.00

## STUDY METHODOLOGY

In order to complete the objectives of this study, Walker conducted a physical inventory of all parking spaces within a defined geographical area of study. The inventory was tabulated by block and categorized by on-street vs. off-street, public or private, and surface or garage. Occupancy counts were taken, resulting in a tabulation of the physical number of vehicles found utilizing parking spaces. A count was taken on July 9, 2008, between 9:00 a.m. and 3:00 p.m. The date was selected to capture peak activity in the downtown area. By comparing the supply with the observed occupancy of the parking facilities on a block-by-block basis, Walker was able to determine the occupancy levels of each block and quantify specific demand for each block.

## DEFINITION OF TERMS

Several terms are used in this report that might be considered parking jargon and thus not readily understood by the reader. Definitions of these terms are presented below.

- *Inventory* – The total number of parking spaces identified and counted during survey day observations. The intent of this study is to account for all parking within a defined geographical area of study.
- *Effective Supply* – The inventory adjusted by the optimum utilization factor.
- *Optimum Utilization Factor* – The occupancy rate at which a parking facility operates at peak efficiency. This factor allows patrons to spend less time looking for the last available spaces and allows for the dynamics of vehicles moving in and out of spaces. It also allows for spaces lost to poor or improper parking, snow removal, derelict vehicles, and spaces lost for repair.
- *Demand* – The number of spaces required to satisfy visitor, employee and resident needs on a given day.
- *Occupancy (Counts)* – The number of vehicles observed parked on a survey day.
- *Peak Occupancy* – The peak occupancy is intended to capture the typical maximum capacity of the parking system observed during weekday business hours.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

- *Parking Adequacy* – The difference between parking supply and demand.
- *Demand Generator* – Any building, structure, business or attraction that brings individuals into the downtown, thereby increasing parking demand and occupancy.
- *Survey Day* – The day that the parking occupancy counts were conducted.
- *Shared Parking* - Shared parking is the use of a parking space by vehicles generated by more than one land use. The ability to share parking spaces is the result of two conditions:
  - Variations in the accumulation of vehicles by hour, by day or by season at the individual land uses.
  - Relationships among the land uses that result in visiting multiple land uses on the same auto trip.

## BACKGROUND

### READING PARKING AUTHORITY:

- The Reading Parking Authority's inventory of parking consists of over 6,000 off-street and 1,100 on-street spaces.
- The Reading Parking Authority transfers profits from its operations to the city. Construction and major expenses incurred by the Reading Parking Authority are funded by the City of Reading ("City"). Source: Reading Parking Authority.
- Revenues generated by the Authority's eight parking structures vary widely according to location. Year 2007 transient revenues ranged from \$395,000 at the 500-space Reed and Court Garage to \$34,000 at the 4<sup>th</sup> and Cherry. Source: Reading Parking Authority



## READING REDEVELOPMENT EFFORTS:

The success of the following redevelopments efforts could change the parking demand within the downtown and impact the operations of the RPA:

- The Reading Downtown Improvement District – The Reading Downtown Improvement District was created in 1995 with the purpose of providing services that are beyond those provided by the City. Their services include providing additional custodial services and security within the improvement district to enhance downtown visitation and economic development. Source: *Berksweb*
- Initiative for a Competitive Greater Reading – The Initiative for a Competitive Greater Reading was launched in 2004 as a collaborative project of government, business, and community leaders to strengthen downtown Reading's economic development by creating job opportunities for Reading's residents. Source: Berks County Foundation.
- RiverView – RiverView's vision is to create an environment where the Berks County Community comes together to enjoy living, playing, and working on both sides of the Schuylkill River. Source: RiverView
- Reading School District – Through discussions with the School District's director of facilities, we understand that all of the school district's projects will reportedly contain off-street parking on site. Specific discussions were had regarding the Jewish Community Center (Hamden Boulevard), Hershey (NE corner of 8<sup>th</sup> & Walnut), Reading Opportunity Center ("ROCK") (SE corner of 8<sup>th</sup> & Penn), and St. Joseph's Hospital (between 12<sup>th</sup> and 13<sup>th</sup> Streets). The Jewish Community Center is being redeveloped into a magnet school, the former Hershey's site is being developed into three elementary schools, the Reading Opportunity Center will be a special education and bilingual education center, and the former St. Joseph's Hospital is being converted to a junior high school for 9<sup>th</sup> and 10<sup>th</sup> graders. All of these developments will reportedly require limited parking that will be provided off-street and on site. The ROCK will reportedly need about 40 spaces. The other three properties are located outside of our geographic area of study.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

The School District's assistant superintendent sent a letter dated October 3, 2008 to the RPA expressing a desire to secure parking spaces at the Cherry Street Lot for professional development taking place at the 8<sup>th</sup> and Penn ROCK Center. The number of parking spaces was reportedly determined based on professional development dates and time. The School District requested the utility of parking at the Cherry Street Lot for full days, 8:00 a.m. through 4:00 p.m., for ten days out the calendar year. Additionally, the School District is securing parking up to 50 spaces for professional development, after instructional hours, from 3:00 p.m. through 5:00 p.m., ten days per year. The RPA has agreed to accommodate this request by providing parking in the BARTA PNT Garage.

The City of Reading, Pennsylvania is expecting major growth in the next 18-24 months with the addition of the prospective RiverView development and many restaurants in the downtown area.

## **PARKING PROBLEMS**

The City of Reading reportedly has a parking shortage during the afternoon hours due to the high number of employees who park in the downtown area of the City. Restaurant owners also reportedly have problems building a customer base due to the lack of parking spaces. Event parking has also reportedly been a problem. Parking congestion is assumed to increase with many new developments planned for Reading, including the RiverView development.

The ad hoc steering committee assembled for this study by the RPA and RRA agreed that data collection should focus on workweek business hours. Weekend parking is not currently a problem; however, parking problems are expected to increase at all times with the future developments.

A master plan for the City was recently completed by Sasaki Associates. A transportation study has also been completed for the City and the surrounding areas.

## **OBJECTIVES**

- To quantify the city's current and future parking needs.
- To identify and evaluate options for meeting the city's current and future parking needs.
- To project future costs to own and operate the authority-owned parking system and to determine parking rate adjustments

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT #14-3563.00

necessary to carry out city's strategic objectives while at the same time, responsibly operating and maintaining the authority's parking assets. To study various methods of financing and organizational structures to enable the RPA to fund its future parking infrastructure projects.

- To develop an understanding and series of recommendations regarding parking policies and objectives, parking rates and fines, the proper function of a department to handle on and off-street parking, how parking revenues might be used to enhance the RPA's parking program, and enforcement policies.

## STUDY AREA

For purposes of analysis, a geographic area of study was identified and is referred throughout this document as the "Study Area." The Study Area consists of approximately 84 city blocks generally located in the central business district of Reading, Pennsylvania. The Study Area was generally bordered by Walnut Street to the North, 11<sup>th</sup> Street to the East and Chestnut Street to the South and 2<sup>nd</sup> Street to the West. Walker was also asked to consider the Front Street Garage and the adjacent movie theater located at the southwest corner of 2<sup>nd</sup> Street and Washington Street. A map of the complete Study Area is detailed in the following figure.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

## CURRENT CONDITIONS

This section of the report documents our understanding of the current parking characteristics of the Study Area. The information contained herein serves as the basis for analysis of the parking supply and needs of the Study Area. Included in this section is a discussion of parking supply, effective supply, observed parking occupancy, current parking demand and the dynamics of the parking system.

### LEADERSHIP INTERVIEWS

Walker conducted interviews with representatives of some of the following organizations: BARTA, Berks County Office of Community and Economic Development, Berks Economic Partnership, City of Reading, Initiative for a Competitive Greater Reading, Reading Downtown Improvement District, Reading Parking Authority, Sovereign Center & Performing Arts, Reading School District and RiverPlace Development Corporation. Walker queried these key organizations on topics that included current and future parking challenges, the role of the Reading Parking Authority and parking associated with the Sovereign Center. The responses to these questions can be found in Appendix D.

### PARKING SUPPLY

The foundation of a parking supply and demand study is an inventory of the existing parking supply. Parking in the Study Area is available in several forms. On-street parking is offered at no charge for mostly two-hour time limits. For the most part, on-street parking was signed and restrictions were clearly marked. Off-street parking is available to the public in lots, which are both publicly- and privately-owned facilities. Private parking is available for specific user groups in lots and is often restricted for use by the individual businesses. Observations indicated that many businesses offer free parking to their visitors.

The inventory is compared to the parking demand to quantify the existence of a parking surplus or deficit. A surplus exists when the supply exceeds the demand; a deficit exists when the supply is inadequate to meet the demand. We conducted this analysis on a block-by-block basis within the Study Area, segmenting the demand by block.

Based on the data Walker collected, there are a total of 11,036± spaces in the Study Area. Following is a breakdown of these spaces: 1,618± are on-street and 9,418± are off-street. Of the off-street spaces, 6,379± are open to the public and 3,039± are private or

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

restricted-use spaces. The garage under the Berks County Courthouse was not included in Walker's inventory of available parking in the downtown area due to restricted access to the garage<sup>3</sup>. The table below summarizes the parking supply by zone. A complete block-by-block listing of the parking supply is listed in Appendix B.

**Table 1: Parking Supply Summary**

Zone	Public Lot	Public Garage	Private Lot	Private Garage	Off-Street Supply	On-Street Supply	Total Supply
1	0	350	538	0	888	265	1,153
2	0	934	813	0	1,747	255	2,002
3	118	935	416	0	1,469	219	1,688
4	708	2,484	531	125	3,848	219	4,067
5	0	0	616	0	616	660	1,276
<b>Subtotal</b>	<b>826</b>	<b>4,703</b>	<b>2,914</b>	<b>125</b>	<b>8,568</b>	<b>1,618</b>	<b>10,186</b>
IMAX Garage	100	0	0	0	100	0	100
Garage	0	750	0	0	750	0	750
<b>Subtotal</b>	<b>100</b>	<b>750</b>	<b>0</b>	<b>0</b>	<b>850</b>	<b>0</b>	<b>850</b>
<b>Total</b>	<b>926</b>	<b>5,453</b>	<b>2,914</b>	<b>125</b>	<b>9,418</b>	<b>1,618</b>	<b>11,036</b>

Walker Parking Consultants, 2008

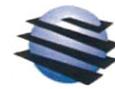
## EFFECTIVE PARKING SUPPLY

The inventory of parking within the Study Area is adjusted to allow for a cushion necessary for vehicles moving in and out of spaces, and to reduce the time necessary to find the last few remaining spaces when the parking supply is nearly full. We derive the effective supply by deducting this cushion from the total parking capacity. The cushion allows for vacancies created by restricting parking spaces to certain users (reserved spaces), misparked vehicles, minor construction and debris removal. A parking supply operates at peak efficiency when parking occupancy, including both transient and monthly parking patrons, is 85 percent to 95 percent of the supply. When occupancy exceeds this level, patrons 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.

<sup>3</sup> Walker has estimated the capacity of the garage below the courthouse at approximately 200 stalls based on the square footage of the County Courthouse. These spaces have not been included in the Study Area's total parking supply.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

As a result, the effective supply is used in analyzing the adequacy of the parking system rather than the total supply or inventory of spaces. Following are some factors that affect the efficiency of the parking system:

- Capacity – Large, scattered surface lots operate less efficiently than a more compact facility, such as a parking structure, which offers consolidated parking in which traffic generally, passes more available parking spaces in a more compact area. Moreover, it is more difficult to find the available spaces in a widespread parking area than a centralized parking facility.
- Type of users – Monthly or regular parking patrons can find the available spaces more efficiently than infrequent visitors because they are familiar with the layout of the parking facility and typically know where the spaces will be available when they are parking.
- On-street vs. off-street – On-street parking spaces are less efficient than off-street spaces due to the time it takes patrons to find the last few vacant spaces. In addition, patrons are typically limited to one side of the street at a time and often must parallel park in traffic to use the space. Many times on-street spaces are not striped or are signed in a confusing manner, thereby leading to lost spaces and frustrated parking patrons.

The size of the cushion is dependent on the type of user and facility. On-Street parking is adjusted by an 85 percent effective supply factor (EFS), because of the relative difficulty of finding an open space while negotiating traffic. Public off-street parking is adjusted by a 90 percent EFS to account for user unfamiliarity and the challenges of safely navigating the area while searching for a space. Private off-street parking is adjusted by a 95 percent EFS because employees or repeat users are familiar with the area and generally park in the same location each day. The Study Area contains a total of 11,036± spaces before any adjustments are made to account for an effective supply. After the effective supply factor is applied to the overall supply numbers, the Study Area's effective supply is 10,010± spaces, as shown in Table 2. Details by block are located in the appendix.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

**Table 2: Effective Parking Supply Summary**

Zone	Off-Street Public Supply	Effective Supply Factor	Off-Street Public Effective Supply	Off-Street Private Supply	Effective Supply Factor	Off-Street Private Effective Supply	On-Street Supply	Effective Supply Factor	On-Street Effective Supply	Total Effective Supply
1	350	0.90	315	538	0.95	512	265	0.85	226	1,053
2	934	0.90	841	813	0.95	774	255	0.85	217	1,832
3	1,053	0.90	948	416	0.95	396	219	0.85	187	1,531
4	3,192	0.90	2,873	656	0.95	624	219	0.85	187	3,684
5	0	0.90	0	616	0.95	585	660	0.85	560	1,145
<b>Subtotal</b>	<b>5,529</b>	<b>0.90</b>	<b>4,977</b>	<b>3,039</b>	<b>0.95</b>	<b>2,891</b>	<b>1,618</b>	<b>0.85</b>	<b>1,377</b>	<b>9,245</b>
IMAX	100	0.90	90	0	0.95	0	0	0.85	0	90
Garage	750	0.90	675	0	0.95	0	0	0.85	0	675
<b>Subtotal</b>	<b>850</b>	<b>0.90</b>	<b>765</b>	<b>0</b>	<b>0.95</b>	<b>0</b>	<b>0</b>	<b>0.85</b>	<b>0</b>	<b>765</b>
<b>Total</b>	<b>6,379</b>	<b>0.90</b>	<b>5,742</b>	<b>3,039</b>	<b>0.95</b>	<b>2,891</b>	<b>1,618</b>	<b>0.85</b>	<b>1,377</b>	<b>10,010</b>

Walker Parking Consultants, 2008

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



OCTOBER 17, 2008

PROJECT # 14-3563.00

## PARKING OCCUPANCY

To determine the parking patterns of patrons in the Study Area, the usage of the majority of parking facilities located in the Study Area was evaluated. An understanding of these parking patterns helps define both patron types and parking locations. Occupancy counts were taken for all on- and off-street parking spaces on Wednesday, July 9<sup>th</sup>, 2008. The date was representative of a typical weekday in Reading. Walker recognizes that while the survey day represents a "typical day" for the overall downtown area, there may be a specific land use, such as the Reading Area Community College, that did not generate a typical level of demand. A second possible example is the IMAX Theater which generates its peak demand during evening and weekend hours, a time when most downtown parking is widely available. Peak demand created by the movie theater necessarily forces the RPA to hold spaces for the IMAX instead of leasing these spaces to monthly patrons during weekday business hours.

One count was taken between 9:00 a.m. and 3:00 p.m. The following table summarizes the observed occupancy rates for on-street and off-street parking by zone. Specific occupancy numbers, on a block-by-block basis are listed in the Appendix B.

**Table 3: Parking Occupancy Summary**

Zone	Supply	Occupancy	Occupancy %
1	1,153	408	35%
2	2,002	886	44%
3	1,688	757	45%
4	4,067	3,184	78%
5	1,276	675	53%
<i>Total</i>	<i>10,186</i>	<i>5,910</i>	<i>58%</i>
Extended Study Area			
IMAX	100	59	59%
Garage	750	465	62%
<i>Subtotal</i>	<i>850</i>	<i>524</i>	<i>62%</i>
<b>Total</b>	<b>11,036</b>	<b>6,434</b>	<b>58%</b>

Walker Parking Consultants, 2008

Occupancy rates as a whole do not indicate a shortage of parking. Overall, peak occupancy occurred with 6,434± vehicles parked or 58 percent occupancy. On-street and public off-street spaces were occupied at higher percentages (61 and 61, respectively) than the overall rate. The tables below illustrate the observed occupancy for on-street, public off-street and private off-street parking by zone. Most

The optimum utilization for parking is 85 to 90 percent.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

of the demand during the weekday daytime is generated from the high concentration of office and retail uses in Zone 4 of the Study Area.

**Table 4: Parking Occupancy Summary – On-Street**

Zone	Supply	Occupancy	Percentage
1	265	159	60%
2	255	164	64%
3	219	93	42%
4	219	114	52%
5	660	449	68%
<b>Total</b>	<b>1,618</b>	<b>979</b>	<b>61%</b>

Walker Parking Consultants, 2008

**Table 5: Parking Occupancy Summary – Public Off-Street**

Zone	Supply	Occupancy	Percentage
1	350	39	11%
2	934	365	39%
3	1,053	396	38%
4	3,192	2,598	81%
5	0	0	0%
<b>Total</b>	<b>5,529</b>	<b>3,398</b>	<b>61%</b>
IMAX	100	59	59%
Garage	750	465	62%
<b>Subtotal</b>	<b>850</b>	<b>524</b>	<b>62%</b>
<b>Total</b>	<b>6,379</b>	<b>3,922</b>	<b>61%</b>

Walker Parking Consultants, 2008

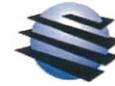
**Table 6: Parking Occupancy Summary - Private Off-Street**

Zone	Supply	Occupancy	Percentage
1	538	210	39%
2	813	357	44%
3	416	268	64%
4	656	472	72%
5	616	226	37%
<b>Total</b>	<b>3,039</b>	<b>1,533</b>	<b>50%</b>

Walker Parking Consultants, 2008

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

The optimum utilization for parking is 85 to 90 percent. As parking occupancy exceeds this level, it becomes problematic. Looking at the off-street public parking areas on a block by block basis, the absolute peak occupancy was observed in Zone 3, Block 33, with 88 percent occupancy. This block includes the Poplar-Walnut Garage.

The map on the following page color codes the overall observed occupancy. Blocks in red have the highest occupancy.



## OCCUPANCY BY ZONE

Even though an overall surplus of parking in downtown Reading exists, there are localized parking shortages. . While specific blocks within each zone of the study area may experience parking conditions at or near capacity, other blocks within the same zones of the Study Area did not experience high parking occupancy conditions. No single zone during our observation experienced parking conditions at or near capacity the days Walker performed occupancy counts.

In order to identify the downtown areas with high levels of localized demand, further analysis is completed by zone.

### ZONE 1

Parking in Zone 1 is evenly distributed among on-street; public off-street; and small, private, off-street surface lots; reflecting the presence of residential and supportive service and retail uses which dominate this zone. Weekday parking occupancy peaked with 64% or 734 spaces occupied.

**Table 7: Zone 1 Occupancy**

Supply	Type	Occupancy
265	On-Street	159
350	Public Off Street	365
538	Private Off-Street	210
1,153	Occupancy (#)	734
	Occupancy (%)	64%

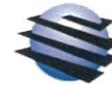
Walker Parking Consultants, 2008

### ZONE 2

Parking in Zone 2 consists primarily of public off-street garages, reflecting an increased presence of commercial office uses when compared to Zone 1. The public garages were located on Blocks 8 and 21. There were also a number of small, private, off-street surface lots supporting retail in the area. Weekday parking occupancy peaked with 44% or 886 spaces occupied. When the IMAX and Front Street Garage are included in the occupancy counts, weekday parking occupancy peaked at 49% or 1,404 spaces occupied.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

**Table 8: Zone 2 Occupancy**

Supply	Type	Occupancy
255	On-Street	164
934	Public Off-Street	365
813	Private Off-Street	357
2,002	Occupancy (#)	886
	Occupancy (%)	44%
100	IMAX	59
750	Garage	459
850	Subtotal	518
2,852	Occupancy (#)	1,404
	Occupancy (%)	49%

Walker Parking Consultants, 2008

## ZONE 3

Parking in Zone 3 consists primarily of a public off-street garage and small, private, off-street surface lots, reflecting the presence of residential and supportive service and retail uses. Block 1 of this zone contains the attraction, Goggle Works, and accounts for a large portion of the private off-street parking. Peak parking occupancy was observed with 45% or 757 spaces occupied.

**Table 9: Zone 3 Occupancy**

Supply	Type	Occupancy
219	On-Street	93
1,053	Public Off-Street	396
416	Private Off-Street	268
1,688	Occupancy (#)	757
	Occupancy (%)	45%

Walker Parking Consultants, 2008

## ZONE 4

Parking in Zone 4 consists primarily of public off-street surface lots and structures, reflecting a large presence of commercial uses. Weekday parking occupancy peaked at with 78% or 3,184 spaces occupied. The Sovereign Center, located in this zone, was not hosting an event at the time of the count. It is important to note that Walker included

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

estimated numbers for the garage under the Berks County Court House in the supply or demand of Zone 4 due to its restricted access.

**Table 10: Zone 4 Occupancy**

Supply	Type	Occupancy
219	On-Street	114
3,192	Public Off-Street	2,598
656	Private Off-Street	472
4,067	Occupancy (#)	3,184
	Occupancy (%)	78%

Walker Parking Consultants, 2008

## ZONE 5

Parking in Zone 5 consists primarily of on-street, and small, private off-street surface lots, reflecting the primarily residential uses located in this zone. Weekday parking occupancy during business hours was observed at 53%, which represents 675 occupied spaces.

**Table 11: Zone 5 Occupancy**

Supply	Type	Occupancy
660	On-Street	449
0	Public Off-Street	0
616	Private Off-Street	226
1,276	Occupancy (#)	675
	Occupancy (%)	53%

Walker Parking Consultants, 2008

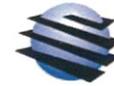
It should be noted that while some blocks were observed at over 100% occupancy during the peak demand period, such as blocks 39, 42 and 77 in Zones 4 and 5, adjacent blocks were at 50% occupancy or lower.

## PARKING ADEQUACY

Parking adequacy is the ability of the parking supply to accommodate the parking demand. In the case of the Study Area, the demand was estimated based on the observed peak parking occupancy counts, and adjusted for seasonality. The peak observation occurred during the weekday daytime count. The observed occupancy was subtracted from the effective supply to determine the adequacy for the study area.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

The parking adequacy for the Study Area by type is summarized in the following table.

**Table 12: Summary of Current Weekday Peak Parking Adequacy**

Zone	Total Effective Supply	Peak Demand	Adequacy
1	1,053	408	645
2	1,832	886	946
3	1,531	757	774
4	3,684	3,184	500
5	1,145	675	470
<i>Subtotal</i>	<i>9,245</i>	<i>5,910</i>	<i>3,335</i>
Extended Study Area			
IMAX	90	59	31
Garage	675	465	210
<i>Subtotal</i>	<i>765</i>	<i>524</i>	<i>241</i>
<b>Total</b>	<b>10,010</b>	<b>6,434</b>	<b>3,576</b>

Walker Parking Consultants, 2007

As a whole, the current parking system has a surplus of 3,576± spaces during peak occupancy, which occurs during weekday business hours. Actual vacancies number 4,600± spaces. On-street parking has the lowest adequacy, with a 398-space surplus. The table on the following page provides a summary of the current parking adequacy by zone.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

Table 13: Current Peak Parking Adequacy - Weekday

Zone	On-Street			Public Off-Street			Private Off-Street		
	Effective Supply	Occupancy	Adequacy	Effective Supply	Occupancy	Adequacy	Effective Supply	Occupancy	Adequacy
1	226	159	67	315	39	276	512	210	302
2	217	164	53	841	365	476	774	357	417
3	187	93	94	948	396	552	396	268	128
4	187	114	73	2,873	2,598	275	624	472	152
5	560	449	111	0	0	0	585	226	359
<i>Subtotal</i>	<i>1,377</i>	<i>979</i>	<i>398</i>	<i>4,977</i>	<i>3,398</i>	<i>1,579</i>	<i>2,891</i>	<i>1,533</i>	<i>1,358</i>
Extended Study Area									
IMAX	0	0	0	90	59	31	0	0	0
Garage	0	0	0	675	465	210	0	0	0
<i>Subtotal</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>765</i>	<i>524</i>	<i>241</i>	<i>0</i>	<i>0</i>	<i>0</i>
<b>Total</b>	<b>1,377</b>	<b>979</b>	<b>398</b>	<b>5,742</b>	<b>3,922</b>	<b>1,820</b>	<b>2,891</b>	<b>1,533</b>	<b>1,358</b>

Walker Parking Consultants, 2008

Based on the total numbers for the zone by zone parking adequacy analysis, no zones have a negative parking adequacy.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

## PUBLIC PARKING OCCUPANCY BY LOCATION

Walker also analyzed the parking occupancy and adequacy for each of the public parking facilities individually. While the public parking supply overall is only 61% occupied, many of the facilities located in Zone 4 (core downtown area) experienced occupancy rates of 75% or higher. It is important to note a difference in the observed occupancy and the sales ratio that the RPA often references. The RPA notes a 92% sales rate of the capacity of the RPA facilities. This is different than the occupancy Walker observed and analyzed in this report.

**Table 14: Public Parking Facilities Occupancy**

Block #	Zone	Garage/Lot	Supply	Occupancy	% Occupied
5	3	Wyndham Hotel Garage	300	140	47%
6	2	2nd & Washington Garage	434	109	25%
8	2	Chiarelli Garage	500	256	51%
10	3	M&T Bank Metered*	20	9	45%
21	3	4th & Cherry Garage	635	233	37%
33	4	Poplar & Walnut Garage	1,024	906	88%
40	4	7th & Washington Lot	140	107	76%
44	4	Reed & Court Garage	526	469	89%
45	4	Penn Court Lot	429	334	78%
48	4	State Lot	39	18	46%
51	3	6th & Cherry Lot	98	14	14%
52	4	South Penn Garage	934	700	75%
53	4	BARTA Transportation Hub	100	64	64%
58	1	BARTA Park-N-Transit	350	39	11%
Extended	2	Front & Washington Garage	750	465	62%
Extended	2	IMAX Lot*	100	59	59%
Total			6,379	3,922	61%

\* These lots are not identified on the City of Reading Parking Lot Layout map located on-line

Walker Parking Consultants, 2008

## EVENT PARKING

When it comes to parking for events, particularly professional sporting events or other activities with high attendance, it is impossible, from a spatial and financial point of view to meet the same level of service for parking as one would find for an everyday use. Demand for spaces is high and the number of spaces available is limited. For the most part people understand or at least accept this. People are required to walk longer distances than normal and they generally accept paying significantly more for parking for the occasional event. In some places, shuttling may even be an option in the case of event parking, which it would not be in many other parking situations.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



OCTOBER 17, 2008

PROJECT # 14-3563.00

Walker analyzed six years of event data at the Sovereign Center, Performing Arts Center and Reading Eagle Theater, with specific interest in events that occurred on a weekday during business hours. These are events that would compete with weekday commuters and transients who park in the lots and garages closest to the Sovereign Center.

The table below shows the number of total events at the three venues and the associated parking demand for each event. Very few events over the past six years have experienced high parking demand.

**Table 15: Weekday Event Parking Demand**

Season	Weekday Venue Event Total	Parking Demand / No. of Events*				
		<400	400 - 1,200	1,201- 2,000	2,001 - 6,000	6,001 - 8,000
2001-2002**	7	5			2***	
2002-2003	3	1		2		
2003-2004****	3	1	2			
2004-2005	1			1		
2005-2006	0					
2006-2007	0					
2007-2008	2	1				1

\*Assumes a vehicle occupancy of 2.5

\*\*Three of the events that occurred during business hours did not have tickets sold.

\*\*\*Event occurred over two days

\*\*\*\* Events occurred over multiple days

Sovereign Center, 2008

Walker also analyzed attendance data for weekday evening and weekend events over the past six years. The tables below illustrate the number of events of varying sizes.

With the exception of one event over the last seven years, the majority of events at the Sovereign Center in the evenings on weekdays were estimated to experience a parking demand not greater than 6,000 vehicles. In the 2007-2008 season, more than half of the events had a parking demand of less than 1,200 vehicles.

Parkers at weekend events at the Sovereign Center do not have to compete with weekday commuters and transients. A large percentage of have estimated parking demands of less than 1,200 cars.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

**Table 16: Weeknight Event Parking Demand**

Parking Demand / No. of Events*							
Season	Weekday Venue Event Total	<400	400 - 1,200	1,201- 2,000	2,001 - 6,000	6,001 - 8,000	8,001 - 20,000
2001-2002**	31	17	7	1	5	0	1
2002-2003***	23	9	11	0	3	0	0
2003-2004	45	3	25	8	9	0	0
2004-2005	38	1	18	10	9	0	0
2005-2006	50	5	31	7	7	0	0
2006-2007	37	2	23	8	4	0	0
2007-2008	38	6	15	7	10	0	0

\* Assumes a vehicle occupancy of 2.5

\*\* Nine of the events that occurred during business hours did not have tickets sold.

\*\*\* Two events did not have tickets sold.

Sovereign Center, 2008

**Table 17: Weekend Event Parking Demand**

Parking Demand / No. of Events*							
Season	Weekday Venue Event Total	<400	400 - 1,200	1,201- 2,000	2,001 - 6,000	6,001 - 8,000	8,001 - 20,000
2001-2002**	36	14	9	3	10	0	0
2002-2003	41	11	17	8	4	0	1
2003-2004	37	8	15	7	5	2	0
2004-2005	31	5	19	4	3	0	0
2005-2006	24	5	12	4	2	0	1
2006-2007	36	6	19	2	8	0	1
2007-2008	30	7	18	2	3	0	0

\* Assumes a vehicle occupancy of 2.5

\*\* Three of the events that occurred during business hours did not have tickets sold.

Sovereign Center, 2008

## EVENT DAY OCCUPANCY

Walker also conducted an occupancy count on August 22<sup>nd</sup> between the hours of 9:00 a.m. and 3:00 p.m. in order to observe parking conditions during a Sovereign Center event. A Jehovah's Witness Conference occurred the day Walker conducted the count. This event is a free three-day event, occurring over a Friday, Saturday and Sunday.

An abbreviated Study Area was surveyed. The boundaries of the area surveyed on August 22<sup>nd</sup> are Walnut Street to the north, 11<sup>th</sup> Street to the east, Franklin Street to the south and 2<sup>nd</sup> Street to the west. The BARTA P-N-T garage and the lot and garage in the extended Study Area were also surveyed.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

The table below illustrates the observed occupancy for the Study Area. Occupancy rates as a whole do not indicate a shortage of parking. Overall, peak occupancy occurred with 5,762± vehicles parked or a 60 percent occupancy rate. Public off-street spaces were occupied at higher percentages (63%) than the overall rate.

**Table 18: Event Day Occupancy**

Zone	Supply	Occupancy	Occupancy %
1	350	333	95%
2	2,002	780	39%
3	1,688	1,102	65%
4	4,067	2,603	64%
5	983	414	42%
<i>Total</i>	<i>9,090</i>	<i>5,232</i>	<i>58%</i>
Extended Study Area			
IMAX	100	55	55%
Garage	750	475	63%
<i>Subtotal</i>	<i>850</i>	<i>530</i>	<i>62%</i>
<b>Total</b>	<b>9,590</b>	<b>5,762</b>	<b>60%</b>

Walker Parking Consultants, 2008

It is important to note that the public parking demand did not increase significantly from the non-event occupancy count. Table 19 shows the observed public parking occupancy during a weekday without an event and a weekday with an event at the Sovereign Center.

The State Lot and 6th & Cherry Lot was closed to daily parkers. In addition, daily parkers were not able to use the South Penn and 4<sup>th</sup> & Cherry parking garages on Friday during the convention weekend. The Jehovah's Witnesses were not permitted to park in the Reed and Court Garage, Poplar and Walnut Garage or Chiarelli Garage so daily parkers were welcome to park in those facilities. Permit Holders are guaranteed a space in their respective garage.

The most significant changes in parking demand between the two counts occurred in the 4<sup>th</sup> & Cherry Garage, Poplar & Walnut Garage, Reed & Court Garage, BARTA Park-N-Transit Garage Penn Court Lot, State Lot, and 6<sup>th</sup> & Cherry Lot.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

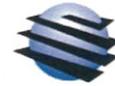
Table 19: Public Parking Occupancy Comparison

Block #	Zone	Garage/Lot	Supply	8/22/2008		7/9/2008	
				Occupancy	% Occupied	Occupancy	% Occupied
5	3	Wyndham Hotel Garage	300	141	47%	140	47%
6	2	2nd & Washington Garage	434	109	25%	109	25%
8	2	Chiarelli Garage	500	239	48%	256	51%
10	3	M&T Bank Metered*	20	9	45%	9	45%
21	3	4th & Cherry Garage	635	568	89%	233	37%
33	4	Poplar & Walnut Garage	1,024	555	54%	906	88%
40	4	7th & Washington Lot	140	72	51%	107	76%
44	4	Reed & Court Garage	526	301	57%	469	89%
45	4	Penn Court Lot	429	254	59%	334	78%
48	4	State Lot	39	38	97%	18	46%
51	3	6th & Cherry Lot	98	75	77%	14	14%
52	4	South Penn Garage	934	735	79%	700	75%
53	4	BARTA Transportation Hub	100	54	54%	64	64%
58	1	BARTA Park-N-Transit	350	333	95%	39	11%
Extended	2	Front & Washington Garage	750	475	63%	465	62%
Extended	2	IMAX Lot*	100	55	55%	59	59%
Total			6,379	4,013	63%	3,922	61%

Walker Parking Consultants, 2008

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

## LICENSE PLATE INVENTORY

Walker conducted a site survey and analysis of the on-street parking conditions with the downtown area of the City of Reading. The survey portion of the inventory required that visual inspections of all restricted spaces (includes metered and two hour limit) be made every hour, during which time the last three characters of the license plate on the occupying vehicle (if present) were recorded on a data collection form. The survey began at 8:00 a.m. and continued throughout the day until 3:00 p.m.

Analysis of the data required input of the collected license plate characters into a spreadsheet that examined the turnover characteristics on a block face at a time. (A block face is one side of a four-sided block that features restricted parking; not every block face in the downtown area is restricted by meters or a posted time limit.

The table below identifies the 25 block faces that were surveyed for this effort, which included most of Penn Street, and portions along Cherry Street, Court Street, and 4<sup>th</sup> Street.

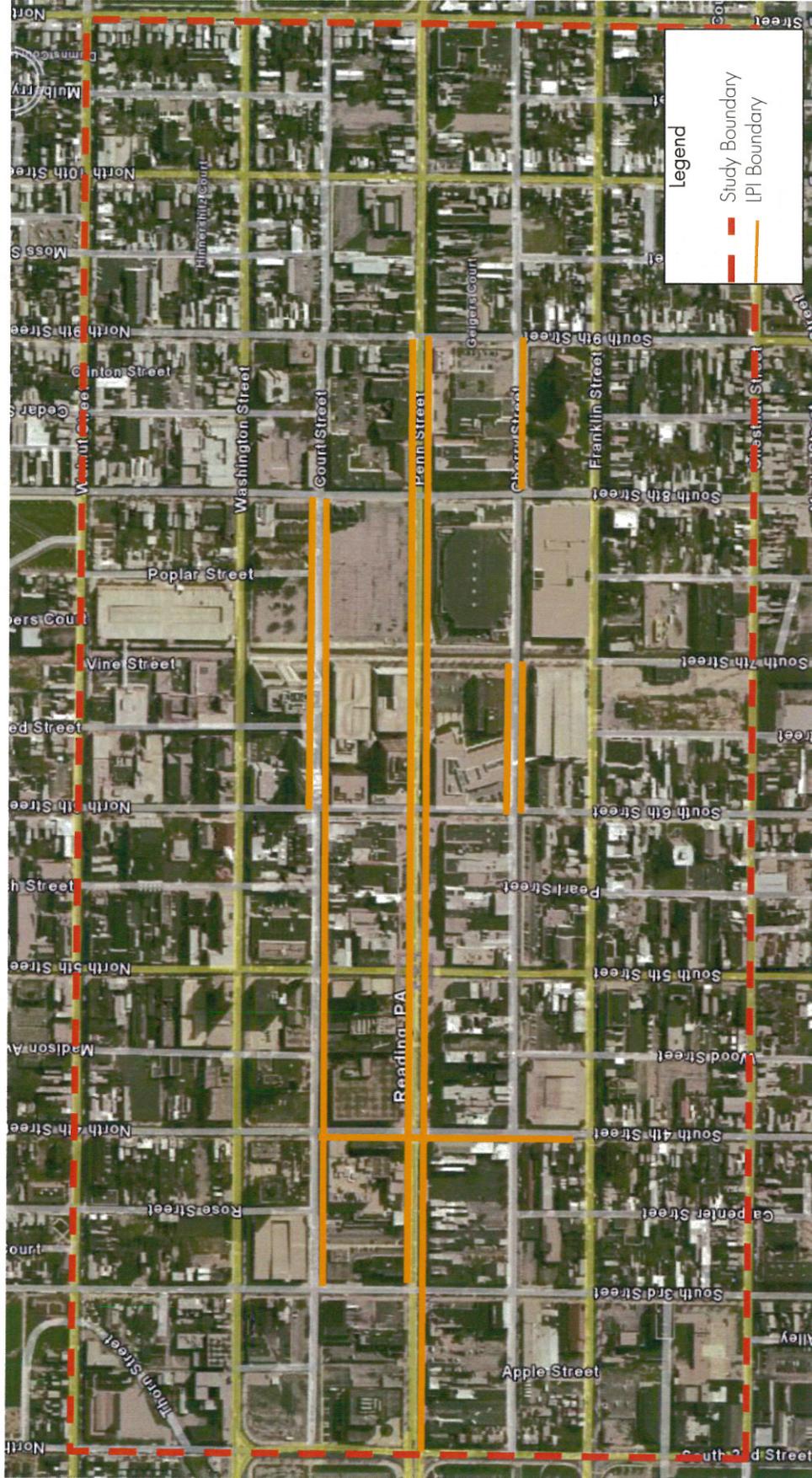
**DOWNTOWN PARKING STUDY**  
READING, PENNSYLVANIA



OCTOBER 17, 2008

PROJECT # 14-3563.00

Figure 4: LPI Map



Source: Google & Walker Parking Consultants, 2008

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

Table 20 shows that the peak parking occupancy occurred during the 10 a.m. hour, with 117 out of 212 spaces being occupied, representing a 55% occupancy rate.

**Table 20: LPI Occupancy Summary**

		Total Inventory	Hourly Occupancies							Peak Hour	
			8:00 AM	9:00 AM	10:00 AM	11:00 AM	noon	1:00 PM	2:00 PM	3:00 PM	10:00 AM
S	3rd	6	3	3	4	4	2	2	1	3	4
S	4th	13	7	7	10	8	11	9	5	7	10
S	5th	14	6	9	11	12	10	11	12	12	11
S	6th	7	5	5	5	5	4	4	3	3	5
S	7th	12	2	1	2	2	0	0	1	2	2
S	8th	6	1	0	4	2	3	4	4	4	4
N	2nd	7	1	0	3	4	1	2	3	3	3
N	3rd	16	2	2	3	3	3	0	0	0	3
N	4th	14	2	2	8	9	10	11	9	11	8
N	5th	11	6	6	8	9	9	10	11	11	8
N	8th	7	1	1	2	2	1	3	1	1	2
S	6th	7	6	6	3	4	4	7	3	4	3
N	8th	12	1	2	1	0	0	2	2	3	1
N	7th	5	0	1	1	0	0	4	1	0	1
S	6th	7	2	6	5	6	3	4	4	5	5
S	Reed	6	5	6	6	6	6	5	6	6	6
S	Vine	5	1	2	3	3	1	1	0	1	3
S	Poplar	9	1	3	4	3	4	7	1	5	4
N	7th	6	0	1	2	3	3	0	3	2	2
N	6th	7	2	7	5	4	3	6	5	6	5
N	4th	2	1	1	0	0	0	0	0	0	0
N	3rd	7	6	4	3	4	3	4	4	4	3
E	Cherry	7	1	6	6	4	5	3	5	5	6
E	Penn	9	5	7	8	7	6	6	7	7	8
E	Court	10	10	10	10	8	7	6	5	5	10

Total Occupancies	212	77	98	117	112	99	111	96	110	117
% Occupied		36%	46%	55%	53%	47%	52%	45%	52%	55%

Walker Parking Consultants, 2008

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA

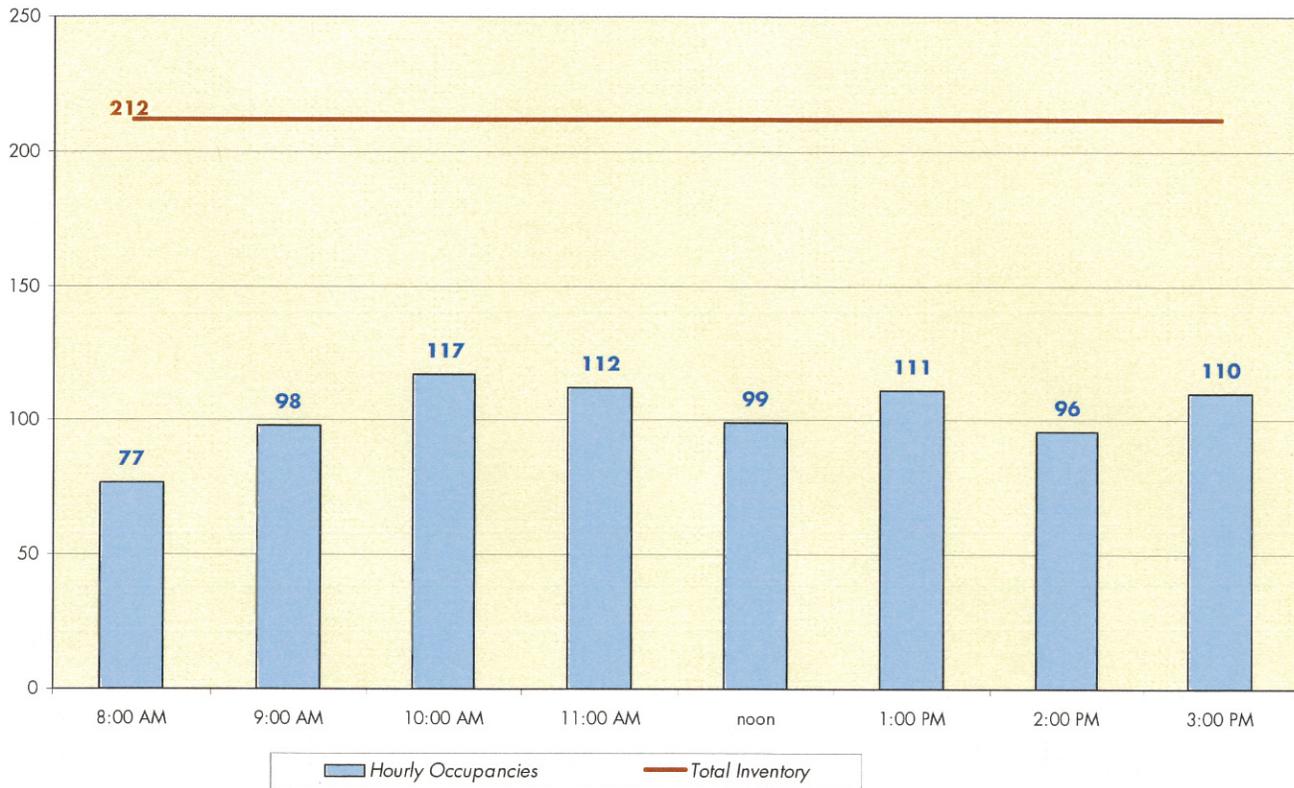


OCTOBER 17, 2008

PROJECT # 14-3563.00

Figure 5: LPI Hourly Occupancy

### Summary of Hourly Occupancies (all areas)

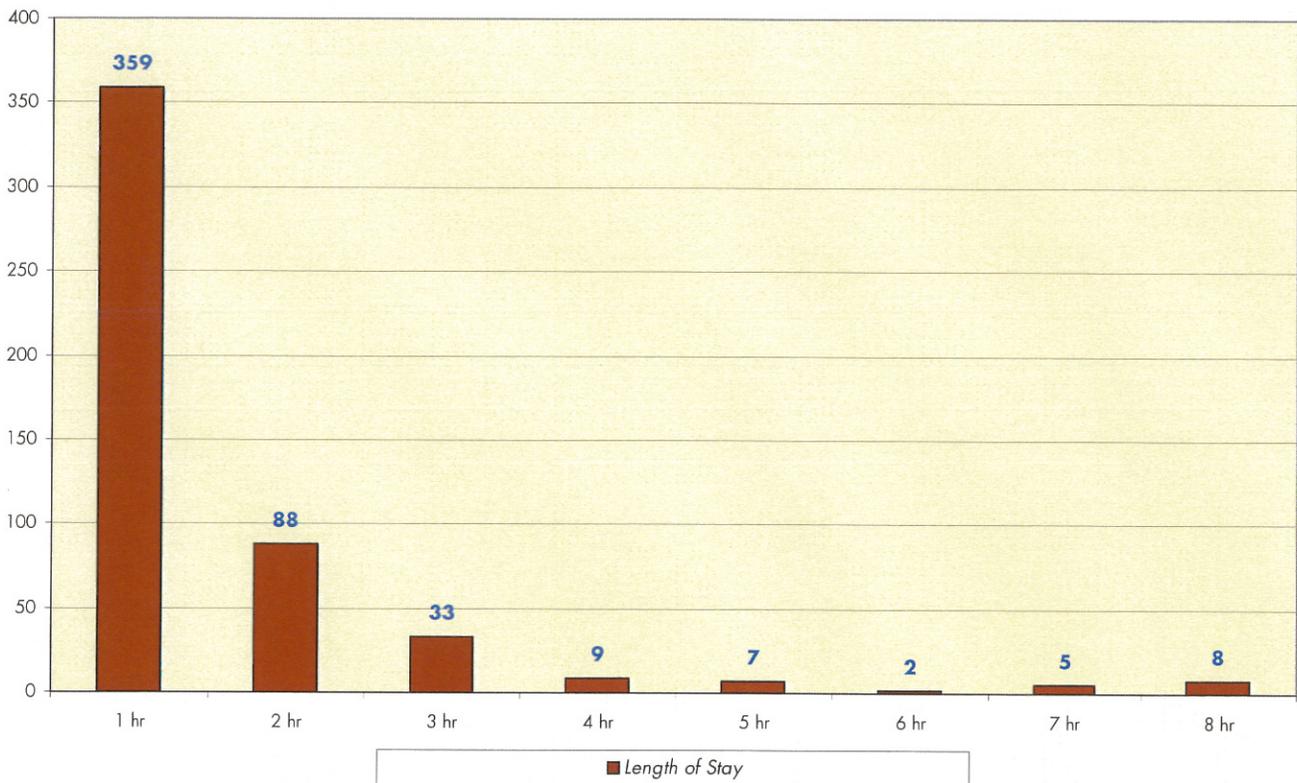


Walker Parking Consultants, 2008

Figure 6 below shows that most vehicles that were observed as parked on-street, were parked for one hour or less in the downtown area. This suggests that the majority of on-street spaces are used by short-term parkers, which is appropriate. This is not to say that specific streets within the study did not experience poor turnover. The high turnover at the majority of on-street spaces suggests that the RPA is performing a good job of enforcing the posted time limits. Parking enforcement officers were observed at work on the days of the counts.

**Figure 6: Length of Stay Summary**

**Length of Stay Summary (all areas)**



# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

There are basically two different methods for projecting future parking volumes. One method involves the use of historical growth rates. The other method involves the collection of information regarding the proposed development that is likely to occur in terms of land use and square footage changes. This information regarding future developments allows the projecting of vehicular volumes and parking demands for these new uses. However, as the planning horizon goes further and further into the future, the ability to predict these changes becomes more and more difficult and less accurate. In the case of Reading, we will utilize the second methodology.

## **FUTURE PARKING CONDITIONS**

### **PROJECTED PARKING DEMAND**

Parking demand refers to the amount of parking that is estimated to be used at a particular time, place, and price. It is a critical factor in evaluating parking problems and solutions. Parking demand is affected by vehicle ownership, trip rates, mode split, length of stay, geographic location, type of trip (work, shopping, special event), the quality of public transportation and factors such as fuel and parking costs. The methodology employed by Walker to project future demand combines the baseline demand which is equal to the observed peak weekday occupancy level, and any incremental change or growth in demand resulting from new land uses entering the Study Area. The baseline and incremental increase in demand are added together and then compared to the existing effective parking supply to determine the overall parking adequacy.

New land uses to be located in the defined Study Area can impact the general need for parking. This is especially true for uses that sell products or services which are sensitive to business cycles impacted by macro variables and whose performance is strongly tied to the overall economy. It is important to understand that parking is a derived demand and is susceptible to fluctuations based on changes in underlying economic conditions that drive the demand for primary activities in the Study Area. Historically, downtown Reading has experienced comparable economic cycles of growth and decline as experienced by comparable downtown communities. The City of Reading has exhibited a positive growth trend during the past decade with a sustained level of community development and revitalization.

There are several proposed urban renewal and new downtown development projects that may directly impact public parking in downtown Reading. City representatives provided Walker with a list of developments that may come to fruition within the next ten years.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

The list of proposed developments may not represent all real estate projects or business expansions being considered in the Study Area, but does represent a collection of the most significant projects being considered at this time.

The analysis of future parking conditions is predicated on the removal of existing parking supply, as well as the addition of new or renovated land uses to the Study Area. For the purpose of this study, the following projects are reflected in the calculation of future parking demand.

**Table 21: New Development Assumptions**

Zone	Block	Project	Land Use	SF/Unit		Parking Associated
1	24	Barley Square	Residential Adult Day Care Retail	60 20,000 10,570	Units SF SF	96 Spaces
2	8	Washington Towers Office/Retail - 50 N. 4th Street	Office	25,000	SF	
2	11	Gateway Building - 201 Penn Street	Office	27,300	SF	
2	Extended	R/C Theaters	Movie Theater	1,780	SF	
2	Extended	Goggle Works Apartment Complex	Residential	59	Units	89 Spaces
2/3		Restaurant Development 3rd to 6th Street & Penn, Cherry and Franklin Streets	Restaurant <sup>6</sup>	38,500	SF	
3	13	Callowhill Building - 431-443 Penn Street	Office	62,000	SF	
3	29	Berkshire - 501 Washington Street	Office <sup>4</sup>	15,000	SF	
4	14	Exide HQ Building - 645 Penn Street	Office	53,000	SF	
4	38	Greater Reading Corporate Center - 35 N. 6th Street	Office <sup>5</sup>	50,000	SF	
4	44	Former Sovereign Bank Branch - 15 N. 6th Street	Office	12,952	SF	
4	40	Washington Square Development - 7th and Washington	Office Residential Health Club Restaurant	81,282 30 10,968 10,968	SF Units SF SF	675 Spaces
4	45	DoubleTree Hotel	Hotel Convention /Meeting /Banquet Space	200 0	Rooms SF	800 Spaces
5	73	1000 Penn Street Development A	Residential	16	Units	48 Spaces
5	75	1000 Penn Street Development B	Residential	14	Units	28 Spaces

<sup>1</sup> Size based on square footage or units

<sup>2</sup> Based on GLA, GFA, or units as appropriate.

<sup>3</sup> Adjusts the peak parking demand to the Weekday peak at 9:00 a.m.

<sup>4</sup> Parking is reportedly available at 10 per 1,000 sf

<sup>5</sup> On-site parking is reportedly 0.30 per 1,000 sf

<sup>6</sup> Development of restaurants space in downtown area is not definitive. Six to nine new 5,000 to 6,000 s.f. restaurants are planned.



OCTOBER 17, 2008

PROJECT # 14-3563.00

There are two primary variables applied to the calculation of peak accumulation for new developments: 1) the total gross floor area (GFA), number of hotel rooms, seating capacity, etc. for each type of proposed land use (i.e. office, retail, restaurant, etc.), and 2) the appropriate parking demand ratio. The following section provides a discussion on the use of shared parking methodology when calculating the appropriate demand ratio to use for each type of land use in this analysis.

## SHARED PARKING DEMAND

Shared parking is defined as parking spaces that can be used to serve two or more individual land uses without conflict or encroachment. One of the fundamental principles of downtown planning from the earliest days of the automobile has always been to share parking resources rather than to have each use or building have its own parking. The resurgence of many central cities resulting from the addition of vibrant residential, retail, restaurant and entertainment developments continues to rely heavily on shared parking for economic viability. In addition, mixed-use projects in many different settings have benefited from shared parking. There are numerous benefits of shared parking to a community at large, not the least of which is the environmental benefit of significantly reducing the square feet of parking provided to serve commercial development.

The interplay of land uses in a mixed-use environment produces a reduction in overall parking demand. For example, a substantial percentage of patrons at one business (restaurant) may be employees of another downtown business (office). This is referred to as the "effects of the captive market". These patrons are already parking and contribute only once to the number of peak hour parkers. In other words, the parking demand ratio for individual land uses should be factored downward in proportion to the captive market support received from neighboring land uses.

The base parking demand ratio for each land use is adjusted to represent the project ratio. Project ratios are calculated by multiplying the base ratio by the non-captive ratio (one minus the percent captive), by a monthly adjustment factor, hourly adjustment, and the drive ratio.

Summarized in the following tables is the projected peak parking demand during typical weekday conditions for all the new development projects identified in Table 22.

---

### Calculation of Project Ratio

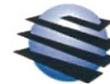
---

$$\begin{array}{l} \text{Base Ratio} \\ \times \\ \text{Non-Captive Ratio} \\ \times \\ \text{Monthly Adjustment Factor} \\ \times \\ \text{Peak Hourly Adjustment Factor} \\ \times \\ \text{Drive Ratio} \\ = \\ \text{Project Ratio} \end{array}$$

---

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

**Table 22: Summary of Projected New Parking Demand**

Zone	Block	Development	Size <sup>1</sup>	0-5 Year Projected Demand	5-10 Year Projected Demand
1	24	Barley Square			
		Residential	60	36	53
		Adult Day Care	20,000	4	7
		Retail	10,570	14	22
<b>Subtotal</b>				<b>54</b>	<b>82</b>
2	8	Washington Towers Office/Retail - 50 N. 4th Street			
		Office	25,000	45	90
11		Gateway Building - 201 Penn Street			
		Office	27,300	49	99
		Extendec R/C Theaters			
		Movie Theater	1,780	52	78
Extendec		Goggle Works Apartment Complex			
		Residential	59	35	52
2/3		Restaurant Development 3rd to 6th Street & Penn, Cherry and Franklin Streets			
		Restaurant <sup>6</sup>	38,500	145	218
3	13	Callowhill Building - 431-443 Penn Street			
		Office	62,000	107	214
29		Berkshire - 501 Washington Street			
		Office <sup>4</sup>	15,000	27	54
4	14	Exide HQ Building - 645 Penn Street			
		Office	53,000	93	185
38		Greater Reading Corporate Center - 35 N. 6th Street			
		Office <sup>5</sup>	50,000	87	175
44		Former Sovereign Bank Branch - 15 N. 6th Street			
		Office	12,952	23	47
40		Washington Square Development - 7th and Washington			
		Office	81,282	164	246
		Residential	30	20	30
		Health Club	10,968	6	10
		Restaurant	10,968	71	106
<b>Subtotal</b>				<b>261</b>	<b>392</b>
45		DoubleTree Hotel			
		Hotel	200	105	158
		Convention /Meeting /Banquet Space		0	0
<b>Subtotal</b>				<b>105</b>	<b>158</b>
5	75	1000 Penn Street Development A			
		Residential	16	5	11
73		1000 Penn Street Development B			
		Residential	14	4	9
<b>Total Demand</b>				<b>1,092</b>	<b>1,864</b>

<sup>1</sup> Size based on square footage or units

<sup>2</sup> Based on GLA, GFA, or units as appropriate.

<sup>3</sup> Adjusts the peak parking demand to the Weekday peak at 9:00 a.m.

<sup>4</sup> Parking is reportedly available at 10 per 1,000 sf

<sup>5</sup> On-site parking is reportedly 0.30 per 1,000 sf

<sup>6</sup> Development of restaurants space in downtown area is not definitive. Six to nine new 5,000 to 6,000 s.f. restaurants are planned

Walker Parking Consultants, 2008

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

## FUTURE PARKING ADEQUACY

A fundamental aspect of any central business district or downtown area is the interplay of activities from block to block. Commonly, patrons of a downtown area park on one block and go to work and/or patronize a business on another block. Additionally, not all of the parking patrons bound for a particular block will choose to park if there is a sufficient amount of available space. Market factors, especially price, walking distance and convenient access will result in significant interplay between blocks. For these reasons, it is not critical to focus on the balance for any individual block. Rather, the focus is on the defined zones within each of the three districts.

Parking adequacy is the difference between effective parking supply and projected demand. As with the analysis of existing parking conditions, Walker evaluated future parking adequacy within five (5) zones. Each zone encompasses a unique representation of land uses with different parking demand characteristics. Table 23 identifies the projected future weekday parking adequacy for each zone.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



OCTOBER 17, 2008

PROJECT # 14-3563.00

**Table 23: Future Weekday Parking Adequacy by Zone – 5 Year**

<b>Weekday (5 year projection)</b>				
Zone	Total	Peak Demand	Projected	Future Adequacy
	Effective Supply		Demand Increase	
1	1,144	408	54	682
2	1,832	886	241	705
3	1,531	757	225	549
4	4,500	3,184	476	839
5	1,217	675	9	533
Extended	760	524	87	149
<b>Total</b>	<b>10,983</b>	<b>6,434</b>	<b>1,092</b>	<b>3,457</b>

<b>Weekday (10 year projection)</b>				
Zone	Total	Peak Demand	Projected	Future Adequacy
	Effective Supply		Demand Increase	
1	1,144	408	82	654
2	1,832	886	456	490
3	1,531	757	404	370
4	4,500	3,184	772	543
5	1,217	675	20	522
Extended	760	524	130	106
<b>Total</b>	<b>10,983</b>	<b>6,434</b>	<b>1,864</b>	<b>2,685</b>

Effective Supply in Zone 1 increased by 91 spaces

Effective Supply in Zone 4 increased by 816 spaces

Effective Supply in Zone 5 increased by 72 spaces

Effective Supply in the extended Zone decreased by 5 spaces

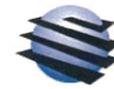
Walker Parking Consultants, 2008

Within the 84-block Study Area, a demand increase of 1,092 spaces is projected to occur in the next five years, while the effective supply is projected to increase by 973 spaces. Over the next ten years, the future demand is projected to increase by 1,864 spaces. It is important to note that while neither the Study Area as a whole, nor an individual zone, is expected to experience a parking deficit; there may be blocks within the Study Area that experience parking deficits.

Figures 7 and 8 illustrate the projected weekday parking occupancy for all of the study zones at 5- and 10-year perspectives, respectively.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

The Study Area was observed as having an overall adequacy of parking. This is projected to continue over the next five to ten years with prospective development projects, including future parking facilities such as the Convention Hotel Garage. Specific blocks within the Study Area experienced a parking shortage and/or parking occupancy at or near capacity.

## **PARKING SUPPLY AND DEMAND REDUCTION ALTERNATIVES ANALYSIS**

### **ALTERNATIVE SITES FOR FUTURE PARKING FACILITIES**

#### **SITE ANALYSIS**

Based on a discussion of our preliminary parking demand analysis and a review of development options for the City of Reading, we have prepared recommendations and options regarding any significant expansion of public parking in the city. This discussion occurred on July 10, 2008, and our general observations and recommendations follow.

#### **GENERAL OBSERVATIONS**

The city has an opportunity to plan for future economic growth and create a downtown destination that will support a variety of land uses and create a busy urban setting. At present, there are a wide variety of retail, office and entertainment facilities. In some cases (such as the along Penn Street) the businesses are vibrant, the buildings are in keeping with the look and feel of the downtown that the city wants to maintain, there is significant pedestrian activity, and the land is utilized in keeping with the "highest and best" use of the property according to prevailing planning principals. In some cases, the facilities are older, less vibrant, less in keeping with the desired appearance and, due to the redundant quantities of private parking compared to the overall square footage of the buildings, are examples of poor utilization of urban streetscape.



OCTOBER 17, 2008

PROJECT # 14-3563.00

## RESTRIPING

Typically the quickest and least expensive way to increase parking supply is by maximizing the existing space through restriping. Costs of a parking structure can run anywhere from \$15,000 to \$20,000 per space and upwards. Surface parking lot construction costs typically range from \$2,500 to \$3,500 per space. By comparison, simple line restriping costs for an asphalt parking lot range from \$21 to \$35 per space depending on several variables including the number of coats of sealer used. Therefore, restriping a parking facility to increase capacity represents a substantial savings over building new parking facilities. How and why an existing lot is restriped is dependent on the situation. In some cases, stall widths can be reduced to 8'-9" to increase the parking supply. In other cases, drive aisles may be reduced; moreover, converting from 90-degree to angled parking or vice versa can result in increased capacity.

## WALKING DISTANCE

**Pedestrian Safety:** This criterion involves two factors: the ability of vehicles to move to and from the area without pedestrian/vehicle conflict and, the ease of use by pedestrians with consideration of the walking path and distances to/from the facility.

Walking distance varies based on the patron user group as well as the environment of the surrounding area in which the patron must walk. To aid in estimating the appropriate walking distance, a Level of Service (LOS) rating system is used for evaluating appropriate walking distances based on specific criteria. Several factors impact the walking distance that a typical person will consider reasonable. These include climate, perceived security, lighting, and whether it is through a surface lot or inside a parking structure. LOS "A" is considered the best or ideal, LOS "B" is good, LOS "C" is average and LOS "D" is below average but minimally acceptable.

A break-down of the LOS conditions is provided in the following table.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

**Table 24:** Level of Service Conditions

Level of Service Conditions	A	B	C	D
Climate Controlled	1,000 ft.	2,400 ft.	3,800 ft.	5,200 ft.
Outdoor/Covered	500	1,000	1,500	2,000
<b>Outdoor/Uncovered</b>	<b>400</b>	<b>800</b>	<b>1,200</b>	<b>1,600</b>
Through Surface Lot	350	700	1,050	1,400
Inside Parking Facility	300	600	900	1,200

Source: "How Far Should Parkers Have to Walker?", by Mary S. Smith and Thomas A. Butcher, Parking September 1994

We recommend striving to provide adequate parking to specific user groups using the following LOS guidelines.

**Visitors:** Because visitors are most likely unfamiliar with the area and/or are short-term parkers, we recommend providing walking distance LOS A to all visitors.

**Employees:** We recommend striving to provide LOS C and/or D to employees, which park for longer periods and may not require the use of their vehicle throughout the day.

The following figures illustrate walking distances from various points around campus.

## ALTERNATIVE SOLUTIONS FOR EXPANDING PARKING SUPPLY

As development becomes more intense and land prices rise, various alternatives come to mind as possible options to expand the parking supply. However, in practice, these options often end up being expensive, impractical to implement, or challenging to operate on a daily basis.

**Automated garages:** Automated garages, with their enormous space-saving potential due to their efficient use of space and high tech gadgetry, at first appear quite attractive as a method for solving parking problems. One would think that these benefits would make them far more common than they actually are. However, parking spaces in automated garages are more expensive than typical structured parking spaces by orders of magnitude. For this reason, the only places that they are generally in use are in cities with the world's highest land prices, such as New York, London, and Tokyo. This is not to say that automatic garages can never be used in other places; such technology may make "parking" and developing an odd shaped lot, which could not be developed otherwise, a possibility. However,

## DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

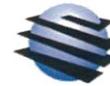
a cost effective use of such technology where real estate prices are not extremely high would likely be the exception and not the rule.

Another difficulty with automated garages is peak parking demand. For a location at which parkers do not all arrive or depart at the same time, retrieving one's car mechanically can be a relatively simple process. However, in situations where many people are arriving or departing at the same time, such as employees during the morning and evening rush hours, retrieving one's car can become quite slow and cumbersome.

One of the newest automatic garages to be built in the United States was in Hoboken, New Jersey, where it was constructed to park the cars of commuter ferry passengers. The garage opened to much fanfare, but has suffered from frequent breakdowns, which has been blamed on everyone from the company who designed the system, to the operator, to the high peaks in demand to which such a garage would be subject.

**Remote parking with shuttle or other connections:** The intense use and high price of land in the center city can make remote parking solutions an attractive option. However, they present a number of difficulties. The first difficulty is the shuttling operation. Almost without exception, people do not like to park their cars, wait for a shuttle, and then board the bus for a second leg of their trip. Waiting times are a particular obstacle. In addition, providing shuttle service can be costly, up to roughly \$50 per hour per vehicle, and the operation can be made more costly and complicated to run for office employees due to high spikes in demand in the morning and evening with virtually no demand throughout the middle of the day. While reducing passenger waiting times can make parking in a shuttle lot more attractive to drivers, it can also increase costs dramatically.

One alternative to the shuttle lot can be to use the light rail system as a shuttle. According to planners in Salt Lake City, a significant number of employees drive to light rail stations just outside the downtown area and use the light rail system to commute into the downtown area. Overall, however, most people want to minimize the number of transfers they make during their commute. In many instances, people end up walking long distances from shuttle lots to avoid the wait time.



**MINIMUM PARKING STRUCTURE DIMENSIONS**

The most effective way to concentrate a parking supply is through a parking structure. There are several variables and options to consider when selecting the type of structure. Options include the desired traffic flow (one way or two way), additional use within the structure (such as retail on the bottom level), the Level of Service (LOS), and height restrictions.

Generally, the larger the potential site, the greater the options for the design of the structure. The following table provides the minimum dimensions for two types of structures, as well as a variation on the level of service (LOS). A single threaded helix is basically one ramp, with either all sloped parking or one-bay flat and one-bay sloped. A double-threaded helix provides a continuous travel path through the structure. These are examples only and do not represent a specific site or design. The dimensions do not include required set-backs or green space, thus each site would likely need to be five to ten feet wider.

**Table 25: Minimum Parking Structure Dimensions**

Garage Type	Traffic	Space	LOS D Dimensions	LOS A Dimensions
Single Threaded Helix	Two Way	90°	120' x 135'	120' x 187'
Double Helix	One Way	75°	112' x 188'	112' x 282'

Walker Parking Consultants

These minimum parking structure dimensions may be useful when considering sites for adding a parking structure. We recommend building a structure with at least 300 spaces in order to minimize the overall cost per added space. Smaller garages result in fewer spaces per square foot and higher construction costs per space.

**PARKING STRUCTURE ALTERNATIVES**

Many of the large retail and office components in downtown Reading are landlocked by major streets and neighborhoods. Therefore, the idea of a parking structure to increase the parking supply must be addressed. There were several public garages and lots in the downtown area. Walker analyzed existing garages for their expansion opportunities in addition to the alternatives outlined below. Walker has provided a table with the name of the garage, year it was built and supply.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

Table 26: Downtown Garages

Garage/Lot	Year Built	Supply
Wyndham Hotel Garage	1965	300
2nd & Washington Garage	2007	434
Chiarelli Garage	1983	500
4th & Cherry Garage*	1970/2006	635
Poplar & Walnut Garage	1990	1,024
Reed & Court Garage	1977	526
South Penn Garage**	1971/1990	934
BARTA Transportation Hub	2005	100
BARTA Park-N-Transit		350
Front & Washington Garage	1990	750
		6,279

- The 4<sup>th</sup> and Cherry Garage was built in 1970 and expanded in 2006.
- The South Penn Garage was built in 1971 and expanded in 1990.

Walker Parking Consultants, 2008

In terms of vertical expansion, one of the current garages offered viable options. The majority of garages in the downtown area were built before the year 2000, with exception of the 2<sup>nd</sup> & Washington Garage which was built in 2007 and the BARTA Transportation Hub in 2005. Due to the age of the majority of these garages, the structures are likely unable to support the recently increased code mandated seismic loads associated with vertical expansion and extensive structural restoration would be needed to prepare these garages for a vertical expansion. The BARTA Park-N-Transit Garage can be expanded vertically by a single level.

It is also important to note that there is limited access to all four sides of many of the parking facilities. The limited access is likely to require a more specialized crane. Please note that all of the existing garage(s) would likely be closed during the vertical structural frame erection (for 6 to 9 months) and the existing parking spaces lost during that time. Alternate plans would need to be made to move this demand. Although the 2<sup>nd</sup> & Washington Street Garage was only built in 2007, drawings indicated that this garage was not designed for vertical expansion.

Walker also considered horizontal expansion of many of the existing facilities. The Wyndham Hotel Garage was considered for an expansion in the western direction, across Madison Avenue. This option was reconsidered due to the proximity of the garage to the adjacent buildings once the expansion was complete. Fire safety ratings typically require a total of 20 to 30 feet between two structures, which the Wyndham Garage cannot meet.

## DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

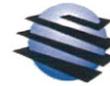
PROJECT # 14-3563.00

The age of the 4<sup>th</sup> & Cherry Garage, and previous expansion of this garage, made an expansion at this site undesirable. Additionally, the garage's footprint already encompasses the entire 400 block of Cherry Street, limiting expansion in every direction. The South Penn Garage, located between the 600 blocks of Franklin and Cherry Streets, was already expanded once and cannot feasibly be expanded a second time.

The Poplar & Walnut Garage was a 1,000+ space garage located between 7<sup>th</sup> & Poplar Streets and Washington and Walnut Streets. The garage was bounded by the railroad tracks on the east and main thoroughfares on the remaining three sides. Due to the garage's proximity to rail lines, this site was not chosen for horizontal expansion.

The BARTA Transportation Hub on the 700 block of Cherry Streets was built in 2005. Drawings of this garage were not obtained, and further information was needed to determine vertical expansion opportunities. Horizontal expansion of this garage is limited to the north, south, and west by the Sovereign Center, business route 422 and the railroad.

Walker has developed additional possibilities for expanding parking through such structured alternatives. These garages may not have been "designed" to be horizontally expanded at the time of its construction, but this does not mean that it cannot be expanded. Generally there are two possible scenarios when an existing garage is identified for horizontal expansion. When an existing garage has been designed for horizontal expansion, it means the footings already in place are sufficient to support the increased loads. Additionally, a garage designed for expansion would have parts of walls that are removable and sufficient electrical power to support the expansion. An existing garage, which was not designed for horizontal expansion, can be expanded by constructing a second structure adjacent (within 5 to 10 feet) to the existing parking facility. This second structure is designed with separating footings from the initial structure, and supports its own loads. The garages are connected by cantilevering a short section of the new structure over the 5 to 10 foot gap to the existing facility. Therefore, although a garage may not have been designed to be horizontally expandable, this does not mean that an expansion is not structurally possible; simply that there is a greater cost associated with this second type of expansion. These alternatives assume that hidden conditions (such as buried waste, extensive utilities, unknown easements) do not exist. Each of these has been expanded in the following text.



OCTOBER 17, 2008

PROJECT # 14-3563.00

## ALTERNATIVE 2A – 2<sup>ND</sup> & WASHINGTON STREET EXPANSION

This option assumes the horizontal expansion of the 2<sup>nd</sup> & Washington Street Garage in the eastern direction. The current Garage is a three-bay, 5-level, 434-space garage located between 2<sup>nd</sup> & 3<sup>rd</sup> Streets and Washington & Court Streets. We have shown a single-bay expansion approximately 60'-0" x 168'-0" along Court Street. The expansion would require that a portion of Thorn Street be permanently closed. Additionally, this expansion would require the acquisition of land along Court Street between Thorn and 3<sup>rd</sup> Streets. The expansion would provide approximately 34 parking spaces per floor, and a 5 level garage would provide approximately 170 parking spaces. The width and length of the structure would allow for a conventional and relatively efficient parking layout, with a probable construction cost in the range of \$27,000 per space (not including land acquisition). The price range would be affected by the level of architectural design, user features, site conditions or other design decisions. We recommend that planning for an additional 20% cost. As a rough estimate, this would include 10% for design, testing or other professional services, and 10% construction contingency which, if all goes well, would be returned to the city at the end of the project.

Although this garage was not initially designed for horizontal expansion, it does not mean that an expansion is not structurally possible; simply that there is a greater cost associated with this type of expansion.

### ADVANTAGES

- Efficient parking layout;
- Cost effective compared to alternatives 2C and 2D;
- Good pedestrian access to Goggle Works and the new IMAX Theater;
- Does not displace any other existing public parking, so all parking built is a "net increase" in public capacity.

### DISADVANTAGES

- Requires the RPA to obtain private land parcels to proceed;
- Not centrally located in core business district and cannot serve both the office and retail components of downtown effectively;
- The cost to expand a garage not "designed" for horizontal expansion is greater;
- Limited vehicular access, with an entrance along Thorn Street.



OCTOBER 17, 2008

PROJECT # 14-3563.00

## ALTERNATIVE 2B – CHIARELLI GARAGE EXPANSION

The Chiarelli Garage is located between Court & Washington Streets and 3<sup>rd</sup> & 4<sup>th</sup> Streets, with a parking supply of approximately 500 spaces. We have shown a horizontal expansion in the eastern direction. The expansion would require a fly-over of 3<sup>rd</sup> Street and the acquisition of land on the adjacent block. The 180'-0" by 168'-0" expansion would allow for the addition of approximately 400 spaces. Levels three through five would contain approximately 93 spaces, while levels one and two approximately 60 spaces. The construction cost to horizontally expand the Chiarelli Garage would cost an estimated \$27,200 per space (not including land acquisition). As in Alternative 2A, we recommend that planning for an additional 20% cost. As a rough estimate, this would include 10% for design, testing or other professional services, and 10% construction contingency which, if all goes well, would be returned to the city at the end of the project.

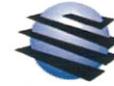
Like the 2<sup>nd</sup> & Washington Garage, the Chiarelli Garage was not initially designed for horizontal expansion. Although the garage may not be designed to be horizontally expandable, this does not mean that an expansion is not structurally possible; simply that there is a greater cost associated with this type of expansion.

### ADVANTAGES

- Efficient parking layout
- Cost effective compared to underground parking
- Good pedestrian access to Goggle Works, the IMAX theater and several office and retail components;
- Good vehicular access by 3<sup>rd</sup> Street;
- Does not displace any other existing public parking, so all parking built is a "net increase" in public capacity.

### DISADVANTAGES

- Requires the RPA to obtain private land parcels to proceed;
- Requires a flyover of 3<sup>rd</sup> Street;
- The cost the expand a garage not "designed" for horizontal expansion is greater;
- Pedestrian access to core development areas in Zone 4 of the downtown area is poor.



OCTOBER 17, 2008

PROJECT # 14-3563.00

## ALTERNATIVE 2C – REED & COURT GARAGE EXPANSION

This alternative analyzes the potential for a horizontal expansion of the Reed & Court Garage located at the corner of 7<sup>th</sup> and Court Streets. The current garage is located in the core downtown area, across the street from the court house and within walking distance to the Sovereign Center. A horizontal expansion in the eastern direction would require land acquisition and demolition of an existing building. A 72'-0" by 120'-0" expansion of the six level, 500 space garage would increase the supply by approximately 160 spaces or 26 spaces per level. We would expect construction costs for this option to be on the order of \$30,960 per parking space (not include land acquisition), plus we recommend a 20% allowance for soft costs and contingency.

### ADVANTAGES

- Good pedestrian access to the Government District, Berks County Courthouse, Sovereign Center and several office and retail components in the core downtown area;
- Good vehicular access by Court Street;
- Does not displace any other existing public parking, so all parking built is a "net increase" in capacity.

### DISADVANTAGES

- Requires the city to obtain private land parcel to proceed;
- Second highest construction cost;
- Requires demolition of existing building;

## ALTERNATIVE 2D – BARTA PARK-N-TRANSIT EXPANSION

The BARTA Park-N-Transit Garage is located between Franklin & Chestnut Streets and Plum & 7<sup>th</sup> Streets, with a parking supply of approximately 350 spaces. We have shown a one-level vertical expansion of the approximately 125'-0" by 275'-0" garage, based on the information provided to us by BARTA. The vertical expansion would allow for the addition of approximately 115 spaces. The construction cost to horizontally expand the BARTA Park-N-Transit garage is unknown but our experience suggests that it may cost in the vicinity of \$34,100 per space. As in above alternatives, we recommend planning for an additional 20% cost. As a rough estimate, this would include 10% for design, testing or other professional services, and 10% construction contingency which, if all goes well, would be returned to the city at the end of the project.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

This option is presented as it is one of the only approaches that can be completed on existing property owned by BARTA. No land acquisition will be required.

## ADVANTAGES

- No land acquisition necessary;
- Good pedestrian access to Sovereign Center, and several office and retail components;
- Good vehicular access by Franklin Street;

## DISADVANTAGES

- Garage must be closed down for 6 to 9 months;
- Pedestrian access to core development areas in Zone 4 of the downtown area is less desirable than Alternative 2C;
- Pedestrian access to entertainment venues such as Goggle Works and the IMAX theater is poor;
- Existing garage is already under utilized.

## ALTERNATIVE 1A – STATE LOT

The State Lot is located between Penn & Cherry Streets and 6<sup>th</sup> & 7<sup>th</sup> Streets, with a parking supply of approximately 50 spaces. A 120'-0" by 120'-0" parking structure<sup>4</sup> could be erected on this site. The five level garage (ground plus four tiers) would provide the city with approximately 220 spaces or 44 spaces per level. The new facility would be constructed over the existing State Lot, displacing approximately 50 spaces and resulting in a net increase in public parking of approximately 170 spaces.

Alternatively, a 120'-0" by 132'-0", five-level garage (ground plus four tiers) would provide downtown Reading with approximately 240 gross parking spaces. The structure would displace the existing State Lot, resulting in a net increase of 190 parking spaces.

---

<sup>4</sup> A garage with a layout of 120'-0" by 120'-0" would be inefficient and does not meet the recommended LOS referenced in table 25.

## **DOWNTOWN PARKING STUDY**

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

The cost to build a garage on the State Lot would cost an estimated \$22,900 or \$23,100 per space respectively, depending on the scenario chosen. As in the above alternatives, we recommend that you plan for an additional 20% cost. As a rough estimate, this would include 10% for design, testing or other professional services, and 10% construction contingency which, if all goes well, would be returned to the city at the end of the project.

### **ADVANTAGES**

- Cost effective compared to alternatives 2A through 2D
- Good pedestrian access to the Sovereign Center, Government District, and several office and retail components;
- Good vehicular access by Penn Street;
- Does not require the RPA to obtain private land parcels to proceed;

### **DISADVANTAGES**

- Displace existing public parking, so all parking built is a "net increase" in capacity;
- Inefficient garage layout;
- No horizontal expansion opportunities

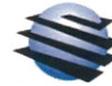
### **ALTERNATIVE 1B – GOGGLE WORKS LOT**

The Goggle Works Lot is located between Thorn & Walnut Streets and 2<sup>nd</sup> & Thorn Streets, with a parking supply of approximately 200 spaces. A 180'-0" by 180'-0" parking structure could be erected on this site. The three-level garage (ground plus two tiers) would provide the city with approximately 297 spaces or 99 spaces per level. The new facility would be constructed over the existing Goggle Works Lot, displacing approximately 127 private spaces and resulting in a net increase in public parking of approximately 270 spaces.

The construction cost to build a garage on the State Lot would cost an estimated \$19,600 per space. As in the above alternatives, we recommend planning for an additional 20% cost. As a rough estimate, this would include 10% for design, testing or other professional services, and 10% construction contingency which, if all goes well, would be returned to the city at the end of the project.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

## *ADVANTAGES*

- Layout of garage is efficient;
- Good pedestrian access to Goggle Works and the IMAX Theater, as well as several office and retail components;
- Good vehicular access by 2<sup>nd</sup> Street;
- Horizontal and vertical expansions can be considered.

## *DISADVANTAGES*

- Displace existing private parking, so all parking built is not a "net increase" in capacity;
- Pedestrian access to core downtown area of Reading (Zone 4) is poor;
- Requires the RPA to obtain private land parcels to proceed.



OCTOBER 17, 2008

PROJECT # 14-3563.00

## MATRIX OF THE ANALYSIS

To help prioritize the criteria to consider when judging the various sites, we use a matrix analysis. As agreed upon with the RPA, we list all the criteria that we want to consider during the evaluation process and assign each a weight (i.e. importance). The alternative's score for the criteria is the weight multiplied by the rating. The summation of scores gives us a final number such that theoretically the highest number is the most preferred scheme and the lowest number is the least preferred. Small variations in the totals can be ignored. The RPA should review the weights and ratings because it could easily affect the final recommendation.

**Proximity to Demand** – The location of each potential development site in relation to commercial buildings that are occupied and generate demand for parking during traditional business hours. The representation of land use near each site is considered and the level of reliance a site may have on one or multiple sources of demand.

**Construction Cost** – The construction cost associated with each potential development site does not include things such as property acquisition, tenant relocation, and demolition.

**Land Availability** – The land availability associated with each potential development site considers the existing use of the land, whether or not property acquisition is required, and the need for tenant relocation, zoning compliance, and whether or not identified redevelopment plans exist.

**Future Development** – The assessment of future development includes whether parking is the highest and best use of the land and if future development is planned on or adjacent to the site that may benefit or hinder the parking operation.

**Traffic Impact** – The traffic impact on the existing traffic patterns and the impact that peak period loading and unloading may have on the surrounding street system.

**Mixed-Use Potential** – The potential of each site to integrate at grade level retail, restaurant and/or office space. Whether or not potential for a mixed-use parking facility exists is dependent on the type of land uses that surround the site and the existing market conditions for each type.

## DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

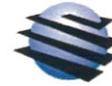
PROJECT # 14-3563.00

**Increased Capacity of System** – Does the new garage or expansion eliminate existing public parking? Can the displaced parking be absorbed back into the garage's capacity?

**Aesthetic Value** – The structure will need to blend in with the buildings adjacent to it. What kind of façade will be needed?

**Temporary Displacement of Close-In Parking** – A new garage or the expansion of an existing facility may require the exiting lot or a part of the existing parking be shut down for a period of time. How disruptive will this be to the current parking situation?

**Site Wayfinding** – The ability of a driver or pedestrian to locate the parking facility. Many of these sites already contain public or private parking. Is the site already easily located? Can signage be added to the downtown area to aid drivers in locating parking?



## SUMMARY OF SITE ALTERNATIVES

The final determination of the relative attractiveness of the alternative solutions must rest with the Reading Parking Authority and the Reading Redevelopment Authority. However, this site analysis provides a reasonable and supportable look at the criteria upon which to base such a decision. On the basis on this analysis, Site Alternatives 1B, and 2B are determined to be the highest-ranking potential solutions, respectively.

## ALTERNATIVES TO REDUCE PARKING DEMAND

### TDM

*What is TDM?* Techniques for decreasing parking demand are collectively known as Transportation Demand Management (TDM). Some simple strategies can result in more efficient use of transportation (parking and transit) resources by reducing the use of single occupancy vehicles (SOV) for commuting.

*Commuter financial incentives* refers to specific approaches designed to reduce parking demand by encouraging commuting by alternative modes or by encouraging multiple occupancy vehicle commuting. TDM programs reduce parking demand.

Parking is a very high cost amenity. However, downtown Reading parking appears to be priced at very nominal rates. Subsidized parking maximizes the demand for parking. While popular with parkers, low parking fees provide the greatest incentive to SOV (single occupancy vehicle) commuting. This is because subsidized parking increases parking demand by making high value parking spaces more affordable to a larger customer base. Low parking permit fees also provides a disincentive to use the alternatives to SOV-commuting and parking. This is in conflict with a management objective of reducing parking demand.

In our capitalistic economy, scarce resources are generally and most efficiently allocated by price. When other systems are employed, the system becomes less efficient. These less efficient methods of distributing parking include waiting lists, lotteries, seniority, department allocations, etc. These methods create inefficiency by not pricing parking according to what it is worth, and actually increase the demand for parking by making parking affordable to a larger pool of parking users.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

## THE "TRUE COST" OF PARKING

TDM methods work best when parking fees to the parker reflect the "True Cost" of parking. In a low parking fee environment, the city subsidizes the entire parking system, because the fees charged do not reflect the true cost of parking.

The following table cross-tabulates project development cost per space versus annual operating cost per space to show the monthly revenue required per space to break even (rounded to the nearest \$10).

**Table 28: Monthly Revenue per Parking Space Needed to Break Even**

		Annual Operating Expense Per Space									
		\$150	\$200	\$250	\$350	\$450	\$550	\$650	\$750	\$850	\$1,000
Project Development Costs Per Space	\$ 1,000	\$19	23	28	36	44	53	61	69	78	90
	\$ 3,000	33	37	41	49	58	66	74	83	91	103
	\$ 5,000	46	50	54	63	71	79	88	96	104	117
	\$ 8,000	66	70	74	83	91	99	108	116	124	137
	\$ 9,000	73	77	81	89	98	106	114	123	131	144
	\$ 10,000	79	84	88	96	104	113	121	129	138	150
	\$ 11,000	86	90	94	103	111	119	128	136	144	157
	\$ 12,000	93	97	101	109	118	126	134	143	151	164
	\$ 13,000	99	104	108	116	124	133	141	149	158	170
	\$ 14,000	106	110	114	123	131	139	148	156	164	177
	\$ 15,000	113	117	121	129	138	146	154	163	171	184
	\$ 16,000	119	124	128	136	144	153	161	169	178	190
	\$ 17,000	126	130	135	143	151	160	168	176	185	197
	\$ 18,000	133	137	141	150	158	166	175	183	191	204
	\$ 19,000	140	144	148	156	165	173	181	190	198	210
	\$ 20,000	146	150	155	163	171	180	188	196	205	217
\$ 30,000	213	217	221	230	238	246	255	263	271	284	
\$ 40,000	280	284	288	297	305	313	322	330	338	351	

Without including the cost of land in the cost of the parking facility, an unattended structure with a \$20,000 per space project cost (at 5%, 20 yr. amortization schedule) and \$200/space per year in operating expenses will require revenue of \$150/space per month (\$1,800 per year) to break even. This is typical of the fee that must be charged for employee parking in an unattended facility at an institution. However, if the structure is attended and the annual cost to operate is \$650, the annual cost to own and operate is closer to \$188/space/month (\$2,256 per year). The comparable project cost of \$3,000/space and \$150/space per year to own and operate an unattended surface parking lot results in a break-even point of \$33/space per month (\$396 per year). If a parking lot is attended, operating costs could shoot up to \$450/space per year, increasing the breakeven point to \$58/space/month (\$696 per year).

## DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

Those institutions charging parkers say \$10/month or less for surface parking are not even charging enough to recover costs of owning and operating surface parking, resulting in significant "sticker shock" when trying to figure out how to pay for structured, attended parking that can cost about \$200/month, or more, just to break even.

Structured parking isn't cheap. It commonly requires \$150 to \$200 per space in revenue per month to recover the capital and operating costs of building an above-grade structure on land already owned.

The key elements to reducing parking demand are rational pricing and choice. To successfully promote a TDM program, it is very important to price parking at market value, and *introduce a combination of incentives that restore those economic factors that promote the rational choice of commuting alternatives to SOV driving/parking.* Improved access does not come only in the form of a car and a parking space. Part of the goal of pricing parking is to encourage those people who can come to or travel within the downtown Reading neighborhood to travel together in one vehicle. This will free up parking spaces for those who truly need them. These methods include carpooling, vanpools, telecommuting, mass transit/bus incentives, cash out programs, and many more.

To derive the most benefit from implementing TDM strategies, it is recommended that the major employers in downtown Reading institute the following:

- Reduce the promotion of free parking as an employment incentive.
- In an effort to reintroduce some economic decision process on the part of employees, some meaningful percentage of parking cost should be included in employee flex plans.
- It is not necessary to change everyone's behavior. The change in choices of only a few parkers makes a significant difference in the number of new parking spaces that will be needed in the future.

Demand elasticity for parking is very situational, reflecting the cost of alternative modes, commuting distances, and pricing of competitive modes. Revenue generated by parking must first be used to manage the parking system. Proper equipment, such as multispace meters, proper signage for the public, and the right number of parking enforcement personnel must be in place.

It is not necessary to change everyone's behavior! The change in the choices of only a few parkers makes a significant difference in the number of new parking space that will be needed in the future.



OCTOBER 17, 2008

PROJECT # 14-3563.00

However, we recommend that the next priority for the revenue generated by our proposal be the promotion of alternatives to accessing the area.

Below we make recommendations that we consider to be the most productive uses of the parking revenues that are in many ways a byproduct of proper management measures. However, our recommendations do not mean that the parking revenue earned by the RPA will be sufficient to fulfill all these recommendations.

### *HIGHER PRICES FOR PARKING AND LOWER TRANSIT PRICES*

Most cities that enjoy significant transit ridership also have relatively high priced parking in its downtown. A plentiful parking supply in a downtown may be the result of a number of factors, including a large number of demolished building sites that have been converted to surface lots, high minimum parking requirements, or pressure by lenders on developers to build more parking than they otherwise might. A large number of parking spaces will also keep parking rates low, encouraging solo driving and parking, and discouraging transit ridership by making the cost of transit relatively high.<sup>5</sup>

However, increasingly there are exceptions to this phenomenon and new trends are being observed. Salt Lake City has experienced light rail ridership rights far above what the transit agency had predicted despite relatively low rates for parking in its central business district. Downtown Sacramento has tended to have relatively low parking occupancy rates in its downtown, likely as a result of relatively high prices for parking. As a result, a relatively high percentage of its employees commute to work using its light rail system. Even in Phoenix, the introduction of bus rapid transit has resulted in high ridership on the new lines. More significantly, one study found that 33% of riders on the new "Compo" buses had never ridden a Valley Metro Transit bus before the service was put into effect.

### *RIDESHARING*

The cost to carpool participants can be reduced in a number of ways. For example, a carpool permit can be offered at the same price as a regular permit, while allowing carpool members to share the cost, thus reducing their individual obligation toward parking expenses. A carpool permit might also be offered at low or no cost, with the

---

<sup>5</sup> While transit fares are typically low due to subsidization, the price of parking has to be relatively quite high to make up for the inconvenience of taking transit.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

stipulation that participants cannot purchase any other type of permit. Finally, a few programs at institutions with excessive parking cost, high parking demand, and little parking availability offer discounts, credits, and/or rebates based on the number of people in a carpool, the number of days per week a carpool arrives intact, or the length of time an individual has been carpooling. Almost universally, students living on campus are not eligible to participate in carpool programs. Allowing people who live within a defined area nearby or surrounding a destination may encourage people to drive as a carpool rather than to use another feasible alternative such as transit, bicycling, or walking.

**Occasional use permit.** This allow members of a carpool program to park on campus as a SOV for a certain number of days per year, most commonly 1 per month or 12 per year. Some programs give participants 12 occasional use permits up front and then allow them to purchase up to a certain number more through the course of a year.

**Guaranteed or Emergency Ride Home.** Emergency ride programs are useful in persuading new participants to join a rideshare program by reducing a potential objection that by ridesharing they will no longer be able to get home if ill, if a child is sick, if unexpected overtime is necessary at work, etc.

While preferential parking, occasional use permits, ride matching, and guaranteed or emergency ride home programs are the most common incentives offered as part of carpool programs today, additional incentives to promote ridesharing include:

- Opportunity to enter into prize drawings on each day the carpool arrives intact.
- Commuter rewards of \$1 every day a commuter carpools and a \$25 recruitment bonus for recruiting new participants.
- Up to \$160 per person of "Carpool Cash" can be applied toward the permit cost.

## ***FLEX PLAN WITH CASH-OUT OPTION***

Due to changes in tax law, parking allowances to cover parking or alternative commuting costs may be included within or structured as a "flex plan" (similar to insurance "cafeteria" flex plans), and may include financial payment to employees. Employees can use pre-tax money to pay for a parking space or for another travel mode.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

Flex plans allow the City to price parking at a universal price, yet shape the cafeteria allowance to subsidize some parking rates to different user groups at different rates. However, parking permit prices should be uniform in presentation, and the cost of subsidy would be absorbed by the unit through the flex plan allowance.

*Under current tax law, Parking Cash Out is a viable option.* Parking Cash Out means that commuters who are offered subsidized parking are also offered the cash equivalent if they use alternative travel modes. Cash benefits are taxable, but transit benefits are not.

Parking Cash Out is a simple, effective, and powerful method of reducing parking demand by increasing commuter choice and increasing utilization of the commuting alternatives. It is best offered through an overall program of managed employee parking benefits. Parking Cash Out is now more attractive as a benefit option because changes in the Federal tax code since 1999 have expanded its applicability. It is popular with both employees and employers because it serves as an employee benefit and it has the potential to reduce parking demand.

In essence, Parking Cash Out is an employee transportation benefit that offers employees the option of giving up their parking rights in exchange for its equivalent monetary value. For example, if the cost of a parking permit is \$66 per month, under a cash-out program the institution could also offer the choice of a cash payment to employees who choose to not park. Because offering such a choice adds a strong monetary incentive not to drive, parking cash out can result in substantial reductions in parking demand. It also improves equity among workers by offering equal benefits to parkers and non-parkers.

The key element is *choice*. Parking Cash Out gives employees the choice to forgo their parking space, pocket some of their entire now-unhidden parking subsidy, and commute using alternate modes. By being given an explicit choice whether or not to spend money on parking, drivers are made aware of the real value of their parking space. This simple act of uncovering the true value of parking and offering a choice can significantly reduce SOV commuting and parking demand. The elegance of Parking Cash Out is that, properly implemented, it can benefit everyone. Most importantly, Parking Cash Out provides additional motivation for employees to choose to use the commuting alternatives.

The key element is *choice*. The elegance of Parking Cash Out is that it can benefit everyone by providing additional motivation for employees to choose to use commuting alternatives.

## DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

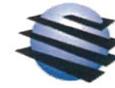
Parking Cash Out offers employees the option of receiving taxable cash (up to \$115 in value) in lieu of any parking subsidy offered. In some cases, employers offer their employees the cash value of a rented parking space in lieu of the space itself. Employees may refuse the cash and keep the tax-free parking subsidy or accept tax-free transit or vanpooling benefits (up to \$40 worth) in its place—with any balance in taxable cash. If an employee accepts the cash option, the cash is subject to income taxes for that employee. However, both parties ultimately benefit from implementing parking cash-out – employees' income rises, while employers' business expenses decrease from not having to subsidize or build as much parking.

### Program Qualifications:

- To qualify, employees must elect to have their parking permit or bus pass placed on payroll deduction.
- Eligible permit expense includes all annual garage and surface lot permits, motorcycle permits, monthly parking permits and alternative transportation permits.
- Employees who purchase two types of permits for themselves may include both permits as pre-tax subject to the IRS limitation of \$115 per month.
- Employees must elect to have their parking permit on payroll deduction to obtain the pre-tax benefit and cannot utilize payroll deduction or receive the pre-tax benefit for other family members' permits or bus passes.
- Employees who purchase both a permit and a bus pass may include both items as pre-tax subject to the IRS limitation of \$115/month for the permit and \$40/month for the bus pass.
- If the employee must replace a lost or stolen permit or bus pass, the replacement fee is considered a cost of parking or transit expense and will be eligible for the pre-tax benefit if the replacement fee is processed through payroll deduction and does not exceed the monthly maximum.
- Eligible transit expenses include all semester, academic, and annual bus passes sold through the RPA.
- Visitor, football, basketball, and other special event permits do not qualify.
- Refunds on parking permits or bus passes are considered taxable to the employee if the permit was originally purchased on a pre-tax basis.
- Citations are not eligible for pre-tax treatment.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

Free emergency ride home services encourage employees to use alternative transportation programs. Such programs give employees the ability to get home or to a daycare if an emergency arises.

## **BICYCLE IMPROVEMENTS**

A recent article in the *Los Angeles Times* highlighted the growing popularity of bicycle valet stations. One patron in Long Beach, where the station was opened ten years ago, raised an excellent point; "you can have all the bike lanes you want, but when you get to your location, you need a place to park."

In an area such as downtown Reading, for some people bicycles can offer a reasonable transportation alternative to automobiles for certain kinds of trips during certain times of the year. Although there are some bike racks located around the city and commercial areas in Reading, bike racks do not inspire the same level of confidence or convenience as a manned bicycle station. While bicycles are becoming more expensive, thieves are also finding more ways to steal them or their attached accessories. Further, bike racks often fill up, forcing cyclists to try to lock their bikes in increasingly precarious locations. Cyclists feel more comfortable knowing that someone is watching their bike.

Bicycle stations are a parking demand reduction strategy as well as an amenity for the community. The City of Santa Barbara recently opened such a station, which is funded by its downtown (automobile) parking fees. According to the *Los Angeles Times*, Santa Barbara's bicycle station contains \$80,000 worth of equipment and costs \$25,000 per year to operate.<sup>6</sup> The City of Santa Monica currently parks over 200 bicycles at the bicycle station at one of its Sunday farmers' markets and has plans to create a significantly larger station. The station was set up in part to reduce an impacted parking situation at the market. Providing parking for bicycles is significantly less expensive than doing so for cars and takes up significantly less real estate. We recommend that parking revenues be used to fund at least one bicycle valet station in Reading.

Other bicycle improvements that could be made to attract new cyclists include providing bike racks on the front of BARTA buses, providing on-street bicycle lanes, and providing additional on-street racks while improving lighting, security, bike paths and signage. Bloomington, Illinois went further than just installing bike racks and defining bike

---

<sup>6</sup> We assume that this figure does not include staff salaries.



OCTOBER 17, 2008

PROJECT # 14-3563.00

paths. Through the Community Bike Project, Bloomington has found a way to educate the community about bike safety and maintenance. Local bike shops run seminars to teach children and adults alike in order to ensure that bikes remain a viable alternative transportation source. In addition, the shops provide opportunities for community members to earn or buy a bicycle.

## *PEDESTRIAN IMPROVEMENTS*

Determining how far people are willing and able to walk from their parking space to their destination is one of the most important factors in planning for parking. Increasing the distance that people will walk increases the pool of available parking spaces that may be used. Further, it is likely that while one block may suffer from impacted parking during the day, one or two blocks away another block may experience its highest demand at night. This increases the possibility of sharing parking between different land uses in the same neighborhood. Finally, for neighborhood residents or employees, the willingness to walk longer distances may make the difference between whether or not they drive their vehicle at all.

In some cases, the environment in which people walk may play as important a role in their decision to walk, as the distance plays. Pedestrian improvements, such as shade trees, wide sidewalks, pedestrian "bulb outs"<sup>7</sup> and streets that feel safe to walk and cross not only enhance the attractiveness of an area, but improve its "walkability." Providing clean, comfortable and safe transit stops along neighborhood sidewalks improves both the walkability of a street and the experience of the transit user as well.

The City of Pasadena's Old Town district is one of many that has used parking revenue to improve the pedestrian environment in its parking benefit district. Some Old Town parking meters advertise the fact that revenue from parking has been used to enhance the area and provide improvements. In this way, pedestrian improvements not only encourage people to walk in an area, but in some cases has been shown to make them feel that the money spent on parking is worth paying.

---

<sup>7</sup> Referring to one of its street improvement projects, the City of Corvallis, Oregon described "bulb outs" as "the widening of a typical street corner in such a way that it appears to "bulb out" into the intersection. The purpose of these bulbs is to shorten the distance that a person has to walk across the street at an intersection, thereby creating a safer and more pedestrian-friendly environment." They also slow down cars making right turns allowing pedestrians to feel safer.



OCTOBER 17, 2008

PROJECT # 14-3563.00

## WAYFINDING/SIGNAGE

Pedestrian wayfinding serves to communicate clear and concise functional wayfinding information. It enhances pedestrian circulation and sense of place, while directing visitors and residents to central destinations, particularly cultural attractions and government buildings as well as retail. It is also intended to increase the comfort levels of visitors and residents unfamiliar with downtown areas, prolonging their stays.

Among the elements to consider when designing and implementing a pedestrian wayfinding system are pedestrian and vehicle traffic patterns, destination points, the city's plans for development and construction, and the need for special signs for international visitors, disabled individuals and seniors. Because drivers, as well as the intended pedestrians, are likely to utilize the signage, it is important that directional arrows follow traffic flow. (i.e. the arrow to the museum doesn't point north, when the street is one way, south.)

We recommend implementing a comprehensive signage program to maximize visitor awareness to public parking locations. The signage improvements should be prepared in conjunction with any enhancements to the parking resources, in addition to any streetscape improvements along the corridor roadways. As is true with any good communications medium, signs should be brief, precise, and appropriate, such as "Public Parking" or "Free Public Parking." Further, the signage should guide the driver from the main thoroughfares into the parking lots.

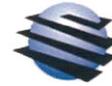
At present, there appears to be no consistent parking signage for off-street parking areas or along the primary thoroughfares.

Each parking area has its own set of wayfinding/signage requirements. These requirements present specific questions concerning the needs and concerns of the users to be answered during the design of the signs, including:

- What are the points at which information is needed?
- What information is needed?
- How should this information be presented?

## DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

- Will there be a high percentage of first time visitors to the hospital, or is the parking supply used by the same people every day?
- Are there special sign requirements for accessible parking or bilingual patrons?
- Are there choices in traffic patterns that must be presented to drivers such as directions to parking near the entrance to an MOB or exits to different streets?

It is also important that general rules for sign design and placement should be followed when planning the streetscape improvements.

- All signage should have a general organizing principle consistently evident in the system.
- Direction signage for both pedestrians and vehicles must be continuous (i.e., repeated at each point of choice) until the destination is reached. Very minimal signage exists at the point of parking that directs patrons back to the various entrances of buildings.
- Signs should be placed in consistent and therefore predictable locations.

In 1995, Philadelphia implemented the largest comprehensive pedestrian sign system in North America. The clear and attractive signs have been very successful in assisting residents and visitors alike in finding their way quickly and easily around downtown. Indianapolis, Indiana and Washington, D.C. are two examples of cities with successful wayfinding signage systems.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



OCTOBER 17, 2008

PROJECT # 14-3563.00

## FEE-IN-LIEU

A number of cities have tried to find a means to advance the concept of shared parking by motivating developers or property owners who create the need for additional parking to contribute some or all of the cost of developing additional parking in municipal facilities. The approach provides the developer with an opportunity to contribute a predetermined amount for each required parking space not constructed on site. Funds contributed to the in-lieu account are used by the city to provide an appropriate number of spaces in municipal parking facilities. Such a fund must be sufficient to cost-effectively develop adequate parking within reasonable proximity and in a timely manner to each new development. The city must charge a sufficient fee-in-lieu to cover the cost of land and construction, even when it isn't immediately turning the fee into parking spaces.

In addition to the purchase of land and cost of construction, in-lieu fees may be used to convert an existing private parking facility to public use, maintain public parking created through the program, fund parking program enforcement activities, create and maintain bicycle parking and other items for parking and transportation improvements.

## PARKING AND THE LIGHT RAIL SYSTEM

Although specific figures were hard to come by, city staffs expressed confidence that their light rail systems were reducing the demand for parking. This appeared to be especially true in Portland, San Diego, and Sacramento, where downtown parking can be expensive and the light rail systems are well used. It is interesting to note that in Portland in particular, drivers help to subsidize the light rail system; about \$2 million dollars per year is allocated to pay off the debt service associated with the light rail system.

In most cities with light rail, offering the service free within the downtown area to reduce parking demand is not a common policy. St. Louis offers such a service for limited hours every day. Tacoma, Washington has free light rail service in the center city. Downtown Seattle contains a ride-free zone for all transit in its downtown.

While rail service is currently suspended along the R6 Norristown Line, the Montgomery County Planning Commission (MCPC), in cooperation with the Delaware Valley Regional Planning Commission (DVRPC), has initiated the R6 Norristown Line Service Extension Study<sup>8</sup>. The

### Existing Fee-in-Lieu Programs

Town of Davie, Florida  
Orlando, Florida  
City of Bend, Oregon  
Corvallis, Oregon  
Town of Jackson, Wyoming  
Berkley, California  
Davis, California  
Laguna Beach, California  
Wheaton, Illinois  
Sioux Falls, South Dakota

<sup>8</sup> <http://www.bartabus.com/>, updated 03/04/08

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

extension study will determine the feasibility of restoring passenger rail service between communities along the U.S. Route 422 corridor in Montgomery, Chester, and Berks counties and Center City Philadelphia. The increasing traffic along U.S. Route 422 has encouraged exploration into other transportation options for residents commuting to Philadelphia and could also provide a catalyst for development and redevelopment in well established towns such as Phoenixville, Royersford, Pottstown, and Reading. It is questionable whether free light rail service within the downtown would reduce parking demand of SOVs. Compared to buses, shuttle and other kinds of free transit, the number of stops is significantly less.

## **FREE TRANSIT AND ECO PASSES**

Free transit for students, faculty, and staff is increasingly used at universities around the country to reduce the demand for parking on campuses. However, in the same way, companies may buy monthly transit passes for their employees to reduce parking demand in office buildings. Buying a monthly transit pass is almost always cheaper than paying the cost of a monthly parking permit. For a developer, the opportunity to agree with the city to outlay a small monthly fee for a transit pass (typically \$50 - \$60) for an employee instead of a much larger amount for the monthly amortized price of a parking space (which, including operating expenses can start at more than \$150).

Eco Passes are offered to employees by transit agencies in just a few cities, including San Jose, Salt Lake City, and Denver. Eco Passes allow all the employees of the firm which purchases the passes to ride transit free, whether every day, a few times a month, or just for unusual circumstances, such as when the employee's car is being repaired. Because only a percentage of employees will ride transit on a regular basis, transit agencies charge employers a fraction of what they would if they were providing every employee with a monthly transit permit. However, the option of traveling to work at no cost results in an increase in the number of employees who do not drive to work on any given day and has been shown to reduce parking demand at the firms that purchase them. As a result, cities such as San Jose, for example, offer reductions in parking requirements to developers who agree to provide passes to employees who will work in their building.

In some sense, an Eco Pass program operates in an opposite fashion from the typical employer-provided transit plans, in which an employer purchases a transit pass for any employee who requests it. In an Eco Pass program, the employer *must* purchase a transit pass for *all* its employees. According to the Silicon Valley's Santa Clara Valley

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

Transit Authority (VTA) website, "the deeply-discounted prices were structured to offer employers a cost-effective way to provide transit passes as an employee benefit." Rather than reward those who already may take transit, the purpose of an Eco Pass is to encourage employees who don't use public transit to change their commute patterns, if even on an occasional basis, by making the opportunity to take transit free and readily available. According to VTA, "Eco Pass encourages employees who don't use public transit to change their commute patterns."<sup>9</sup> In this way they are a unique policy tool and different from a transit pass purchased for each individual employee.

The VTA began the Eco Pass program in 1996, with six employers and roughly 18,000 employees. By 2005, 86 employers, universities, and residential communities<sup>10</sup> were participating, representing 136,000 Eco Pass holders.<sup>11</sup> Eco Pass participants include software maker Adobe, Lockheed Martin, San Jose State University, and a number of the area's major hotels.

## REAL-TIME TRANSIT AND PARKING INFORMATION

The traffic congestion in the San Francisco Bay Area, already difficult, is expected to deteriorate with a projected one million new residents by 2020. The California Department of Transportation sees increasing ridership on regional mass transit as a viable option for reducing commuting time and congestion. Unfortunately, parking at most of the 31 suburban Bay Area Rapid Transit (BART) District stations has been at or near capacity during peak periods. Additionally, the rising costs of land complicated efforts to increase parking at the transit facilities.

Upon the request of the California Department of Transportation and BART, researchers from California Partners for Advanced Transit and Highways (PATH) implemented field tests at the Rockridge BART station to evaluate the feasibility of the "Smart Parking Management System." The system typically provides real-time information to motorists about the number of available parking spaces in park-and-ride lots, the departure time of the next train, and downstream roadway traffic conditions via changeable message signs (CMSs).

The Smart Parking System implemented on the commuting corridor into downtown Oakland and San Francisco integrates traffic count data



<sup>9</sup> [http://www.vta.org/ecopass/ecopass\\_corp/epfaq.html](http://www.vta.org/ecopass/ecopass_corp/epfaq.html)

<sup>10</sup> The residential program began in 1999. It allows developers and landlords to sign up with the agency to qualify their residents for the same discounted rate as offered to corporate employers.

<sup>11</sup> Santa Clara Valley Transit Authority News Release, November 30, 2005.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

from entrance and exit sensors at the BART station parking lot with an intelligent reservation system in order to provide current parking availability. Participation was maximized by limiting the number of reservations a commuter could make in a two week period to three.

User evaluations indicate that the Smart Parking program was successful in attracting a new user population to BART. More than 30% of survey respondents stated that Smart Parking encouraged them to use BART instead of driving alone to their work place. A relatively significant 55.9% of those surveyed acknowledged the same for commuting to an off-site work location. BART ridership increased by 5.5 trips per month for on-site work commutes and by 4 trips per month for off-site commutes.

This test indicates that expanded use of dynamic information and intelligent reservations systems will improve the efficiency of existing BART parking facilities and decrease SOV commuting. As an additional benefit, new capital expenditures for the construction of more parking may be avoided.

## TDM SUMMARY

The tables below summarize the goals and issues addressed by each TDM alternative addressed above, associated implementation plans, any phasing and schedule considerations for the improvements, challenges associated with the alternative, potential revenue sources and the level of effectiveness, applicability and feasibility.

## BACKGROUND AND HISTORY

The Reading Parking Authority (The Authority) was established in 1953 through an ordinance passed by the Reading City Council. It was later incorporated by the City of Reading in 1957. The three departments: Administrative, Off/On-Street Operations and Maintenance of the Authority are governed by a five member Board of Directors, appointed by the Mayor of Reading.

Although the Authority was initially established for a 50-year term, the term has been extended to cover the life of bonds issued to cover debt.

The Authority is self-supporting. That is, the facilities, staff and operations are supported through parking revenues collected from the on and off-street parking operations.

## PARKING OPERATION

The Authority currently owns and/or operates parking at nine structured and five surface parking facilities and over 1,100 on-street spaces. The following is a profile of these facilities:

## THE READING PARKING AUTHORITY

OCTOBER 17, 2008

PROJECT # 14-3563.00

*SOUTH PENN GARAGE*

Ownership:	Reading Parking Authority
Capacity:	985 Spaces
Location:	Cherry, Franklin, 7 <sup>th</sup> and 6 <sup>th</sup> Streets (Block 52)
Monthly Parking:	\$72
	939 current monthly contracts (95%)
Daily Parking:	Up to 1 Hour = \$2 Each Hour After = \$1 Daily Maximum = \$8



Photo 1: South Penn Garage

*4<sup>TH</sup> AND CHERRY GARAGE*

Ownership:	Reading Parking Authority
Capacity:	635 Spaces
Location:	Cherry, Franklin, 4 <sup>th</sup> and Wood Streets (Block 21)
Monthly Parking:	\$72
	531 current monthly contracts (84%)
Daily Parking:	Up to 1 Hour = \$2 Each Hour After = \$1 Daily Maximum = \$8

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

## CHIARELLI GARAGE

Ownership:	Reading Parking Authority
Capacity:	500 Spaces
Location:	Washington, Court, 3 <sup>rd</sup> and Carpenter Streets (Block 8)
Monthly Parking:	\$72 420 current monthly contracts (84%)
Daily Parking:	Up to 1 Hour = \$2 Each Hour After = \$1 Daily Maximum = \$8



Photo 3: Chiarelli Garage

## WYNDHAM GARAGE

Ownership:	Reading Parking Authority
Capacity:	300 Spaces
Location:	Washington, Court, 5 <sup>th</sup> and Madison Streets (Block 36)
Monthly Parking:	\$80 173 current monthly contracts <sup>14</sup> (58%)
Daily Parking <sup>15</sup> :	Up to 1 Hour = \$2 Each Hour After = \$1 Daily Maximum = \$8

<sup>14</sup> One hundred parking spaces by contract must remain dedicated to Wyndham hotel operations.

<sup>15</sup> Hotel retains parking revenues from Saturday and Sunday. Daily parking revenues flow to the Parking Authority.

OCTOBER 17, 2008

PROJECT # 14-3563.00

*REED AND COURT GARAGE*

Ownership:	Reading Parking Authority		
Capacity:	526 Spaces		
Location:	Court, Reed, 7th and 6 <sup>th</sup> Streets (Block 44)		
Monthly Parking:	\$80	246 current monthly contracts (47%)	
Daily Parking:	Up to 1 Hour =	\$2	
	Second Hour =	\$2	
	Each Hour After =	\$1	
	Daily Maximum =	\$10	



Photo 4: Reed and Court Garage

*POPLAR AND WALNUT GARAGE*

Ownership:	Reading Parking Authority		
Capacity:	1,024 Spaces		
Location:	Washington, Walnut, Poplar and 7th Streets (Block 33)		
Monthly Parking:	\$80	1,406 current monthly contracts (137%)	
Daily Parking:	Up to 1 Hour =	\$2	
	Each Hour After =	\$1	
	Daily Maximum =	\$8	

OCTOBER 17, 2008

PROJECT # 14-3563.00

*2<sup>ND</sup> AND WASHINGTON GARAGE*

Ownership:	Reading Parking Authority
Capacity:	432 Spaces
Location:	Washington, Court, 2nd and Thorn Streets (Block 6)
Monthly Parking:	\$72 432 current monthly contracts (100%)
Daily Parking:	Up to 1 Hour = \$2 Each Hour After = \$1 Daily Maximum = \$8
Retail Space:	16,500 square feet



Photo 5: 2<sup>nd</sup> and Washington Garage

*FRONT AND WASHINGTON GARAGE*

Ownership:	Reading Parking Authority
Capacity:	750 Spaces
Location:	Washington, Court, and Front Streets (Block Expanded Zone)
Monthly Parking:	\$67 754 current monthly contracts (1.01)
Daily Parking:	Up to 1 Hour = \$2 Each Hour After = \$1 Daily Maximum = \$8

OCTOBER 17, 2008

PROJECT # 14-3563.00

*BARTA INTER MODAL GARAGE*

Ownership:	BARTA
Capacity:	100 Spaces
Location:	Franklin, Cherry, 7th and 8th Streets (Block 53)
Monthly Parking:	\$72 90 current monthly contracts (90%)
Daily Parking:	Up to 1 Hour = \$2 Each Hour After = \$1 Daily Maximum = \$8



Photo 6: BARTA Intermodal Garage

*BARTA P-N-T GARAGE*

Ownership:	BARTA
Capacity:	350 Spaces
Location:	Franklin, Chestnut, 7th and Plum Streets (Block 58)
Monthly Parking:	\$64 36 current monthly contracts (10%)
Daily Parking:	Up to 1 Hour = \$2 Each Hour After = \$1 Daily Maximum = \$8

OCTOBER 17, 2008

PROJECT # 14-3563.00

**STATE LOT (METERED)**

Ownership:	Reading Redevelopment Agency
Capacity:	39 Spaces
Location:	Penn and 7 <sup>th</sup> Streets (Block 48)
Daily Parking:	\$0.25 for 15 minutes Up to 3 Hours

**6<sup>TH</sup> AND CHERRY LOT (METERED)**

Ownership:	Reading Parking Authority
Capacity:	98 Spaces
Location:	Cherry, 5 <sup>th</sup> and 6 <sup>th</sup> Streets (Block 51)
Daily Parking:	\$0.25 for 20 minutes Up to 2 Hours

**PENN COURT LOT**

Ownership:	Reading Parking Authority
Capacity:	429 Spaces
Location:	Court, Penn, 7 <sup>th</sup> and 8 <sup>th</sup> Streets (Block 45)
Monthly Parking:	\$64 504 current monthly contracts (117%)

OCTOBER 17, 2008

PROJECT # 14-3563.00

7<sup>TH</sup> AND WASHINGTON LOT

Ownership:	Reading Parking Authority
Capacity:	140 Spaces
Location:	Washington, Court, 7 <sup>th</sup> and Poplar (Block 40)
Monthly Parking:	\$64
	147 current monthly contracts (105%)

OCTOBER 17, 2008

PROJECT # 14-3563.00

### HISTORICAL FINANCIAL PERFORMANCE

In the past four years the RPA has sustained an increasing Net Operating Income (NOI). Parking fees were slightly higher in FY2007, compared to FY2006 due to the opening of the 2<sup>nd</sup> & Washington garage during the last quarter. A significant gain in revenues and NOI was recognized from FY2003 to FY2004. This can be contributed to substantial increases in special event revenue from the Sovereign Center and Performing Arts Center, and violation revenue was increased due to a 60% fee hike in August 2004 for violations. A parking rate increase was also administered in 2004. Monthly permit rates were increased by about 5 percent. The daily maximum rate was increased from \$8 to \$10 at the Reed and Court garage.

### FINANCIAL SUMMARY

**DOWNTOWN PARKING STUDY**  
 READING, PENNSYLVANIA



OCTOBER 17, 2008

PROJECT # 14-3563.00

**Table 30: RPA Historical Statement of Operations**

Year	2007	2006	2005	2004	2003
<b>REVENUES</b>					
Parking Fees	4,907,693	4,684,340	4,388,949	4,177,635	3,999,748
Violations & Meters	\$2,827,824	\$2,557,180	\$1,929,556	\$1,690,639	\$1,406,104
Management Fees	\$34,456	\$32,203	\$49,843	\$113,227	\$125,481
<b>Operating Revenues</b>	<b>\$7,769,973</b>	<b>\$7,273,723</b>	<b>\$6,368,348</b>	<b>\$5,981,501</b>	<b>\$5,531,333</b>
<b>EXPENSES</b>					
Depreciation	\$1,059,684	\$968,701	\$876,806	\$874,751	\$875,316
Insurance	248,350	301,575	323,359	304,323	280,019
Rent-Meters	400,000	400,000	400,000	400,000	400,000
Utilities	276,349	213,589	211,990	240,336	233,847
Wages	1,110,801	1,045,164	957,893	952,215	861,303
Other Expenses	596,974	548,947	574,469	544,755	514,880
<b>Operating &amp; Administrative Expenses</b>	<b>\$3,692,158</b>	<b>\$3,477,976</b>	<b>\$3,344,517</b>	<b>\$3,316,380</b>	<b>\$3,165,365</b>
<b>NET OPERATING INCOME before Debt Payments</b>	<b>\$4,077,815</b>	<b>\$3,795,747</b>	<b>\$3,023,831</b>	<b>\$2,665,121</b>	<b>\$2,365,968</b>
<b>Total other revenues (expenses)</b>	<b>(\$1,403,348)</b>	<b>(\$1,560,507)</b>	<b>(\$1,231,121)</b>	<b>(\$1,315,369)</b>	<b>(\$1,879,764)</b>
<b>NET INCOME after Debt Payments</b>	<b>\$2,674,467</b>	<b>\$2,235,240</b>	<b>\$1,792,710</b>	<b>\$1,349,752</b>	<b>\$486,204</b>

Source: Reading Parking Authority, as audited by Herbein+Company, Inc.

OCTOBER 17, 2008

PROJECT # 14-3563.00

## REPAIR/REPLACEMENT OF EXISTING FACILITIES

## CAPITAL NEEDS

In 2001, Walker Parking Consultants completed a Capital Improvement Protection Program for the facilities owned by the RPA. Condition appraisals at that time stated the following conditions:

- 2 and ½ are in poor condition with a projected short life span (5 to 15 years)
- 2 and ½ are in fair condition with a projected medium life span (10 to 30 years)
- 2 are in good condition with a projected long life span (25+years)

The 2001 document recommended a budget of \$600,000 per year for repair and maintenance for the entire system over a 10-year period. The budget represented an outlay of 1% of replacement value per year. Some improvements have been made. However, The RPA reports that it currently budgets between \$50,000 and \$75,000 per year for repair and maintenance. This is grossly under-budgeted. If repairs and maintenance are deferred, significant capital may be required toward replacement of decaying facilities.

Since 2001, construction costs have increased significantly, rising much faster than the rate of inflation. For example, in a study published by R.S. Means in 2008, construction costs in the Philadelphia area increased by 4.6% from 2007 to 2008. This analysis assumes that within the 2001 to 2008 time period, the costs increased by 5% annually. Therefore, we recommend an adjusted budget for repair and maintenance equivalent to \$876,000 per year beginning in year 2009.

The RPA has since added the 2<sup>nd</sup> & Washington facility to its assets. The RPA should budget about \$32,000 annually for repair and maintenance to the 425-space facility. Additionally, as future parking is constructed, Walker recommends that \$75 per space is set aside in a repair and replacement fund.

**Table 32: Recommended Repair & Replacement Budget**

	<u>Annual Budget</u>
2001 CIP Recommended	\$600,000
Adjusted to 2008 \$	\$844,000
Added 2nd & Washington Facility	\$32,000
Recommended Repair & Maintenance Annual Budget	\$876,000

Source: Walker Parking Consultants

## NEW FACILITIES

In addition to operating expenses, Walker highly recommends that funds be set-aside on a regular basis to cover structural maintenance costs. We suggest that a *minimum of \$75 per space* annually be placed in a sinking fund. Once a sinking fund is established, contributions to this fund accumulate over time and are available to cover structural maintenance and structural repairs. Even the best-designed and constructed parking facility requires structural maintenance. For example, expansion joints need to be replaced and concrete invariably deteriorates over time and needs to be repaired to ensure safety and to prevent further deterioration.

The structural maintenance cost typically represents the largest portion of the total maintenance budget. Facility owners tend to grossly underestimate the structural maintenance cost and budget inadequately for timely corrective actions that must be performed to cost-effectively extend the service life of the facility. Also, the adverse impact of ineffective structure maintenance is deferred. Therefore, it is difficult for most owners to recognize or realize the long-term benefits of timely corrective and preventive maintenance actions. The cost of structure maintenance is relatively small considering the potential liability associated with the neglect to properly maintain the facility.

Table 33 provides a brief description of typical maintenance costs that can be anticipated for atypical parking structure. For the purpose of this analysis, Walker shows 25 years of anticipated maintenance costs. This does not mean that the projected useful life of the parking structures will be 25 years. The table is presented to provide an understanding of the conceptual maintenance and repair expenses associated with a structured parking facility.

OCTOBER 17, 2008

PROJECT # 14-3563.00

**Table 33: Conceptual Maintenance and Repair Costs**

Item Description	Total Cost	Frequency	\$/SF/YR
<b>Replacement/preventive costs</b>			
<b>Sealants</b>			
Replace tee/tee and cove joint sealants	\$ 56,000	10	\$ 0.04
Sealant at column/spandrel joints	3,000	10	-
Architectural sealants	35,000	12	0.02
Traffic coating strip at perimeter	54,000	12	0.04
Penetrating sealer at supported levels	38,000	5	0.06
Replace drainage system	80,000	25	0.03
Supplemental drains and piping	15,000	25	-
Replace lighting/conduits	235,000	20	0.09
Replace light fixtures	60,000	20	0.02
Replace parking and revenue control	40,000	10	0.03
Replace signage	23,000	25	0.01
Replace expansion joints	12,000	10	0.01
<b>Periodic repairs and/or corrective actions</b>			
Maintain miscellaneous joint sealants	1,300	1	0.01
Maintain traffic topping	1,200	1	0.01
Floor slab patching	3,000	1	0.02
Beam and column repairs	1,000	3	-
Miscellaneous stairtower maintenance	1,000	1	0.01
Maintain drainage system	1,000	3	-
Maintain parking/revenue control equipment	2,000	1	0.02
Annual inspection and testing	5,000	1	0.05
<b>Average annual maintenance cost per SF per year</b>			<b>\$ 0.47</b>

Repair Schedule for:	\$ per SF	SF per Space	\$ per Space	Annual Cost
1 to 5 years	\$ 0.18	310	\$ 55.80	\$ 83,700
6 to 10 years	\$ 0.26	310	\$ 80.60	\$ 120,900
11 to 25 years	\$ 0.47	310	\$ 145.70	\$ 218,550

Note: Figures above are based on historical data and conceptual in nature. The above numbers will deviate from actual costs incurred.

Example Repair Schedule is based on a 1,000 space parking structure.

Source: *Parking Structures 2nd Edition: Planning, Design, Construction, Maintenance and Repair*

The age and the geographic location of a parking facility will impact maintenance costs. Older facilities require more maintenance than a new facility. The cost of maintaining the structure will also increase as the structure ages. A structure located in a moderate climatic region is likely to require less maintenance than a structure located in the northern climatic region, which is subjected to harsher exposure conditions.

OCTOBER 17, 2008

PROJECT # 14-3563.00

Additionally, the structural system of the parking facility will influence maintenance costs. However, it is important to realize that the true cost over the life of the structure consists of two components – the initial cost to construct the facility, and the maintenance cost. Structural systems that initially cost less may eventually turn out to be more expensive considering the higher cost of maintaining the structure over the entire service life of the facility.

The periodic structural maintenance includes items such as patching concrete spalls and delaminations in floor slabs, beams, columns, walls, etc. In many instances there are maintenance costs associated with the topping membranes, the routing and sealing of joints and cracks, and the expansion/construction joint repairs. The cost of these repairs can vary significantly from one structure to another. The factors that will impact the maintenance cost include but are not limited to the value the owner places on the maintenance of the facility, the local climate, and the age of the structure.

A review by a restoration specialist is usually necessary to identify the preventive maintenance needs of a facility. In addition to the annual or other periodic inspections, materials testing and examinations may also be necessary to determine and recommend maintenance measures. One example of this is the chloride monitoring testing that is necessary to monitor the effectiveness of sealers and coatings. The chloride testing also helps to determine the frequency and extent of sealer reapplication. The results of the periodic inspections may also indicate the need for other material examinations and laboratory testing.

Walker recommends setting aside \$60,000 per year for the proposed 800-space Convention Hotel Garage.

OCTOBER 17, 2008

PROJECT # 14-3563.00

Walker evaluated the existing RPA operations and made financial projections for the next ten years of operations. Within these projections we considered three scenarios:

## FINANCIAL ANALYSIS

1. "Do nothing" This scenario projects the RPA's financial performance with the assumption that parking rates remain static and no new facilities come on line. Operating expenses escalate at 3 percent per year to adjust for inflation. In addition to operating expenses, Walker recommends a budgetary inclusion for \$876,000 in a repair and replacement fund to cover long-term maintenance.
2. "Do nothing plus 800-space Convention Hotel Garage" Scenario 1, plus the implementation of an 800-space garage, displacing the existing 429-space Penn Court Lot. Three hundred spaces will reportedly be non-revenue generating spaces to be used by the proposed hotel.
3. "System Rate Increases plus 800-space Convention Hotel Garage" Scenario 2, adjusted to reflect parking rate increases, as shown on page 101.

## SYSTEM ANALYSIS

### DO NOTHING

Under this scenario, parking revenues will remain somewhat static, assuming that local economic conditions do not regress and/or that gasoline prices are stable; plus the Authority does not increase parking rates or adjust expired contract rates, parking revenues will remain somewhat static. However, expenses will continually escalate by at least the rate of inflation. Considering the recommended budgetary consideration for the repair and replacement fund, expenses will increase by \$876,000 beyond inflation. The following Proforma identifies the impact of a "Do Nothing" scenario on current operations.

Without increases to parking rates, the net income is projected to be negative as early as 2009.

**DOWNTOWN PARKING STUDY**  
READING, PENNSYLVANIA



OCTOBER 17, 2008

PROJECT # 14-3563.00

Table 34: Do Nothing Scenario

**OPERATING PROJECTIONS - READING PARKING AUTHORITY** (FIGURES STATED IN \$000'S)

Year	2009	2010	2011	2012	2013	2014
<b>REVENUES</b>						
Parking Fees	\$ 4,908	\$ 4,908	\$ 4,908	\$ 4,908	\$ 4,908	\$ 4,908
Violations & Meters	2,826	2,826	2,826	2,826	2,826	2,826
Management Fees	35	35	35	35	35	35
<b>Operating Revenues</b>	<b>\$7,768</b>	<b>\$7,768</b>	<b>\$7,768</b>	<b>\$7,768</b>	<b>\$7,768</b>	<b>\$7,768</b>
<b>EXPENSES</b>						
Depreciation	\$ (1,124)	\$ (1,158)	\$ (1,193)	\$ (1,229)	\$ (1,265)	\$ (1,303)
Insurance	(264)	(271)	(280)	(288)	(297)	(305)
Rent-Meters	(424)	(437)	(450)	(464)	(478)	(492)
Utilities	(293)	(302)	(311)	(320)	(330)	(340)
Wages	(1,178)	(1,214)	(1,250)	(1,288)	(1,326)	(1,366)
Other Expenses	(633)	(652)	(672)	(692)	(713)	(734)
Repair & Replacement Fund	(876)	(876)	(876)	(876)	(876)	(876)
<b>Operating &amp; Administrative Expenses</b>	<b>\$ (4,793)</b>	<b>\$ (4,911)</b>	<b>\$ (5,032)</b>	<b>\$ (5,156)</b>	<b>\$ (5,285)</b>	<b>\$ (5,417)</b>
<b>NET OPERATING INCOME</b>	<b>\$2,975</b>	<b>\$2,857</b>	<b>\$2,736</b>	<b>\$2,612</b>	<b>\$2,483</b>	<b>\$2,351</b>
<b>Debt Service and Capital Leases</b>	<b>(\$3,385)</b>	<b>(\$3,392)</b>	<b>(\$3,394)</b>	<b>(\$3,403)</b>	<b>(\$3,411)</b>	<b>(\$3,387)</b>
<b>NET INCOME</b>	<b>(\$410)</b>	<b>(\$535)</b>	<b>(\$658)</b>	<b>(\$791)</b>	<b>(\$928)</b>	<b>(\$1,036)</b>

Source: Walker Parking Consultants, 9/14/2008  
Note: Depreciation, a non-cash item, is included.



**DO NOTHING PLUS 800-SPACE CONVENTION HOTEL GARAGE**

The RPA has committed to 60% participation in the construction of the 800-space Convention Hotel Garage; this will displace the existing Penn Court Lot. The following table illustrates the projected RPA system performance including the proposed facility and assumes no increases to parking rates within the existing facilities. The proposed garage is assumed to open May 1, 2010.

**DOWNTOWN PARKING STUDY**  
READING, PENNSYLVANIA



OCTOBER 17, 2008

PROJECT # 14-3563.00

Table 35: Do Nothing Scenario with 800-space Convention Hotel Garage

		(FIGURES STATED IN \$000'S)					
		2009	2010	2011	2012	2013	2014
<b>OPERATING PROJECTIONS - READING PARKING AUTHORITY</b>							
<b>Year</b>							
<b>REVENUES</b>							
Parking Fees		\$4,908	\$5,169	\$5,380	\$5,396	\$5,465	\$5,478
Violations & Meters		2,826	2,826	2,826	2,826	2,826	2,826
Management Fees		35	35	35	35	35	35
<b>Operating Revenues</b>		<b>\$7,768</b>	<b>\$8,029</b>	<b>\$8,240</b>	<b>\$8,256</b>	<b>\$8,325</b>	<b>\$8,339</b>
<b>EXPENSES</b>							
Depreciation		(\$1,124)	(\$1,158)	(\$1,193)	(\$1,229)	(\$1,265)	(\$1,303)
Insurance		(264)	(271)	(280)	(288)	(297)	(305)
Rent-Meters		(424)	(437)	(450)	(464)	(478)	(492)
Utilities		(293)	(302)	(311)	(320)	(330)	(340)
Wages		(1,178)	(1,214)	(1,250)	(1,288)	(1,326)	(1,366)
Other Expenses		(633)	(652)	(672)	(692)	(713)	(734)
Repair & Replacement Fund		(876)	(876)	(876)	(876)	(876)	(876)
Op. Expenses for 800-space facility		0	(268)	(414)	(427)	(439)	(453)
Repair & Replacement for 800-space facility		0	(40)	(60)	(60)	(60)	(60)
<b>Operating &amp; Administrative Expenses</b>		<b>(\$4,793)</b>	<b>(\$5,219)</b>	<b>(\$5,506)</b>	<b>(\$5,643)</b>	<b>(\$5,784)</b>	<b>(\$5,930)</b>
<b>NET OPERATING INCOME</b>		<b>\$2,975</b>	<b>\$2,811</b>	<b>\$2,735</b>	<b>\$2,614</b>	<b>\$2,541</b>	<b>\$2,409</b>
<b>Debt Service and Capital Leases</b>							
Debt Service and Capital Leases		(\$3,385)	(\$3,392)	(\$3,394)	(\$3,403)	(\$3,411)	(\$3,387)
Debt Service from 800-space facility		\$0	(\$519)	(\$521)	(\$519)	(\$521)	(\$518)
<b>NET INCOME</b>		<b>(\$410)</b>	<b>(\$1,100)</b>	<b>(\$1,181)</b>	<b>(\$1,308)</b>	<b>(\$1,390)</b>	<b>(\$1,496)</b>

Source: Walker Parking Consultants, 9/14/2008  
Note: Depreciation, a non-cash item, is included.

OCTOBER 17, 2008

PROJECT # 14-3563.00

**PROPOSED CONVENTION HOTEL GARAGE**

The RPA has committed to financially support the construction of an 800-space parking facility at the location of the existing Penn Court Lot. The parking garage will support a new 200-room hotel that will reportedly contain convention facilities. The proposed garage will displace the 429-space Penn Court Lot. An additional 300 spaces of the garage will be reserved for hotel use and will not generate revenue for the RPA.

The RPA has committed to the following financial contribution:

**Table 36: 800-space Convention Hotel Garage Project Costs**

**Sources**

Note	\$9,770,000.00
Accrued Interest	0.00
Interest During Construction	0.00
Total	\$9,770,000.00

**Uses**

Parking Facilities	\$9,000,000.00
Capitalized Interest	696,112.50
Debt Service Reserve Fund	0.00
Costs of Issuance	70,000.00
Rounding	3,887.50
Total	\$9,770,000.00

*Source: Concord Public Finance*

Based on the project financing assumptions, the RPA would be responsible for an average annual debt service of \$537,593 over the first ten years. Financing information was provided by Concord Public Finance.

Operationally, the impact of the proposed parking garage will be insignificant to the RPA. Due to the large displacement of existing RPA spaces and the commitment of 300 non-revenue generating spaces to the hotel, the net gain of spaces for the system is 171 spaces. The projected garage NOI will not be sufficient to cover debt service costs.

### **PARKING REVENUES**

Parking revenues were projected by considering current operations of the 429-space Penn Court lot, which will be displaced by the new parking garage. Additionally, we assumed that 40 per cent of the additional 171 spaces would be filled by monthly contracts at the recommended Tier 1 parking rates. (See page 100 for parking rate recommendations.)

Parking revenues are projected at \$472,000± for the first full year of operation.

### **OPERATING EXPENSES**

It is Walker Parking Consultants' opinion that 800± structured parking spaces located at the Hotel Convention Garage, could cost approximately \$500± per space annually to operate in 2008 dollars. This includes payroll and benefits, security, management fees, supplies, accounting/banking, liability insurance/claims, utilities, snow removal, routine and structural maintenance, and miscellaneous expenses. The basis of this estimate is the experience of Walker Parking Consultants, including its database of parking facilities, plus the experience of the RPA.

Parking structure operating expenses vary widely from one facility to another. Data recently compiled by Walker Parking Consultants for 156 parking structures shows a median annual operating expense of \$584 per space, excluding debt service and any taxes. Structures that are large, located in warm climates, and/or reliant upon automated cashiers may have below average costs. Comparatively, structures that are small, located in the "snow belt", and/or reliant upon staff to collect revenues can expect to spend a greater amount per space, especially if inadequate dollars have historically been spent on structural maintenance. In addition, utility rates can vary greatly throughout the United States and can materially impact properties that operate 24 hours, seven days a week and require mechanical ventilation systems.

### **LABOR COSTS**

The labor cost category includes payroll and benefits, security, and management fees. Security and management fees are categorized as labor expenses because these costs are typically directly driven by the hourly wages paid to those providing the service. The increase of automated revenue collection systems has reduced cashiering costs for many owners, however, security costs sometimes increase as facility

OCTOBER 17, 2008

PROJECT # 14-3563.00

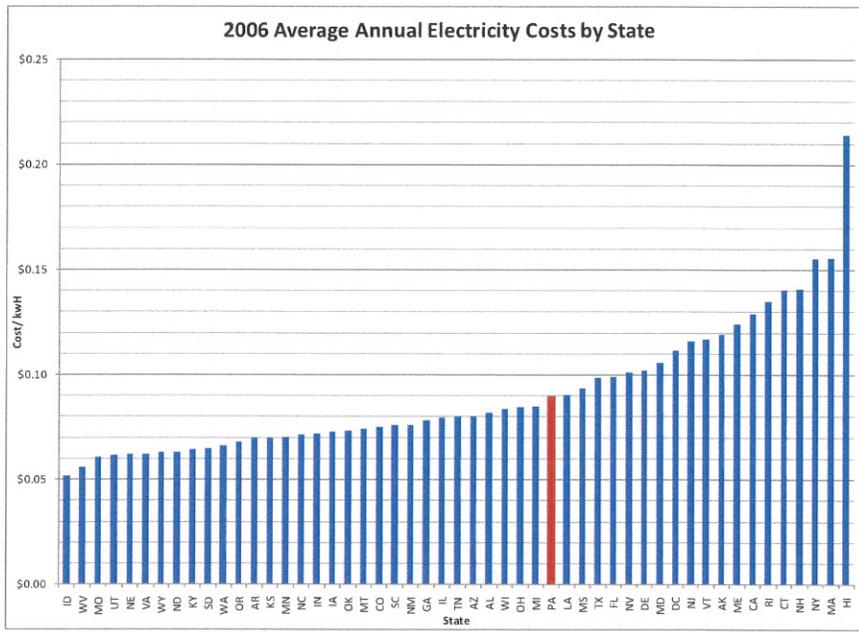
owners and municipalities provide a presence in the facility to discourage crime and improve the public's perception of the otherwise un-staffed facility. Costs associated with the management of the facility can be attributed to the salaries and benefits of the management operating the facility and may or may not be paid to a parking management company.

## **UTILITIES**

Utility costs are directly impacted by a number of factors, including but not limited to the climate, type of facility (below grade vs. above grade with open sides), age and type of lighting system, number of elevators and escalators, communication systems required for the revenue collection system (high speed internet lines), and type and amount of heating, ventilation, and air conditioning equipment. Specific charges related to special high-speed internet access lines and web-based parking management systems are becoming more common.

As mentioned, the cost of electricity varies by location. Sometimes this cost variance is significant. To show just how much the cost can vary, the U.S. Department of Energy was consulted. As seen in the following figure, the average retail cost per kilowatt hour can vary significantly by state. Based on the average 2006 costs, the state of Idaho exhibited the lowest cost for electrical power at 5.16 cents per kilowatt. By comparison, Hawaii had the highest rate at 21.42 cents per kilowatt hour. Pennsylvania's costs were just slightly above the average at 8.93 cents per kilowatt hour.

**Table 37: 2006 Average Annual Electric Cost by State**



Source: U.S. Department of Energy; [www.eia.doe.gov/overview\\_hd.html](http://www.eia.doe.gov/overview_hd.html). Data released October 26, 2007.

**INSURANCE**

The insurance category includes premiums for general liability and garage keeper’s liability insurance plus auto damage claims paid. Auto damage claims are typically paid as an operating cost because they often fall within the deductible limit. Not surprisingly, facilities with the highest per space auto damage claims are high volume valet operations. Insurance rates are usually based not only on the history of losses within a geographic area, but also on the capacity of the structure and the gross operating revenues.

**SUPPLIES**

Uniforms, tickets, register tape, receipt paper, office supplies, and other routinely-used materials are generally considered supplies in the operation of a parking structure. Also included in this category are light cleaning supplies such as brooms, rags, mops, and pails.

## **MAINTENANCE**

Three types of maintenance are considered: routine, structural, and equipment. Routine or daily maintenance includes sweeping and washing surfaces, light painting, replacing light bulbs, cleaning offices and public areas, repainting line stripes, and maintaining landscaping and plants. Owners who value cleanliness and demand it in their parking structure will undoubtedly experience higher daily maintenance costs.

Structural maintenance is often underfunded. Walker Parking Consultants' database revealed a wide range of expenditures, from a little more than \$1 to over \$100 per space annually. The larger figure was likely spent by an owner having to "catch-up" on maintenance. The local climate greatly impacts the deterioration of a parking structure as does the age of the facility. Structural maintenance costs in the "snow belt" are typically at least twice those associated with warmer climates. Walker Parking Consultants recommends setting aside a minimum of \$30 to \$75 per space annually for structural maintenance. The higher end of this range is appropriate for older facilities located in cold weather climates.

Equipment maintenance also varies due to the wide variety of equipment found in parking structures, including parking access and revenue control systems and people moving equipment such as elevators, escalators, or even moving walkways. Snow removal may be considered a maintenance cost.

## **GENERAL EXPENSES**

Most profit and loss statements include a "miscellaneous" or "general expense" category to catch those expenses that do not fit within a specific budget category. For this analysis, the majority of the general expense is made up of security costs.

Summarized in the following table are the projected operating expenses for the prospective Convention Hotel Garage in year one.

**Table 38: Estimated Operating Expenses**

EXPENSES	Per Space	
Labor - Taxes & Benefits	29%	\$203
Contracted Services	12%	\$84
Utilities	17%	\$46
Repair & Maintenance	27%	\$50
Insurance	4%	\$28
Supplies	3%	\$21
General	8%	\$56
<b>Estimated Total Operating Expense</b>	<b>100%</b>	<b>\$488.00</b>

Source: Walker Parking Consultants

**STABILIZED YEAR**

The stabilized year is intended to reflect the average anticipated operating results of the parking facility over its economic life, given any or all of the applicable stages of build-up, plateau, and decline in the life cycle of the property. Thus, income and expense estimates from the stabilized year forward exclude from consideration any abnormal relationship between supply and demand, as well as any nonrecurring conditions that may result in unusual revenues or expenses. We assume the stabilized year is projection year three.

**UNDERLYING INFLATION ASSUMPTION**

An integral part of this analysis is the assumption as to the future expectancy of general inflation, and the resulting impact on parking revenues and expenses. Of the various indices, we are of the opinion that the most relevant indicators of the basic inflation rate for the purpose of this report are the revenue and expense growth rates as reported by Walker Parking Consultants' 2007-08 Database, and inflation estimates made by economists. Based on the results of our research and experience in the parking industry, we assume 3% inflation per year for operating expenses beginning in projection year one.

**NET OPERATING INCOME**

Net Operating Income (NOI) is projected at about \$58,000 for the first full year of operation. Once debt service is subtracted, the facility is projected to be operating at a \$500,000± annual deficit.

**DOWNTOWN PARKING STUDY**  
READING, PENNSYLVANIA



OCTOBER 17, 2008

PROJECT # 14-3563.00

Table 39: Proforma Statement of Operations - Proposed 800-space Convention Hotel Garage

**OPERATING PROJECTIONS - READING PARKING AUTHORITY** (FIGURES STATED IN \$000'S)

Year	2010 *	2011	2012	2013	2014
<b>REVENUES</b>					
Daily	\$3	\$5	\$6	\$6	\$6
Monthly	\$258	\$467	\$483	\$551	\$565
<b>Total Revenues</b>	<b>\$261</b>	<b>\$472</b>	<b>\$489</b>	<b>\$557</b>	<b>\$571</b>
<b>EXPENSES</b>					
Labor - Taxes & Benefits	(\$112)	(\$172)	(\$178)	(\$183)	(\$188)
Contracted Services	(46)	(71)	(73)	(76)	(78)
Utilities	(25)	(39)	(40)	(41)	(43)
Repair & Maintenance	(28)	(42)	(44)	(45)	(46)
Insurance	(15)	(24)	(25)	(25)	(26)
Supplies	(12)	(18)	(18)	(19)	(19)
General	(31)	(48)	(49)	(50)	(52)
<b>Total Expenses</b>	<b>(\$268)</b>	<b>(\$414)</b>	<b>(\$427)</b>	<b>(\$439)</b>	<b>(\$453)</b>
<b>NET OPERATING INCOME</b>	<b>(\$7)</b>	<b>\$58</b>	<b>\$62</b>	<b>\$118</b>	<b>\$118</b>
Repair & Replacement Fund	(\$40)	(\$60)	(\$60)	(\$60)	(\$60)
Debt Service	(\$519)	(\$521)	(\$519)	(\$521)	(\$518)
<b>NET INCOME</b>	<b>(\$566)</b>	<b>(\$523)</b>	<b>(\$517)</b>	<b>(\$463)</b>	<b>(\$459)</b>
<b>Debt Service Coverage Ratio</b>	<b>(0.01)</b>	<b>0.11</b>	<b>0.12</b>	<b>0.23</b>	<b>0.23</b>

\* Assumes 800-space garage opens May 1, 2010.

Source: Walker Parking Consultants, 9/14/2008

**PARKING RATE ANALYSIS**

**CURRENT RATES**

On- and off-street parking rates must be coordinated and not set independent of one another. Specifically, on-street parking should cost more than off-street parking. We recommend the following changes to parking rates:

- Increase on-street rates.
- Decrease off-street transient rates so that these fall below on-street rates.
- Increase monthly rates.
- Expand concept of variable pricing to include transient rates.

Fines are generally reasonable and do not compare unfavorably with other cities. We suggest increasing the fine for illegal parking in an accessible space from \$75 to \$250. Also, we recommend increasing the fine for any overtime parking from \$12 to \$25. This recommended fine increase for overtime parking is higher than neighboring cities comparable in size to Reading. However, we believe that \$12 is insufficient to promote compliance with the law because it is only slightly higher than the existing daily maximum rates of \$8 and \$10. Other larger cities such as New York, Philadelphia, and Baltimore charge \$35<sup>16</sup>, \$26, and \$23, respectively.

**BENCHMARKING SURVEY RATES**

Walker surveyed current parking rates at six peer cities. Overall, Reading's fees are in line with the peer cities chosen for this assignment.

**Table 40: Benchmarking Parking Rates**

Location	On-Street		Off-Street	
	# of Spaces	Fee	# of Spaces	Fee
Reading, PA	901	\$0.75	5,587	\$2.00
Allentown, PA	1,575	\$1.00	6,495	\$1.00
Bethlehem, PA	222	\$0.50	3,065	\$1.00
Lancaster, PA	950	\$1.00	3,153	\$2.00
Scranton, PA	266	\$0.50	2,596	\$2.00
York, PA	n/a	\$1.00	2,263	\$2.75
Greenville, SC	0	\$0.00	6,770	\$0.75

<sup>16</sup> Below 96<sup>th</sup> Street in Manhattan the fine for parking at an expired meter is \$65. In all other areas the fine is \$35.

**RECOMMENDATIONS**

On- and off-street parking rates must be coordinated and not set independent of one another. Specifically, on-street parking should cost more than off-street parking. We recommend the following changes to parking rates:

- Increase on-street rates.
- Decrease off-street transient rates so that these fall below on-street rates.
- Increase monthly rates.
- Expand concept of variable pricing to include transient rates.

Fines are generally reasonable and do not compare unfavorably with other cities. Again, we recommend increasing the fine for illegal parking in an accessible space from \$75 to \$250 and the fine for any overtime parking from \$12 to \$25.

Specifically, Walker recommends the implementation of the following rate adjustments:

1. Increase on-street meter rates to \$2.00 per hour.
2. Increase off-street daily parking rates to \$2.00 for the 1<sup>st</sup> hour and \$1.50 each additional hour.
3. Further develop a tiered system for monthly permit rates with higher rates in zones with higher parking occupancy
4. Upon contract expirations, renew permits at market rates.

**Table 41: Recommended Rate Strategy**

Pricing Tier	Zones	On-Street	Daily Off-Street			Regular	Reserved
		Hourly	First Hour	Add'l Hour	Daily Max	Monthly	Monthly
Tier 1	4	\$2.00	\$2.00	\$1.50	\$10.00	\$92.00	\$184.00
Tier 2	2,3,5	\$2.00	\$2.00	\$1.50	\$8.00	\$88.00	\$176.00
Tier 3	1	\$2.00	\$2.00	\$1.50	\$8.00	\$69.00	\$138.00

*Recommend an average annual increase of 3% to keep up with inflationary costs. These increases can be delayed to round to a suitable number for fee.*

*Increases for Off-Street parking should occur on average every 3 years  
 Increases for On-Street parking should occur on average every 4 years*

A tiered rate strategy such as this can accomplish two things: 1) force on-street parkers into off-street facilities and 2) increase parking revenues.

OCTOBER 17, 2008

PROJECT # 14-3563.00

The recommended rate increases should be implemented January 1, 2009.

**System Rate Increases plus 800-space Convention Hotel Garage**

Based on the recommended rate strategy, presented in the previous pages, this scenario projects the RPA system performance assuming the following:

- The recommended rate strategy is implemented January 1, 2009;
- Rate changes are implemented at all RPA facilities, according to the tier/zone area in which these facilities are located; and.
- Special contracts are renewed at market rates, upon expiration.

**DOWNTOWN PARKING STUDY**  
READING, PENNSYLVANIA



OCTOBER 17, 2008

PROJECT #14-3563.00

Table 42: Proforma Statement of Operations - System Rate Increases plus 800-space Convention Hotel Garage

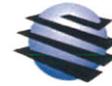
**OPERATING PROJECTIONS - READING PARKING AUTHORITY** (FIGURES STATED IN \$000'S)

Year	2009	2010 *	2011	2012	2013	2014
<b>REVENUES</b>						
Parking Fees	\$6,223	\$6,675	\$7,293	\$7,566	\$7,789	\$8,018
Violations & Meters	3,179	3,274	3,474	3,578	3,685	3,796
Management Fees	35	35	35	35	35	35
<b>Operating Revenues</b>	<b>\$9,436</b>	<b>\$9,984</b>	<b>\$10,801</b>	<b>\$11,178</b>	<b>\$11,508</b>	<b>\$11,849</b>
<b>EXPENSES</b>						
Depreciation	(\$1,124)	(\$1,158)	(\$1,193)	(\$1,229)	(\$1,265)	(\$1,303)
Insurance	(264)	(271)	(280)	(288)	(297)	(305)
Rent-Meters	(424)	(437)	(450)	(464)	(478)	(492)
Utilities	(293)	(302)	(311)	(320)	(330)	(340)
Wages	(1,178)	(1,214)	(1,250)	(1,288)	(1,326)	(1,366)
Other Expenses	(633)	(652)	(672)	(692)	(713)	(734)
Repair & Replacement Fund (system)	(876)	(876)	(876)	(876)	(876)	(876)
Op. Expenses for 800-space facility	0	(268)	(414)	(427)	(439)	(453)
Repair & Replacement for 800-space facility	0	(40)	(60)	(60)	(60)	(60)
<b>Operating &amp; Administrative Expenses</b>	<b>(\$4,793)</b>	<b>(\$5,219)</b>	<b>(\$5,506)</b>	<b>(\$5,643)</b>	<b>(\$5,784)</b>	<b>(\$5,930)</b>
<b>NET OPERATING INCOME</b>	<b>\$4,643</b>	<b>\$4,765</b>	<b>\$5,296</b>	<b>\$5,535</b>	<b>\$5,725</b>	<b>\$5,919</b>
<b>Debt Service and Capital Leases</b>	<b>(\$3,385)</b>	<b>(\$3,392)</b>	<b>(\$3,394)</b>	<b>(\$3,403)</b>	<b>(\$3,411)</b>	<b>(\$3,387)</b>
<b>Debt Service from 800-space facility</b>	<b>\$0</b>	<b>(\$519)</b>	<b>(\$521)</b>	<b>(\$519)</b>	<b>(\$521)</b>	<b>(\$518)</b>
<b>NET INCOME</b>	<b>\$1,259</b>	<b>\$854</b>	<b>\$1,380</b>	<b>\$1,614</b>	<b>\$1,793</b>	<b>\$2,014</b>

\* Assumes 800-space garage opens May 1, 2010.

Source: Walker Parking Consultants, 9/14/2008

Note: Depreciation, a non-cash item, is included.



The following section defines some financing alternatives.

## FINANCING METHODS

### CONVENTIONAL DEBT FINANCING

When an established public or private entity needs capital to fund a parking project, a bank or conventional loan may first come to mind. Conventional loans are loans that are not insured or guaranteed by a government agency. This method of obtaining funds for a capital improvement project involves a lending process that is often rigorous, and may result in higher financing costs incurred by the borrower. Banks want to lend to parties that have a clear record of profitable operations, that generate a cash flow sufficient to repay the loan, and that have enough collateral or assets to secure the loan. Conventional financing requirements include a clean credit record and no bankruptcies or foreclosures.

### GENERAL OBLIGATION BONDS

General obligation bonds will obtain the lowest possible interest rate or cost of borrowing for any given municipality. Because the full faith and credit of the municipality is pledged to such bonds, the rate of interest will reflect the best that the community has to offer. The primary way for a municipality to improve on its own full faith and credit pledge to a bond issue is to purchase municipal bond insurance.

The following definition of general obligation bonds is offered by [www.muni-bonds.com](http://www.muni-bonds.com): "(G.O.) A bond secured by a pledge of the issuer's taxing powers (limited or unlimited). More commonly the general obligation bonds of local governments are paid from ad valorem property taxes and other general revenues. Considered the most secure of all municipal debt. Limited in California by Proposition 13 to debt authorized by a vote of two thirds of voters in the case of local governments or a simple majority for state issuance."<sup>17</sup>

Care must be taken when issuing general obligation bonds to finance parking facilities. The public purpose provisions of the tax law must be observed to preserve the tax-exemption of the bond issue. Moreover, the issuance of general obligation bonds results in at least one significant implication. Most states have laws that restrict the amount of general obligation debt that can be issued by municipalities. General obligation bonds count towards the outstanding statutory debt of the municipality. Therefore, prior to issuing general obligation

<sup>17</sup> <http://www.muni-bonds.com/glossary.html>



OCTOBER 17, 2008

PROJECT # 14-3563.00

bonds for a parking project, the municipality must determine whether the available bonding capacity is sufficient to fund the parking project and also to support any outstanding bonding requirements which the community may be facing. Other competing priorities may dictate that the municipality's management must seek parking project funding other than general obligation bonds.

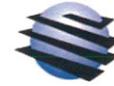
## REVENUE BONDS

When revenue bonds are issued to finance a parking project, the bond issuer pledges to the bond holders the revenue generated by the parking project. Revenue bonds are payable only from specifically identified sources of revenue, including pledged revenues derived from the operation of the financed parking facility, grants, and excise or other taxes. Parking revenue bonds secured solely by the revenues from a single, stand-alone, municipality-owned parking facility are acceptable at a reasonable tax-exempt rate only when irrefutable evidence is presented to indicate the existence of a stable demand generator that is anticipated to produce a suitable debt service coverage from net revenues. Municipalities and other public organizations often benefit from issuing parking revenue bonds since the full faith and credit of the issuer is not pledged. However, revenue bonds traditionally carry a higher interest rate than general obligation bonds. Revenue bonds also differ from general obligation bonds in that general obligation bonds are backed by a city's ability to levy taxes. In comparison, user fees back revenue bonds. Special authorities are frequently created for the purpose of issuing parking revenue bonds.

## ALTERNATIVE FINANCING STRATEGIES

The purpose of this section is to provide an overview of the most commonly used strategies for financing parking facilities, most of which fall short of generating operating revenues that are sufficient to cover operating expenses and debt service. The following strategies are addressed:

- Federal Grants
- Tax-Increment Financing
- Business Improvement Districts
- Parking Tax Districts
- Development and Lease Agreements
- Creation of an Auxiliary Enterprise Fund
- Creation of a Parking Authority



OCTOBER 17, 2008

PROJECT # 14-3563.00

## FEDERAL GRANTS

At least two potential funding sources are available at the federal level. Location, intended use of the facility, and availability of grant money are the variables that typically govern whether a project receives federal grant money. The U.S. Department of Transportation offers two types of grants that may be applicable to a parking project: Federal Transit Capital Investment Grants and Federal Transit Formula Grants.

Administered under the Federal Transit Administration (Department of Transportation) under authorization of the 49 USC 5309, Federal Transit Capital Investment Grants exist "to assist in financing the acquisition, construction, reconstruction and improvement of facilities, rolling stock and equipment for use, by operation, lease, or otherwise, in mass public transportation service and in coordinating service with highways and other transportation in such areas."

This capital grant can be applied to virtually any infrastructure improvement pertaining to the establishment or improvement of mass transit systems. Eligible projects include: fixed guide-way systems, rolling stock for transit systems, establishing or improving mass transit facilities, and any other development or capital cost associated with establishing or improving mass transit service. Consideration may also be given to projects which enhance urban economic development; establish new or enhanced coordination between transit and other transportation; enhance the effectiveness of a transit project; or other non-vehicular capital improvements that the Secretary of Transportation may decide would result in increased transit usage in the corridor.

Qualified applicants include: public agencies, states, municipalities, public corporations, boards and commissions, and private agencies through contractual agreements with a public agency grantee. Qualifying parties must submit an application in which the following documentation is included:

- Proof of the project's inclusion in the local transportation improvement program (TIP);
- Proof of the project's inclusion in the state transportation improvement program (STIP);
- Approval of the project by the Federal Transit Administration (FTA) and Federal Highway Administration (FHWA);
- A statement of labor and relocation pertaining to the project;
- An environmental impact statement on the effect of the project;
- A legal opinion on the validity of the project;

## DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

- Proof of the project's inclusion in the coordinated regional plan;
- A valid maintenance certification; and
- An affidavit of certifications and assurances as compiled in the FTA's Annual List of Certifications and Assurances.

The basic grant rate may be up to 80 percent of the total project cost, with the applicant being responsible for the remaining 20 percent. In FY 2000, the distribution of capital grants ranged from \$9,450 to \$1,636,000,000, with an average value of approximately \$7,000,000. Previously awarded projects include:

- 13 CNG buses in St. Louis;
- Gateway Intermodal Center in Los Angeles;
- Constructed Portsmouth, Virginia ferry docking facility (Norfolk-Portsmouth);
- LRT security system and power substation in Sacramento; and
- Dallas North Central Light Rail.

FTA Formula Grants, also administered under the Federal Transit Administration (Department of Transportation) under authorization of the 49 USC 5307, exist "to assist in financing the acquisition, construction, cost-effective leasing, maintenance, planning, and improvement of facilities and equipment for use by operation, lease, contract, or otherwise in mass transportation service, and for urbanized areas with populations under 200,000, to assist with the payment of operating expenses to improve or to continue such service by operation, lease, contract or otherwise."

This formula grant can be applied to virtually any infrastructure improvement pertaining to the establishment, operation or improvement of mass transit systems. The Secretary of Transportation may make grants under this section for capital projects to finance the planning, acquisition, construction, lease, improvement, and maintenance of equipment and facilities for use in transit subject to regulations. One percent of the funds apportioned to urbanized areas with a population of at least 200,000 shall be made available for transit enhancements. For urbanized areas with populations under 200,000, the Secretary may also make grants under this section to finance transit-operating costs. Recipients of these grants are required to make information available to the public and to publish a program of projects to afford affected citizens opportunities through public hearings to submit comments on the proposed program and the performance of the recipient.

## DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

Qualified applicants include publicly owned operating companies of mass transportation services. Funds are made available to urbanized areas (as defined by the Bureau of the Census) through designated recipients which must be public entities and legally capable of receiving and dispensing Federal funds. The state governor, responsible local officials, and publicly owned operators of mass transportation services must jointly designate the recipient(s) for urbanized areas of 200,000 or more in population. Recipients must submit a program of projects to the FTA; submit a program application to the FTA; enter into formal agreements with the FTA; and certify that public notification has been conducted.

Qualifying parties must submit an application in which the following documentation is included:

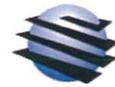
- Proof of the project's inclusion in the local transportation improvement program (TIP);
- Proof of the project's inclusion in the state transportation improvement program (STIP);
- Approval of the project by the FTA and FHWA;
- A statement of labor and relocation pertaining to the project;
- An environmental impact statement on the effect of the project;
- A legal opinion on the validity of the project;
- Proof of the project's inclusion in the coordinated regional plan;
- A valid maintenance certification; and
- An affidavit of certifications and assurances as compiled in the FTA's Annual List of Certifications and Assurances.

Funding is apportioned on the basis of legislative formulas. For urbanized areas with population of 200,000 and greater, the formula is based on a combination of bus revenue vehicle miles, bus passenger miles, fixed guide-way revenue miles, and fixed guide-way route miles as well as population and population density. The basic grant rate may be up to 80 percent of the total project cost, with the remaining 20 percent being the responsibility of the applicant. In FY 2000, the FTA issued \$3.2 billion in formula grants. Previously awarded projects include:

- Construction of the Kansas City Union Station Intermodal Facility;
- Renovation and expansion of bus maintenance facilities for the Flint (MI) Mass Transportation Authority;

## DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

- Replacement of 48 buses and purchase of a ferry vessel on behalf of the Golden Gate Bridge, Highway, and Transportation District;
- Creation of park-and-ride lots for Southwest Ohio Regional Transit Authority; and
- Construction of rail lines, terminals and facilities for the Southeastern Pennsylvania Transportation Authority.

The FTA grants described above are apportioned to each state and specific departments and agencies within each state. These funds are applied to specific programs that the departments and agencies oversee. The role of these departments and agencies is to determine the ability of the proposed project to meet the requirements of a specific program and the portion of the project that will be funded. If a specific program will not supply the entire 80 percent of funds for the project, other programs may be applied for to satisfy the 80 percent. Keeping in mind that each will be treated as a separate project and will require 20 percent local funding. Applications for the several types of programs must be completed by the local government and submitted to the proper governmental departments and agencies. These departments and agencies generally have a specific time window for the submission of applications, or a "Call for Proposals."

Often there are timing issues that a municipality will wish to circumvent. In general, the application and approval process takes over six months, with projects being approved for a budget that may be several years away. This may cause problems if studies and conceptual drawings are done prior to application and approval. Current demand and projected demand are often time specific and determine when the funds are needed. Physical changes to abutting property or roadways over time may affect the accuracy and usefulness of conceptual drawings. With this particular issue in mind, a municipality may issue bonds specifically based on the approval of an application for federal funds. These bonds are known as Grant Anticipation Notes ("GAN"). These bonds are backed by the approved funds from the Federal Government. The Federal Register recently recorded the following discussion in regards to GANs:

Public transportation grantees are reminded that with interest rates at currently low levels it may be cost-effective to leverage their projected grant receipts, and thereby accelerate the acquisition of needed rolling stock or completion of essential infrastructure. FTA encourages grant recipients to examine all leveraging options at their disposal, including the use of grant anticipation notes (GAN) secured with Formula Capital, Fixed Guideway Modernization, and New Starts funds. To

## DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

date, over \$1.7 billion in grant anticipation notes have been issued, allowing major projects to be completed early and at lower cost. FTA will provide information and other assistance to grantees that wish to examine financing options during their project development process. For additional information, contact Paul L. Marx, Office of Policy Development, at (202) 366-1675.

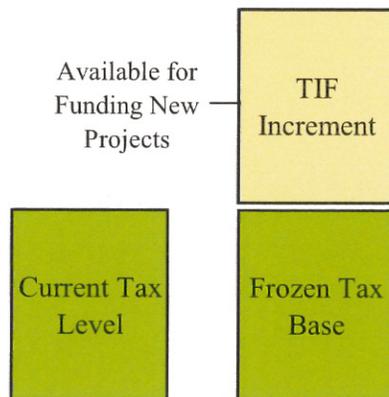
### *TAX-INCREMENT FINANCING*

Another common financing mechanism employed by municipalities is the implementation of a tax increment finance ("TIF") district. Tax increment financing is a way to use tax revenue growth produced by an increase in the tax base of a specified area to repay the costs of investing in the area. While many cities rely on general tax revenue to fund improvements, tax increment financing, or TIF, is an increasingly viable solution to funding the development of needed infrastructure, including structured parking. Tax increment financing legislation enables a local government to finance redevelopment projects through an anticipated increase in the area's property tax revenues. TIF districts do not generate tax revenues by increasing tax rates. Rather, as shown in Figure 1, the TIF district generates revenues by permitting the municipality to temporarily capture the tax revenues generated by the enhanced valuation of properties resulting from the various redevelopment projects. In a TIF-funded project, the local government permits the developer to use a portion of these new taxes to support financing for the proposed parking project. Since a portion of the financing is repaid solely from the dedicated taxes, TIF effectively functions like a grant from the standpoint of the developer.

The premise of TIF is that real estate development generates new real estate and sales taxes above and beyond the taxes generated by land in its undeveloped state. The TIF system relies on the appreciation in value of the land and buildings in a TIF district. If a development is profitable, then the costs will be paid for in the growth of property tax revenue. If the property fails to increase in value, the improvement costs fall back on the general taxpayer. This risk makes some governments wary of employing TIF's. Such concern, while important, must be weighed against the alternative.



Figure 10: Tax Increment Financing (TIF)



Source: Walker Parking Consultants

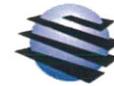
## BUSINESS IMPROVEMENT DISTRICTS

Some municipalities and county governments use business improvement districts ("BIDs") and parking tax districts as a means to generate income to fund parking facility capital improvements and operating expenses. Both business improvement districts and parking tax districts can be used to finance the acquisition of land; the construction, operation, and maintenance of surface parking lots and parking structures; as well as the costs of engineers, attorneys and other professionals needed to complete the project.

BIDs number over 1,200 in the U.S. and are much more common than parking tax districts. BIDs, which are most often formed at the request of their member businesses, typically address a wide variety of issues not all related to parking. Common issues addressed include marketing, transit, beautification, signage, lighting, parking, street and public space maintenance, unarmed security patrols, "customer service representatives" or "ambassadors" to provide information and assistance to tourists and shoppers, etc. The collection of assessments tend to be applied uniformly on a square foot, gross receipts, or assessed value basis because benefits are universally recognized by all property owners. Typically, no exemptions or tax credits are provided to property owners who provide all or a portion of their required parking.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

The Bayside District, located in Santa Monica, California, is an example of a BID. This BID was established in 1986 and has allowed the BID to secure the bonded indebtedness associated with various improvements in 1989. Improvements included a transformation of the old Santa Monica Mall into the Third Street Promenade and surrounding Bayside District. Specifically, this provided for additional parking and certain alley, signage, and circulation improvements.

The Santa Monica BID has three zones, each with its own tax rate: Zone 1 - \$0.8096 per building square foot; Zone 2 - \$0.3346 per building square foot; and Zone 3 - \$0.2342 per building square foot.<sup>18</sup> Tax bills appear on property owner's tax bills and are collected through the County Assessor's Office. The Treasurer of the City of Santa Monica administers the BID fund.

At the same time this BID was created, an ordinance was passed requiring a parking developer fee; this fee creates a fund for additional parking improvements as new square footage is added (if the developer does not provide parking to meet the demand of the new development). The formula for this parking developer fee is equal to \$1.50 per square foot per year for each new square foot of building space added since 1986 for which parking is not provided.

## **PARKING TAX DISTRICTS**

A parking tax district typically addresses a narrow selection of issues directly related to parking. In cases where the municipality is the sole provider of parking, the collection of parking taxes tends to be applied in a uniform manner on an assessed value basis or as a fee per space based on zoning parking standards or requirements, and typically with a partial exemption for parking spaces provided above a threshold percentage. Typically, no commercial property is 100 percent exempt unless its owner provides 100 percent of the parking requirements mandated through the zoning ordinance within the district. Single-family residential property is usually exempt, but multi-family apartments usually are not exempt.

There are several precedents for a parking tax district in the United States. Existing parking tax districts are located in the states of California, Maryland, Nebraska, and Oregon, with the majority of parking tax districts concentrated in California. The State of California has passed enabling legislation, including the Parking District Law of

<sup>18</sup> Rates shown are for the 1999 Property Tax Year



OCTOBER 17, 2008

PROJECT # 14-3563.00

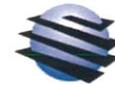
1951, Mello-Roos Community Facilities Act of 1982, and the Parking and Business Improvement Area Law of 1989. The California office of the Controller reports 26 Special Parking Districts that are registered by the state. Of these districts, a Board of Supervisors governs three and a City Council governs 19. Four of these districts are governed by other means.

Following is a summary highlighting several parking tax districts in the U.S.:

- **Montgomery County, Maryland** - Parking District Services of Montgomery County manages parking districts in Bethesda, Montgomery Hills, Silver Spring, and Wheaton. Some of the tasks performed by Parking District Services are the management of off- and on-street parking facilities within its districts. Parking District Services is responsible for revenue collection and control, maintenance, safety and security, the funding of parking facility capital improvements, and ongoing operating and maintenance expenses. To generate the funding necessary for ongoing parking operations, each parking district collects taxes based on the assessed value of land and improvements.

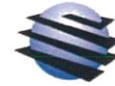
A similar tax for unimproved non-residential properties is taxed at 50 percent of the improved rate. Several exemptions or percentage reductions from the tax are provided by the ordinance. For example, public off-street parking lots and facilities are exempt from the tax, provided that this parking is made available for general public use, or for the use of the customers of the establishment for which the exemption is claimed. Any property owner or lessee who provides the entire zoning requirements for parking is exempt. Property owners providing a portion of their parking are exempt from a portion of the tax bill in accordance with a formula that varies depending on the land use. For example, if a "retail establishment" provides between 60% and 99.9% of the general retail zoning parking requirement, the credit is 60%. At less than 60%, the credit is zero. At 100% or more, the property is exempt. (Please refer to the "Case Studies" section at the end of this chapter for a more comprehensive discussion of this parking tax district.)

- **Tualatin, Oregon** - Our research reveals that the city of Tualatin, OR has a Special Core Area Parking District Tax and Impact Fee. In Year 2003, property owners are required to pay an annual tax of \$120.55 for each required parking space. The required number of parking spaces varies depending on the land use and the parking requirements as specified in the city's zoning



ordinance. A formula is used to determine whether an owner qualifies for a tax credit. This tax credit for providing on-site parking spaces is calculated by defining "A" as the number of spaces provided by an owner, divided by the number of spaces required by the zoning ordinance. If "A" is greater than or equal to 1.0, the credit is 50 percent. If A is less than 1.0, the credit is equal to 50 percent of "A" ("A" x 50%). Thus, everyone pays at least 50 percent of the parking district tax. A developer within the Tualatin parking district may buy down up to 25 percent of the required number of parking spaces by paying an impact fee. The impact fee (payment in lieu) is determined by the number of zoning required spaces not supplied, multiplied by the \$3,500 fee per space. This fee appears to support only surface parking development, as this amount is insufficient to support the cost of structured parking.

- **Norfolk, Nebraska** – This city manages a Vehicle Parking Tax District. The municipality provides most parking. The tax is billed on the assessed value of the property, regardless of any parking on-site. The 2002-03 property tax levy approximately equals the maximum \$0.35 levy allowed by Nebraska statutes based on the 2001 valuation.
- **Covina, California** has a Vehicle Parking District Tax. This tax is assessed only on the difference between the number of spaces provided and the number required by the zoning ordinance. There are no exceptions to this tax for owners who provide parking.
- **Alhambra, California** includes parking within a Business Assessment District Tax. This tax is assessed uniformly on all commercial property based on the gross receipts of the business. Because this tax supports functions other than parking, such as beautification, cleaning, signage, etc., there are no exceptions for parking provided.
- In **San Bernardino, California** developers are allowed to make a payment in lieu, which is determined by the number of spaces required by zoning but not supplied by the replacement cost of a structured parking space, which is reappraised annually. The vehicle parking district tax is assessed as an ad valorem property tax, but a prorated credit is allowed based on the difference between the number of spaces provided and the number required by the zoning ordinance. Spaces paid in lieu are counted as though constructed.



OCTOBER 17, 2008

PROJECT # 14-3563.00

- *Fullerton, California* owns almost all of the off-street parking within the city, and all businesses within the parking district were assessed a parking district tax to retire bonds for the construction of parking. No exemptions were offered as almost no properties supplied their own parking needs. Because the bond debt was retired several years ago, the parking tax district was also retired.
- *Long Beach, California* maintains the Belmont Shore Parking Commission, which exists as an approved city commission and enterprise fund. The commission receives parking revenue from existing facilities and tax revenue from the Parking and Business Improvement District (PBID) for the purpose of parking. This PBID has the power to impose a self-assessment of property owners and businesses, subject to a 50 percent protest vote that can terminate it at any time. The most recent assessment was approximately \$0.06 per SF, but has been reduced to \$0/SF pending the selection of a new set of goals and criteria. Because the PBID pertains to more than parking, the tax rate is applied across the board, with no exemptions for owners who provide their own parking.
- The Vehicle Parking District of *Pomona, California*, provides public parking for the entire downtown district. Businesses are not required to pay for parking credits or apply for parking variances. There is essentially no room for new parking. Parking is currently self-sustaining, as parking revenue from existing lots is sufficient to fund current obligations. As there are no ongoing parking structure development obligations, there is no additional parking district tax.

## **PAYMENT IN LIEU**

In cases where a developer is allowed to pay a fee in lieu of construction of parking spaces, the number of spaces that can be deferred is limited, and the amount of the fee in lieu is based on the actual average cost of development of structured parking spaces within the district. However, spaces paid-in-lieu are counted as though constructed in determining the number of parking spaces provided by a developer.



## DEVELOPMENT AND LEASE AGREEMENTS

Municipal and corporate leaders are increasingly faced with the issue of whether or not they should enter into the parking business by constructing, financing, and operating their own parking facilities. In most cases, the capital required to develop and operate a parking facility is the prevailing barrier to entry. The financial paradox faced by decision-makers is the need to allocate funds for core operation improvements to sustain and grow demand, while at the same time, fund parking expansion projects that are needed to operate. More often than not, funding a parking expansion project is determined to be subordinate to core operation improvements.

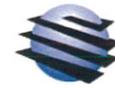
Faced with parking issues, many industry leaders are recognizing the advantages of eliminating parking from their balance sheets and focusing on their core business. This is accomplished through a development leaseback agreement that provides an alternative method of ownership, investment, financing, and risk allocation to organizations that need parking, but face financial limitations. It is a financial tool that can allow a business or agency to expand parking operations, reduce long-term risk, and redirect capital funds from parking to core operations.

When a local agency enters into a development leaseback arrangement (thereby becoming the lessee), it may lease a facility from another public agency, a nonprofit corporation set up for that purpose, a bank or private leasing company or a joint powers authority. This lessor assigns all its rights in the leased parking facility to the lessee or trustee and acts as an intermediary between the local agency and the investors. The trick to leasing is finding someone who is willing to invest in the return from the agency's lease payments. This may be a single investor or, more frequently, a group of investors who have purchased undivided shares of the lease obligation (these shares are called "certificates of participation"). The lessee is given use of the property as though he owned it, without having capital invested in it.

The lease is typically a long-term "net" lease<sup>19</sup>, with the lessee having the option of repurchasing the parking facility at a later time. The tenant, who previously owned the property, normally has the right at any time during the lease to buy back the parking facility, based upon a predetermined value or method of valuation. However, it is most

---

<sup>19</sup> A property lease in which the lessee agrees to pay all expenses which are normally associated with ownership, such as utilities, repairs, insurance and taxes. Also called a closed-end lease.



OCTOBER 17, 2008

PROJECT # 14-3563.00

advantageous to do so at the end of the lease, when the purchase price could be a nominal amount. Terms usually are for 15 to 20 years with options to include up to four five-year renewal periods.

Development leaseback agreements offer several advantages over other financing methods. First, an agency can obtain a parking facility without a large initial investment. Second, a lease can be used to spread the cost of a parking facility over a long period of time. Third, lease agreements do not add to agency debt. Fourth, in many cases voter approval is not a requirement as it would be with special taxes and some types of bonds. Fifth, leaseback deals can also provide the lessee with additional tax deductions, if applicable. The lessor benefits in that they will receive stable payments for a specified period of time.

Using lease financing is not without its drawbacks. The agreements necessary to finance public and private parking facilities are complicated, and involve numerous players such as bond counsel, underwriter, and trustee. Leasing, because of the uncertainties of the market and annual allocation of payments, may require higher debt payment than bonds to attract investors. Additionally, because leases are designed to be tax-exempt investments, their popularity and marketability is susceptible to changes in federal or state tax law. Also, it may be difficult to find creditworthy investors for some leases. Unlike special assessments or taxes, a lease by itself does not generate funds on its own and requires another source of income, such as user fees, to retire any debt.

## *CREATION OF AN AUXILIARY ENTERPRISE FUND*

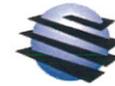
Universities and municipalities often create auxiliary enterprise funds. These resources are then used to fund parking project capital improvements. By definition, an auxiliary enterprise fund is self-sustaining. This means that the auxiliary enterprise fund generates a revenue stream that is sufficient to cover ongoing operating expenses and outstanding debt service obligations.

Auxiliary enterprise funds have their own operating budgets. This operating budget is separate from the municipality's or university's general fund. These operating budgets include a stream of revenues collected from a variety of sources, including the following:

- Monthly Leases
- Parking meter revenues
- Parking violation revenues

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

- Transient revenues

Although revenues generated by a new structured parking facility may not be sufficient to fund both the operating expenses and debt service of that particular improvement, revenues from other facilities and sources are pooled together. This revenue pool is sufficient to generate an income stream that permits the solvency of the auxiliary enterprise.

Budgeted expenses include the operating costs associated with ongoing parking operations. This may include the labor costs associated with maintenance, security, parking enforcement, revenue collection, management, and administration. Other operating costs may include utilities, supplies, and equipment.

The lifespan of a parking structure can often range from 40-50 years or more. However, because the development costs for such a structure are capitalized over a 20-30-year period, there is significant useful life remaining after all debt is retired. This remaining life means that revenues may still be generated by this debt-free facility and that these revenues may be available to offset any new debt service payments that are required to fund new parking projects.

There are many parking system auxiliary enterprise funds in operation throughout the U.S. Following are some of these funds:

- City of Cedar Rapids, Iowa
- City of Lincoln, Nebraska
- City of Detroit, Michigan
- City of Tampa, Florida
- City of Denver, Colorado



OCTOBER 17, 2008

PROJECT # 14-3563.00

Parking authorities offer similar advantages to those gained through the creation of auxiliary enterprise funds. One similarity is that parking authorities should be self-supporting, meaning they generate operating revenues sufficient to cover both operating expenses and the debt service associated with any capital improvements. Parking authorities have many of the same responsibilities as a municipal parking and transportation department. Following are some of the functions and responsibilities of a parking authority:

- To hire and compensate staff and manage parking facilities.
- To set parking rates and collect revenues from authority-owned facilities.
- To establish and manage a budget.
- To acquire property through negotiations and, if necessary, through eminent domain.
- To acquire existing parking facilities.
- To contract with third parties for services and the sale of real property.
- To sue and be sued.
- To fund parking facility capital improvements.
- To design, construct, and renovate parking facilities.
- To demolish and rebuild parking facilities.
- To develop and implement master plans for municipal parking.
- To define and implement parking management strategies aimed at improving traffic flow and parking conditions.
- To issue and retire debt.

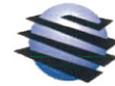
To create a parking authority, first, enabling legislation must be in place legalizing the formation. Many states have enacted enabling legislation to allow for the creation of a parking authority. Some states have legalized the formation of a parking authority in any city, regardless of size. Other states permit the establishment of a parking authority only in specific classes of cities. Following are some states that have parking authorities: Alabama, Alaska, California, Connecticut, Delaware, Florida, Maine, Maryland, Massachusetts, New Jersey, New York, Oklahoma, Pennsylvania, Tennessee, Virginia, Washington, and West Virginia.

Once the parking authority is created, most laws provide for the municipality's mayor to appoint board members. The Board of Directors then governs a parking authority.

## ORGANIZATIONAL STRUCTURE

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

Parking authorities have several characteristics that distinguish them from municipal parking departments including the following:

- Where parking authorities are empowered to issue their own debt, that debt may or may not count toward the debt capacity of the municipality.
- Parking authorities can take action independently and without approval of local government.

Following are some of the most significant advantages and disadvantages of a parking authority:

#### Advantages:

- Provides a structure with a sole focus on parking-related issues.
- Significantly reduces administrative pressures compared to city parking department.
- Not subject to annual budget considerations of city government or politics.
- Can issue own debt.
- Can accomplish unpopular goals by isolating some decisions.

#### Disadvantages:

- Parking system should be self-supporting, as transfers to cover deficits are problematic.
- Creates a new governmental agency with an independent Board of Directors.
- Redundant costs of management and administration.
- May face higher borrowing interest rates and costs than a city issuing general obligation bonds.
- Authority may have some powers that are beyond the immediate control of the citizens.
- May still encumber the full faith and credit of the City in the calculations of some underwriters.

## DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

Parking Authorities are regionally concentrated as follows:

Region	Number
Midwest	20
Southwest	6
West	28
New England	14
Mid-Atlantic	140
South	43
Total	251

The greatest numbers of parking authorities are found in:

State	Number
Pennsylvania	54
New Jersey	43
New York	35
California	23
Virginia	17

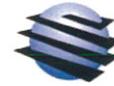
New York, New Jersey and Pennsylvania are the states with the greatest number of parking authorities. Only approximately 24% of these authorities were created since 1980, and approximately 19 parking authorities have been dissolved over the same period.

Most parking authorities were created between 1947 and 1972. Most were created in very congested areas to accomplish politically unpopular tasks such as the condemnation of land for parking, the issuance of bonds outside of the borrowing capacity of local government and, sometimes, patronage. The creation of a parking authority allows local elected officials to distance themselves from these activities, but also creates independent boards that may be difficult to control and may be politically challenging.

The use of parking authorities have declined since that era in part because of changes in municipal bonding underwriting standards and other disadvantages described above, and because similar results can be accomplished through the issuance of tax-exempt project revenue bonds and the use of less complex organizational models such as municipal parking departments, development corporations, special improvement districts, business improvement districts, neighborhood improvement districts, and TIF districts.

# **DOWNTOWN PARKING STUDY**

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

The City of Reading is encouraged to kick the habit of transferring RPA funds to the City of Reading's general fund. This practice may help balance the city's budget in the short-term; however, in the long-term, this will weaken the RPA to the point of collapse. The RPA needs to reinvest any positive cash flow into the maintenance of existing facilities and the development of new facilities and/or programs.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



OCTOBER 17, 2008

PROJECT # 14-3563.00

## RATE AND FINES STRUCTURES

Since the Year 2004, the following are the daily parking rates for RPA Garages:

- Up to 1 Hour \$2.00
- Each Additional Hour \$1.00
- Daily Maximum \$8.00

Those parking patrons exiting a facility after 5:45 p.m. may receive a "Daily Parking Envelope" on their windshield; these individuals are asked to determine the time at which they entered the facility using the time stamped on the ticket that was obtained at the entrance and follow the instructions on the envelope. Payments may be made at the facility exit in the "drop box", or by mailing it to the RPA office.

Event parking for the Sovereign Center and the Performing Arts Center is provided at all of the parking garages and lots owned and operated by the Reading Parking Authority.

Event parking is traditionally \$6.00 at all facilities, except for the Penn Court Lot which is \$9.00. However, parking for "special events" incorporates a graduated fee schedule...the closer the customer parks to the Sovereign Center, the more the parking fee. Therefore, graduated rates are as follows:

- State Lot, BARTA garage, Penn Court Lot - \$10.00
- South Penn garage, Reed and Court garage, 7th and Washington Lot - \$7.00
- 4th and Cherry garage, Poplar and Walnut garage, and 6<sup>th</sup>/ Cherry lot - \$6.00

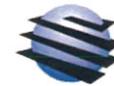
The following permit rates are shown on the RPA's website:

## PARKING POLICIES



# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

**Table 43: RPA Posted Rates**

Permit Rates			
Facility <capacity> height restrictions	Individual Rate Reg.-Reserved	Group Rate Reg.-Reserved	Residential Rate
Penn Court <429>	\$64.00 - \$93.00	\$62.00 - \$90.00	
Chiarelli Plaza <500> 7'1"	\$72.00 - \$105.00	\$70.00 - \$102.00	
Poplar & Walnut <1024> 7'1"	\$77.00 - \$112.50	\$75.00 - \$109.50	
Reed & Court <526> 6'8"	\$80.00 - \$112.50	\$78.00 - \$109.50	
South Penn <1050> 6'10"	\$72.00 - \$105.00	\$70.00 - \$102.00	
4th & Cherry <635> 7'4"	\$72.00 - \$105.00	\$70.00 - \$102.00	
2nd & Washington <433> 7'0"	\$72.00 - \$105.00	\$70.00 - \$102.00	
7th & Washington <140>	\$64.00 - \$93.00	\$62.00 - \$90.00	\$34.00
Wyndham <300> 6'3"	\$80.00	\$80.00	\$65.00
4th & Pine <50>			\$21.00
BARTA<100> 7'0"	\$72.00 - \$105.00	\$70.00 - \$102.00	
BARTA TRANSIT<350> 7'11"	\$64.00 - \$93.00	\$62.00-\$90.00	

Monthly Permits are to be used Monday thru Friday 6:30 AM - 6:30 PM

To qualify for residential rates, vehicle must be registered in 19601 or 19602 zip code and reside within two blocks of the parking facility

**Hourly Rate:** \$2.00 1st hour / \$1.00 each additional hour **\$8.00 maximum daily rate except Reed and Court which has a \$10.00 daily maximum.**

**Park & Shop Stamps:**

Booklet = 20 stamps \$18.00 per booklet 1 stamp per hour  
 1 - 5 books = 100 - 500 stamps \$90.00 per book 7 stamps over 6 hours  
 6 books = 600 stamps \$85.00 per book

Daily Parking Stamps - 6 pack \$30.00 per 6 pack

Source: Reading Parking Authority

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

The RPA has posted fines for a variety of parking-related violations on its website. As shown, the following are the fines and the amount of the fine if not paid within ten days of issuance:

**Table 44: RPA Posted Fines and Penalties**

Ordinance	Description	Initial Fine	Fine After 10 Days
15-402	Official signs posted limited time parking	\$25	\$40
15-403 (A)	Double parked on roadway	\$75	\$85
15-403 (A)	Parked in crosswalk	\$25	\$40
15-403 (A)	Parked on sidewalk	\$50	\$70
15-403 (A)	Parked within intersection	\$25	\$40
15-403 (A)	Parked alongside excavation / construction site	\$25	\$40
15-403 (A)	Parked on bridge or elevated roadway	\$25	\$40
15-403 (A)	Parked on railroad tracks	\$25	\$40
15-403 (A)	Parked between roadways of a divided highway	\$25	\$40
15-403 (A)	Official signs posted no stopping or standing	\$25	\$40
15-403 (A)	Parked within marked safety zone	\$25	\$40
15-403 (B)	No parking yellow curb	\$25	\$40
15-403 (B)	Obstructing driveway issued on complaint	\$50	\$70
15-403 (B)	Within 15 feet of fire hydrant	\$75	\$85
15-403 (B)	Parked in bus stop	\$25	\$40
15-403 (B)	Parked on limited access highway	\$25	\$40
15-403 (B)	Official signs posted no standing	\$25	\$40
15-403 (B)	Parked within 20 feet of a crosswalk at an intersection	\$25	\$40
15-403 (B)	Parked within 20 feet of or 75 ft of a fire station	\$25	\$40
15-403 (B)	Parked within 30 feet of traffic signal	\$25	\$40
15-403 (C)	Parked in alley less than 18 feet wide	\$25	\$40
15-403 (C)	Official signs posted no parking	\$25	\$40
15-403 (C)	Parked within 50 feet of railroad crossing	\$25	\$40

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



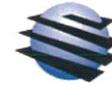
**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

15-404	Parked obstructing garage entrance	\$25	\$40
15-405	Performing greasing or repair work	\$70	\$125
15-407	48 hour parking restriction on truck, trailer or mobile home	\$100	\$200
15-407	Unattached trailer, mobile home, or camper	\$100	\$200
15-408	Vehicle stored on city street / property 72 hours	\$50	\$100
15-409 (1)	Vehicle registration expired or missing	\$50	\$100
15-409 (2)	Inspection sticker expired or missing	\$50	\$100
15-409 (3)	Inoperable vehicle parked on street	\$50	\$100
15-410	Private property issued on complaint	\$50	\$75
15-411	Vehicle in handicapped space no plate or placard	\$75	\$125
15-412	Parked in loading / pickup zone	\$25	\$40
15-415	Non-payment of parking fee notice	\$25	\$40
15-418 (13)	Signs posted resident permit zone over time limit	\$15	\$25
15-419 (1)	Hazardous vehicle health hazard	\$50	\$100
15-419 (1)	Hazardous vehicle traffic hazard	\$50	\$100
15-419 (1)	Hazardous vehicle fire hazard	\$50	\$100
15-421	Parked against the flow of traffic	\$25	\$40
15-504	Parked overtime in limited metered zone	\$12	\$25
15-509	Parked overtime at a metered space	\$12	\$25
15-602	Official signs posted no parking (Public Works)	\$35	\$75
15-908	Official signs posted snow emergency route	\$50	\$100

Source: Reading Parking Authority



## ON-STREET AND OFF-STREET POLICIES

The RPA manages on-street parking within the Reading City Limits. There are reportedly 1,100 on-street meters. On-street rates vary between \$0.50 per hour and \$0.75 per hour depending on the location of the meter in the downtown area.

On-street rates in Reading are less than off-street parking rates. This is a common mistake; one being made by each of the cities included within this study's benchmarking study. We recommend that on- and off-street parking policies and rates be coordinated. Specifically, on-street parking rates should be higher than off-street parking rates. The reason is that most on-street parking – at least those spaces within the core area of the downtown – is intended to be short-term in nature. On-street spaces need to turn over and be routinely available for downtown visitors and short-term users. Off-street spaces are ideal for longer-term vehicle storage and should experience turnover rates that are lower than those of on-street spaces.

As presented earlier within this report, most users are adhering to the posted on-street time limits. This is likely a result of an effective enforcement program carried out by the RPA.

Recommendation: We recommend that on-street rates be increased to \$2.00 per hour. The brunt of this change could be ameliorated by charging lower off-street rates of \$2.00 for the first hour, \$1.50 for additional hours, with a daily maximum of \$8.00 for facilities located in Zones 1, 2, 3 and 5 and \$10.00 for Zone 4. The RPA is encouraged to issue a press release explaining these dual changes for the purposes of educating the general public.

## PARKING ENFORCEMENT POLICIES

Parking enforcement proceeds through the following steps as defined by the RPA's website:

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA

OCTOBER 17, 2008

PROJECT # 14-3563.00

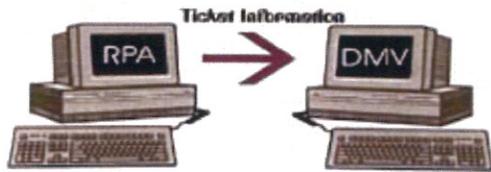
Table 45: RPA Poster Parking Enforcement Policy



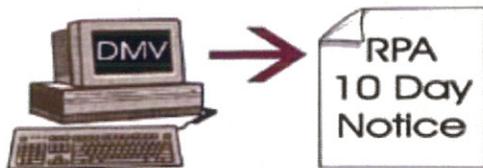
A Parking Ticket is issued by Police or Parking Enforcement Officer.



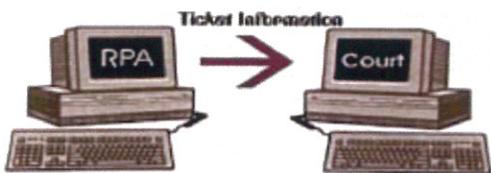
Payment must be received by the Parking Authority within 240 Hours (10 Days) of issuance. Fines increase automatically after 240 Hours.



Ticket information is electronically transmitted to DMV for current owner name and address.



Upon receiving the information from DMV a "Ten Day Notice" is mailed by RPA to the registered owner.



Once the "Ten Day Notice" period expires the violation is electronically transmitted to the Court.



A plea form is sent to the registered owner by the District Justice and a hearing may be scheduled to contest the violation.

Source: RPA website – [www.readingparking.com](http://www.readingparking.com).

## PARKING SYSTEM STRATEGIC AND BUSINESS PLANS

The RPA has no formal parking system strategic and business plan.

Recommendation: None.



OCTOBER 17, 2008

PROJECT # 14-3563.00

## PROGRAM ADMINISTRATION AND DEPARTMENTAL ORGANIZATION AND STAFFING

The RPA was incorporated in 1957 by the City of Reading under the Commonwealth of Pennsylvania's Parking Authorities Law of 1947. The RPA is a municipal authority that is governed by a five-member Board of Directors, three of which must be residents of the City of Reading, that is appointed by the Mayor of Reading and that must be approved by a majority of Reading City Council. The Board of Directors of the Reading Parking Authority meets on the fourth Wednesday of each month to conduct business.

The RPA's executive director, who is responsible for directing the daily activities of the authority, is accountable to the RPA board. The executive director has three department heads, one each for administrative, off-/on-street operations, and maintenance.

Recommendation: This organizational structure is common and appears reasonable. No change is recommended.

## BENCHMARKING STUDY

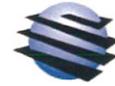
Six other cities were surveyed to collect data describing their parking systems for the purposes of understanding how the City of Reading compares to these other communities. The cities surveyed included five Pennsylvania cities similar in size to Reading and the City of Greenville, South Carolina, a growing city that is renowned for its progressiveness and economic development<sup>20</sup>. The five Pennsylvania cities include Allentown, Bethlehem, Lancaster, Scranton, and York. Benchmarking studies can provide useful information for comparison purposes. However, the results of benchmarking studies must be carefully interpreted. For example, it is often inappropriate to take the average or median observation and conclude that the study subject should strive to meet this average or median observation. Circumstances may be such that the study subject should be much different than the study group. Additionally, every representative of the study group could be using an inappropriate approach.

---

<sup>20</sup> Walker Parking Consultants suggested a number of Pennsylvania cities for inclusion in a benchmarking study. These cities were vetted with the Reading-based working group of community leaders that was established for the purposes of carrying out this project. Based on feedback received from this working group, six cities were identified.

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



**WALKER**  
PARKING CONSULTANTS

OCTOBER 17, 2008

PROJECT # 14-3563.00

## Recommendations:

- Discontinue practice of transferring funds from the parking authority to the City's general fund. The RPA will become weak and incapable of carrying out its mission, with long-term consequences for downtown Reading, if this past practice continues. A strong parking authority is one that can invest in existing facilities to prolong its life and also invest in new facilities to help stimulate or support economic development initiatives.
- Increase fine for illegal parking in accessible space to \$250.



## SCOPE OF SERVICES

In order to properly address the needs of the City, Walker performed the following scope of services under phase 1:

### *TASK 1 – CURRENT AND FUTURE PARKING ADEQUACY*

Objective: To quantify the city's current and future parking needs.

1. Project Start-Up Meeting. Meet with city representatives to kick-off the study project and carry out the following activities:
  - a. Further confirm the study's objectives, review the work plan, set work session dates, finalize the project schedule; and
  - b. Establish the lines of communication and a schedule of deliverables.
2. Data Collection. Carry out the following data collection program:
  - a. Obtain the following information from city representatives:
    - i. Employment – The most recent and accurate data the city can provide for the Study Area.
    - ii. Number of residents living within the Study Area;
    - iii. Future developments – This includes type of land use, square footage, seating capacity, expected completion date, location, and whether any existing parking spaces will be displaced;
    - iv. Forecasted growth rates for employment and residential populations;
    - v. Copies of any previous parking studies, community master plans or downtown market studies; and
    - vi. Aerial photographs and AutoCAD base maps of the Study Area.
  - b. Conduct an inventory of on-street and off-street parking spaces in the Study Area. Inventory will be tabulated and summarized on a block-by-block basis. Tabulation will include block identification, capacity, public vs. private, parking rates, and time restrictions.
  - c. Perform a parking space occupancy count survey for all public and private on-street and surface lot parking facilities located within the Study Area sometime between 9 am and 3 pm on a weekday.
  - d. Conduct a license plate survey of a selected representative sampling of on-street spaces to determine turnover and duration characteristics of these spaces.
  - e. Spend up to one day conducting leadership interviews with representatives of some of the following organizations: Berks County Office of Community and Economic Development, Berks Economic Partnership, City of Reading, Initiative for a Competitive Greater Reading, Reading Downtown Improvement District, Reading Parking Authority, Sovereign Center & Performing Arts, and RiverPlace Development Corporation.



3. Analysis. Conduct the following supply/demand analysis:

- a. Analyze data collected.
- b. Model parking demand within the Study Area including the impacts of proposed developments.
- c. Analyze the existing and future parking demand and break down into sub-areas within the Study Area taking into consideration current parking counts, existing land uses, and proposed developments.
- d. Identify geographic areas that require additional parking supply.
- e. Quantify parking deficits in aforementioned geographic areas under existing conditions and future conditions, including a five- and ten-year planning horizon.
- f. Identify the top three primary epicenters of unmet parking demand within the CBD that are underserved with parking resources and could be remedied by the construction of off-street parking structures.

## *TASK 2 – PARKING SUPPLY AND DEMAND REDUCTION ALTERNATIVES*

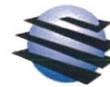
Objective: To identify and evaluate options for meeting the city's current and future parking needs.

1. Data collection. Perform the following data collection tasks:

- a. Confer with city and private sector representatives identified by the city, to determine potential locations for off-street parking structures.
- b. Identify concepts for new parking facilities and/or the expansion of existing facilities and illustrate on a site plan.
- c. Obtain and review as-builts of existing Reading Parking Authority-owned parking structures to determine expansion opportunities.

2. Analysis. Conduct the following analysis:

- a. Discuss potential reductions in parking demand as a result of utilizing transportation demand management (TDM) tools, including improved transit service, to modify user group and/or land use parking requirements. The results of this discussion may lead to an overall percent reduction in future parking demand.
- b. Evaluate TDM strategies including the following:
  - i. Car pooling;
  - ii. Van pooling;
  - iii. Parking incentives;



- iv. Wayfinding improvements;
  - v. Peak hour parking;
  - vi. Reserved high occupancy parking;
  - vii. Parking cash-out;
  - viii. In-lieu development fees;
  - ix. Remote park & ride lots on the fringe of the downtown area;
  - x. Pricing of parking to reduce parking demand;
  - xi. Financial incentives to increase transit ridership;
  - xii. Real-time transit information and other technology based solutions;
  - xiii. Transit discounts;
  - xiv. Real-time ridesharing;
  - xv. Walking; and
  - xvi. Bicycling.
- c. Summarize the results of the TDM strategies in a spread sheet format listing the following:
- i. Goals and issues addressed by alternative;
  - ii. Associated implementation plans;
  - iii. Phasing and schedule for improvements;
  - iv. Key considerations;
  - v. Challenges;
  - vi. Potential revenue sources; and
  - vii. Level of effectiveness, applicability and feasibility.
- d. For each new parking concept, estimate out-to-out dimensions, probable building height, and parking capacity.
- e. Review existing vehicular and pedestrian access and circulation patterns for their relationship to existing and proposed parking generators and the parking supply.
- f. Determine possibilities of expanding existing parking facilities to meet parking needs identified in Task 1.
- g. Develop options for expanding the parking supply. Determine if there is a need for a parking structure in the downtown. Identify alternative locations for such a parking structure.
- h. Develop an opinion of probable construction and project cost for each alternative on a conceptual basis without the benefit of design drawings.
- i. Evaluate the various alternatives on the basis of qualitative criteria to be mutually agreed upon with the city using a weighted matrix. Evaluation criteria may include but are not limited to capital cost, life cycle cost, ability to generate revenue, location, visibility, pedestrian access, vehicular access, traffic impact, aesthetics, implementation time, security, and future versatility.

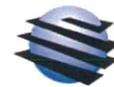


- j. Recommend the most feasible solutions to meet existing and future parking needs.
3. Progress Meeting. Meet with the steering committee to present initial findings and recommendations and elicit feedback.

### *TASK 3 – FINANCIAL PLANNING AND REVIEW OF ORGANIZATIONAL STRUCTURE*

Objective: To project future costs to own and operate the authority-owned parking system and to determine parking rate adjustments necessary to carry out city's strategic objectives while at the same time, responsibly operating and maintaining the authority's parking assets. To study various methods of financing and organizational structures to enable the City to fund its future parking infrastructure projects.

1. Data collection. Perform the following data collection tasks:
  - a. Interview city representatives to determine parking system improvements that require the development of a financial plan.
  - b. Conduct a benchmarking study of parking rates in cities considered comparable to Reading.
  - c. Research the local market to verify the reliability of the operating cost figures derived from the database.
2. Analysis. Perform the following analysis:
  - a. Identify and evaluate various organizational structures that may be used to provide a framework for parking facility financing.
  - b. Identify and evaluate various financing methods that may be used to fund future parking infrastructure.
  - c. Using Walker's database of operating expenses (collected periodically from more than 200 parking facilities), project annual parking system operating expenses for a ten-year period, including but not limited to:
    - i. Direct labor (cashiers, supervisors, accounting, maintenance, and security) and fringe benefits;
    - ii. Utilities;
    - iii. Supplies;
    - iv. Daily maintenance (contracts and equipment)
    - v. Snow removal; and
    - vi. Structural maintenance (a sinking fund for periodic major expenses)
  - d. Evaluate potential revenues sources that may be used to assist in financing future city-owned parking facilities. Those may include but are not limited to the following:
    - i. Parking facility rates;



- ii. On-street meter collections;
  - iii. Parking citation rates; and
  - iv. Parking citations collection rates.
- e. Using Walker's past experience and making necessary adjustments based on the research of local costs, project on a conceptual level, the following costs associated with future parking facilities: construction costs, contingency costs, consulting fees, financing costs, bond/mortgage amount, and the interest rate of the loan.
- f. Based on the findings of the market study, forecast the annual net operating income of the parking system for a ten-year period.
- g. Prepare a forecast of net operating income and debt service coverage and projected cash flow for a ten-year period.
- h. Recommend future parking rates for city-owned parking facilities and/or alternative strategies to fund future parking facilities.

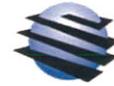
## *TASK 4 – PARKING POLICIES*

### 1. Data Collection.

- a. Develop an understanding of the following:
  - i. On- and off-street parking policies;
  - ii. Parking enforcement policies;
  - iii. Rate and fines structures;
  - iv. Parking system financial statements;
  - v. Parking system strategic and business plans;
  - vi. Logistical problems;
  - vii. Program administration; and
  - viii. Departmental organization and staffing.
- b. Survey six (6) other similar cities to Reading regarding their downtown parking policies including parking system rates and fines.

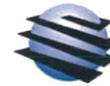
### 2. Analysis. Develop recommendations regarding:

- a. Parking policies and objectives;
- b. Parking rates and fines;
- c. Proper function of a department to handle on-street and off-street parking;
- d. How parking revenues might be used to enhance the city's parking program; and
- e. Enforcement policies.



*REPORTS AND PRESENTATION*

1. Prepare a draft report and submit to the City for review and comment.
2. Deliver a PowerPoint presentation to the Reading City Council with the objective to obtain their input and gain their support.
3. Obtain feedback regarding draft report from city representatives, finalize report, and issue twenty (20) bound, color copies of the final report and one reproducible electronic copy in PDF format. Final report to include the following:
  - a. Description of study methodology;
  - b. Tables and graphs containing key information;
  - c. Maps showing Study Area, major landmarks, and parking facilities; and
  - d. Executive summary documenting salient findings and recommendations.



## TRANSPORTATION DEMAND MANAGEMENT, PARKING MANAGEMENT, AND THE CASE OF DOWNTOWN SAN JOSE

San Jose has been aggressive in its undertaking of a number of TDM policies and the City's policies illustrate the use of a number of parking demand management policies. The strategy was developed as part of a larger parking management plan that was put in place in 2001. In 2002, real estate development in the Silicon Valley area fell victim to the dot com bust and, as a result, little has been built in Downtown San Jose since the plan was put in place. Therefore, the City has not had much opportunity to put its parking demand reduction tools into practice.

According to the City's Redevelopment Agency's Chief of Staff, Abi Maghamfar, the parking requirements for office buildings in the downtown area are both minimum *and* maximum requirements. Until recently, parking requirements for office space was 3 spaces per 1,000 sf. However, the City's goal is to incrementally lower the parking requirement, partly through incentives to developers to build less parking and partly in tandem with a staggered expansion of public transportation in the downtown (primarily the region's new light rail system). As an additional segment of the light rail system was recently completed, San Jose's parking requirement for office buildings was reduced to 2.8 spaces.

Point system: In addition to the lowered parking requirement linked to the increasing availability of public transit, developers can earn credits toward reducing the amount of parking they provide on site by an additional 15%. They gain these credits by submitting plans to the City for reducing transportation and parking demand. Creating a cash-out program, carpool program, or providing eco passes or off-site parking for employees allows developers to earn parking requirement reduction credits.

Maghamfar said that developers must apply for the program and parking requirement reduction. To be eligible, firms must employ a transportation coordinator and provide the City with an annual report on the status of the transportation program for their employees.

When asked if there are developers who do not want the reduction in parking requirements, perhaps because they believe that additional parking spaces add value to their buildings, Maghamfar said that the City has not had any developers protest the policy. He did, however, suggest one governmental and one natural restriction that may help the program in San Jose succeed. Buildings in San Jose have strict height requirements because of their proximity to Mineta International Airport. As a result, every floor of above-ground parking below the buildings replaces a floor of rentable space; this provides a strong incentive to build on-site parking underground. However, the City also has a very high water table. The result is construction costs for underground parking that are even higher than in other locations, roughly \$40,000 per space. Maghamfar says that these barriers create a strong financial motivation for developers to minimize this "huge initial cost upfront."



## LLOYD DISTRICT TMA – PORTLAND, OREGON

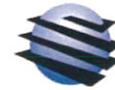
The Lloyd District TMA (LDTMA) was established in 1995 as a non-profit business association. While there are more than 650 businesses located within the LDTMA boundaries, 71 business representing 9,000 employees are members of the association. It provides effective transportation programs and services, a forum for businesses and neighborhoods to work together, coordinates committees working directly on Lloyd District transportation issues, assists with ECO (Employee Commute Options) Rule compliance, and advocates on behalf of the Lloyd District businesses.

The Transportation Coordinator's Network, work in conjunction with the Pedestrian, Bicycle, Marketing and Transportation Committees work to educate and implement programs with the goal of improving the accessibility and ultimately the economic vitality of the Lloyd District. In addition to performing administrative tasks and general outreach programs, the LDTMC has been an advocate of multiple transportation programs including the Transit Tracker program, PASSport program (The Universal Pass), carpooling programs, bicycle programs and pedestrian environment improvement programs.

The PASSport Program enables employers to purchase an annual all-zone transit pass at a reduced rate per employee for all qualified employees. The Passport has been renamed the Universal Pass. It is a non-transferable photo ID affixed with a TriMet validation sticker. The sticker can be attached to either an employee photo ID badge or a TriMet Universal Pass photo ID badge by the employer. Once the sticker is attached, the badge becomes a valid transit pass, as well as substitute for bus and MAX fare. The Universal Pass provides the user with one year of unlimited riding of TriMet bus routes, MAX trains, Portland Central City Streetcar, LIFT and the C-Trans #65. Additionally the Pass provides users with access to a free ride home in a taxi or rental car in case of emergencies and a ten-cent discount on Starbuck's coffee.

Carpool Match Network is another program LDTMA instituted to help reduce single occupancy vehicles in the Lloyd District area. Carpool permits are sold for \$45 dollars and enable the parker to utilize one of the more than 150 on-street reserved spaces between the hours of 6:00 a.m. and 10:00 a.m. The Carpool Match Network is a safe and secure website used to match carpool partners. Individuals, who wish to participate in the carpool program register, indicate their preferred partners, are provided with email contact information on a prospective partner, and then decide whether to pursue the partnership.

The purpose of the programs above, and so many others implemented by LDTMA is to reduce the number of single occupancy vehicles driving into and/or parking in the area, the amount of traffic congestion and air pollution. And it's working! In the TMA's annual report commuters were surveyed about their method of transportation to work. Since 1997, the percent of employees driving alone has been reduced by almost 28%.

JULY – AUGUST 2008

---

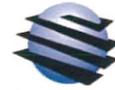
## 1. What are the major challenges facing the City of Reading?

- The City's tax base is not generating enough income to keep pace with expenses.
- All Third Class Cities in Pennsylvania, including Reading, are struggling right now.
- Tax-exempt financing has been used heavily in the past and this has restricted the City's tax base.
- There is a perception problem that Reading is not a safe place. People will go to work in the downtown but are reluctant to go downtown at night. The recent melee during the opening of the IMAX Theater is an example.
- Redevelopment is a challenge. Specifically, how does the city add taxable properties to its tax rolls? How can the city compete with suburban developments?
- Crime, economic development, and fiscal solvency are the major challenges.
- Reading is broke like other third class cities.
- There is a disinvestment challenge. Real estate is affordable in Reading. This allows property owners to "sit" on undeveloped property over a long-term. There are several key properties within the downtown and nearby residential areas that are not being developed, particularly along Penn Street. Several vacant buildings within the downtown present a challenge.
- The charter for third class cities fosters an incompetent leadership structure in that the city has too many checks and balances that effectively tie the hands of the mayor.
- Without sounding pessimistic, there are a number of challenges facing the city. One is how to handle the influx of minorities and provide jobs. Another is promoting economic development to create jobs.
- Road conditions are substandard. For example, PADOT 222 is a good road south of Reading. North of Reading, it is not so good. Reading needs a better road connecting to New York City. PADOT 78 is not a very good road.

---

2. Does parking work in downtown Reading? If so, why? If not, why not?

- For everyday users, parking works – "you're golden." However, infrequent visitors struggle with parking. Better and more signage is needed. Prospective employers are seeking an environment that features low cost or free parking. Sometimes parking can be the tipping point when a developer is considering locating in downtown Reading versus another location that provides free parking.
- RPA does a good job with its operations.
- Reading Parking Authority ("RPA") facilities are reportedly 92% occupied during peak hours.
- Parking works most of the time. It can be a problem when there is a daytime event with 3,000 people.
- Reading has a lot of building space with no adjacent parking.
- People have trouble finding parking; those having trouble are typically "out-of-towners" or infrequent visitors.
- In general, parking works. Short-term parking can be difficult to find. All-day parking takes up a lot of the parking. Short-term parking competes with long-term parking. Weekday daytime events at the Sovereign Center create a parking problem. Commuter parking seems to be working well.

JULY – AUGUST 2008

---

- Most of the time, parking works. There is a surplus most of the time. Reading's parking problems are analogous to the U.S. Highway System; highways are congested during peak hours. During off-peak hours, there is plenty of open road. Reading's parking problems occur when events are simultaneously held at the Sovereign Center and the Performing Arts Center. There is plenty of parking if people are willing to walk two blocks. People in Reading have a very high expectation to have available parking located at the front door of their destination. There are 35,000 parking spaces within 1.5 miles of the Sovereign Center. Parking is perceived as "not working" because it is not always available at the curb front.
- The RPA needs new board members.
- The RPA needs to be separated from city government.
- Parking works somewhat. There is ample parking for businesses.
- The proposed hotel will make parking interesting. State Lot may be developed.
- There is no system to get people to major events; Reading needs automated signage system. The Jehovah's Witnesses do a good job of directing traffic largely with their own people. Reading needs a special event parking strategy. Downtown signage for buildings is non-existent.
- There is enough parking for special events because these typically occur during off peak hours.
- The Reading Area Community College considered relocating at one point, but did not because administration believed that parking was inadequate in the downtown core.
- The Berks Economic Partnership has been working with local developers, i.e., along Walnut and the 900 block of Penn, to convert existing downtown building space to residential use; availability of parking has been an issue.
- Directional and parking-related signage is important to the Sovereign Center because an estimated 60-70% of Sovereign Center sporting event attendees originate from Berks County, compared to an estimated 45% for concert attendees. The Sovereign Center advertises to residents within a 30-45 mile radius.

---

### 3. What parking-related improvements would you like to see in downtown Reading?

- The RPA needs to focus on providing readily accessible and cost effective parking for short-term dwellers.
- The RPA doesn't do a very good job of enforcing posted time limits. Not having time limits would cause more problems. Time zones should be better enforced.
- Parking management, like Vancouver, British Columbia practices, is needed in Reading. Vancouver has digital signage that helps motorists keep track of where available parking spaces are located.
- Reading does not embrace transportation demand management principles. Public transportation will not solve parking challenges.
- Past focus has been on the details instead of on the strategy. We need to focus on the strategy of parking policy and parking management.
- Expansion of new garage in the downtown core, along Penn.
- Need better signage promoting the downtown and facilitating access and safety.
- The Riverfront will need more parking concurrent with prospective development projects.



JULY – AUGUST 2008

- The City of Greenville, South Carolina has done a fantastic job with its downtown, including parking. Reading could emulate some of the things done there.
- Better signage and more signage are needed.
- More parking is needed; parking needs to be better designated.
- Instead of looking at stark surface lots, perhaps a parking streetscape or false façade can be built to hide parking lots from view. Grade level retail is desirable; however, the retail at the 2<sup>nd</sup> and Washington Garage is not a good example. This is not an area that has pedestrian traffic.

---

#### 4. What is the role of the Reading Parking Authority in promoting a vibrant community?

- The RPA has taken action to improve the city. Following are several examples:
  - The RPA added two levels to the Cherry Street Garage at a \$3 mm cost; the return on this expansion was minimal the Authority;
  - The development of the IMAX theater required the RPA to donate half an acre of land; and
  - The RPA sold the Goggleworks property to the City for \$150,000 when it was appraised at \$900,000; this was not a good financial decision for the Authority; however, it is the proper role of the Authority. There is a limit at which the RPA cannot afford these types of transactions.
- The RPA does a lot to kill a vibrant community. For example, slot boxes are used after hours instead of raising the gates and letting people out without paying. The RPA is motivated by maximizing income.
- The RPA should be involved in major planning decisions.
- The original mission of the RPA was to provide convenient and safe parking. This is still a goal; perhaps the RPA should engage in a little more marketing. Any suggestions?
- The role of the RPA is to provide safe, easily accessible, non-cumbersome parking. The difficult and expensive parking conditions in New York City are the opposite of what Reading should be.
- The RPA's role is to provide accessible parking. People need to feel safe in parking facilities. Parking needs to be cost effective. An appropriate number of spaces need to be provided. Rates are fairly reasonable. The perception of some is that parking is expensive. In reality, however, rates fall within the realm of other similar communities.

---

#### 5. Are there any parking policies that you believe need revising? If so, what are these and why do you think these need revising?

- If you're an office worker parked in an RPA garage after hours and during a special event, you can get a ticket.
- No response. Didn't have any suggested revisions.



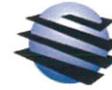
JULY – AUGUST 2008

- The RPA has a history of approaching city council with policies that it believes require revising. For example, the city council was approached about an issue regarding parking in front of fire hydrants. The RPA has approached the city council about the fact that current off-street rates are \$2 per hour with an \$8 daily maximum; this rate structure encourages many people to park on-street because of lower cost of on-street parking.
- Short-term parking needs to be evaluated. The top floors of many parking structures are empty and it would be helpful to force monthly parkers to use the top floors to create spaces below for short-term patrons. There are significant problems with on-street parking throughout the city. There is probably not enough on-street parking and the city probably cannot increase the existing on-street parking supply.
- The RPA has looked at using different parking meters, including smart meters.
  - Specifically, 280 smart meters were purchased from Intelligent Devices Inc. for \$175 each. These meters were ultimately returned and the RPA was refunded its purchase price. RPA administration was criticized publicly and asked, "Are you the Grinch that stole Christmas?" Some residents seem to believe that low-cost or free parking is an entitlement.
  - The RPA has used pay and display parking meters. Specifically, Schlumberger equipment was installed on a trial basis and removed 3-4 years ago. People reportedly often paid for parking but neglected to display their receipt in their windshield, only to be upset later because they ended up with a parking ticket.
  - In 1995, the RPA took over on-street meters from the city for \$440,000 per year.
- The proposed \$8 million funds transfer from the RPA to the City of Reading is a stupid idea.
- Parking is a cash intensive business and is therefore at risk for embezzlement. The RPA may have some revenue control issues with respect to its payment by tokens system, a lack of lane counters in many facilities, the use of envelopes after hours, etc.
- There are no parking attendants in the garages at night; this creates a security void.
- A lot of RPA enforcement officers use bicycles and they may be a little overzealous with respect to enforcing parking regulations.

---

6. Is the parking supply in downtown Reading sufficient?

- Yes, parking is sufficient if everyone plays the game. Businesses cannot park or expect to park in front of their own business though.
- Parking in downtown Reading is more than sufficient.
- Parking is insufficient.
- For the most part, parking is sufficient. Cross events create parking problems; otherwise, parking capacity is fine.
- No, parking is not sufficient.
- Yes, parking is sufficient. However, the experience of getting from the parking garage to the end destination could be better.

JULY – AUGUST 2008

---

---

7. Is there enough parking for events at the Sovereign Center?

- There is sufficient parking for night and weekend events held at the Sovereign Center. Monthly parking patrons feel ill-will when events are held during times that create competition for parking.
  - Parking at the Sovereign Center is sufficient for events starting after 5 p.m. during the week. Weekend parking is not an issue. It can be challenging to park cars for events that start before 5 p.m. on weekdays.
  - Yes, there is sufficient parking for events at the Sovereign Center when people are willing to walk a couple of blocks.
  - The Sovereign Center is short of parking when there are two simultaneous shows or when the city has a function that occurs simultaneously with a Sovereign Center event.
  - The proposed hotel will create a parking issue.
  - My personal experience is that there is adequate parking at the Sovereign Center. The only time there is a problem is during daytime events; however, there are not that many daytime events.
  - There is enough parking for events at the Sovereign Center. The only problem occurs during weekday daytime events.
- 

8. What are your primary concerns relating to parking in the downtown? What about parking in general?

- Surge parking is an issue. The RPA should not have to turn away business parkers.
  - Safety and perceived safety are primary concerns. Reading needs signage showing motorists where to park and how to reach final destination.
  - Reading needs parking management like they have in Vancouver.
  - Parking needs to be more convenient.
  - Perception is a significant issue relative to parking. Reading needs to market the convenience of parking. Safety is an issue. The city is densely populated and everyone has a car. There is no residential parking permit program similar to those in College Park, Maryland and Austin, Texas. The recent shooting involved a dispute for an on-street parking space.
  - Reading should eliminate parking meters; they cost more money than they bring in.
  - Different parking policies for residential areas should be adopted separately from the parking policies adopted for commercial areas.
  - More signage is needed.
  - More emphasis should be placed on the availability of more short-term parking.
- 

9. Should the city take an active role in promoting transportation modes other than single occupancy vehicle? If so, what are your thoughts?



JULY – AUGUST 2008

- The purpose of the city is to provide public safety and infrastructure. The city cannot ignore transportation; however, transportation is not part of the city's mission. City is not envisioned as getting into the transportation demand management business; BARTA might though.
- No, the RPA's role is to provide parking and not promote alternative modes of transportation.
- No, the City of Reading should focus on balancing the budget and not getting into the public transportation business.
- Shuttle and signage system could be better.
- BARTA provides buses.
- The city's role is important to reduce the number of single occupancy vehicles. The community needs to practice smart transportation and be concerned about moving people, not just cars. The pollution created by idling vehicles on the Penn Bridge Crossing has been an issue. BARTA is beginning a rideshare program with the local MPO. There are too many single occupancy vehicles now. There are no known vanpools or employers in the city offering four-day work weeks. It is important that the community offer transportation choices. Interregional connections are offered, linking park and ride lots in one community with bus service in another. Reverse commuting is growing.
- Yes, the city should take an active role in promoting alternative modes of transportation. However, the city does not have the money to serve in this capacity. No organization exists in Reading to promote alternative transportation modes to the single occupancy vehicle.
- Lights on Penn are improperly timed.
- City should pursue transportation demand management.

10. If additional surface or structured parking facilities were to be developed within the downtown, what sites seem to be a priority for this type of use?

- Scott Hoh, a local developer, has discussed the possibility of developing a mixed-use facility at the corner of 7<sup>th</sup> and Washington Streets. The RPA may pay for this parking. The developer would buy the site from the RPA.
- Al Boscov suggested once that the Post Office be demolished and replaced with a mixed-use development. The challenge for this site is historical preservation; maybe keep façade.
- 2<sup>nd</sup> and Washington is a potential site for structured parking; the RPA is running out of space.
- Goggleworks may expand by acquiring single-family housing in area. RPA could build a parking structure.
- Everyone thinks they want parking next to their building. The city needs a tax base and prospective developers often request tax abatements which are in conflict with the city's need to keep up with its operating expenses. Some people believe that satellite parking is a good idea; it requires good connections. The Penn Quarter Group recently had a trolley study completed.
- A site near the theater.
- No parking garages are needed on Penn Avenue.
- The parking lot located across from the Sovereign Center is a priority for future parking; this is the site for the proposed hotel and parking structure. Concern is that if hotel and parking structure are built at this location, gain of only 50± spaces is expected.
- No opinion provided on locations of future parking.

## LEADERSHIP INTERVIEWS

CITY OF READING PHASE I PARKING STUDY



**WALKER**  
PARKING CONSULTANTS

---

JULY – AUGUST 2008

- Before building new garages on existing surface lots or other parcels, existing garages should be expanded vertically. Historically, parking structures in Reading have not contributed to an active streetscape. Focus should include communities adjacent to Reading; where possible, communities should collaborate to help one another solve their transportation challenges.

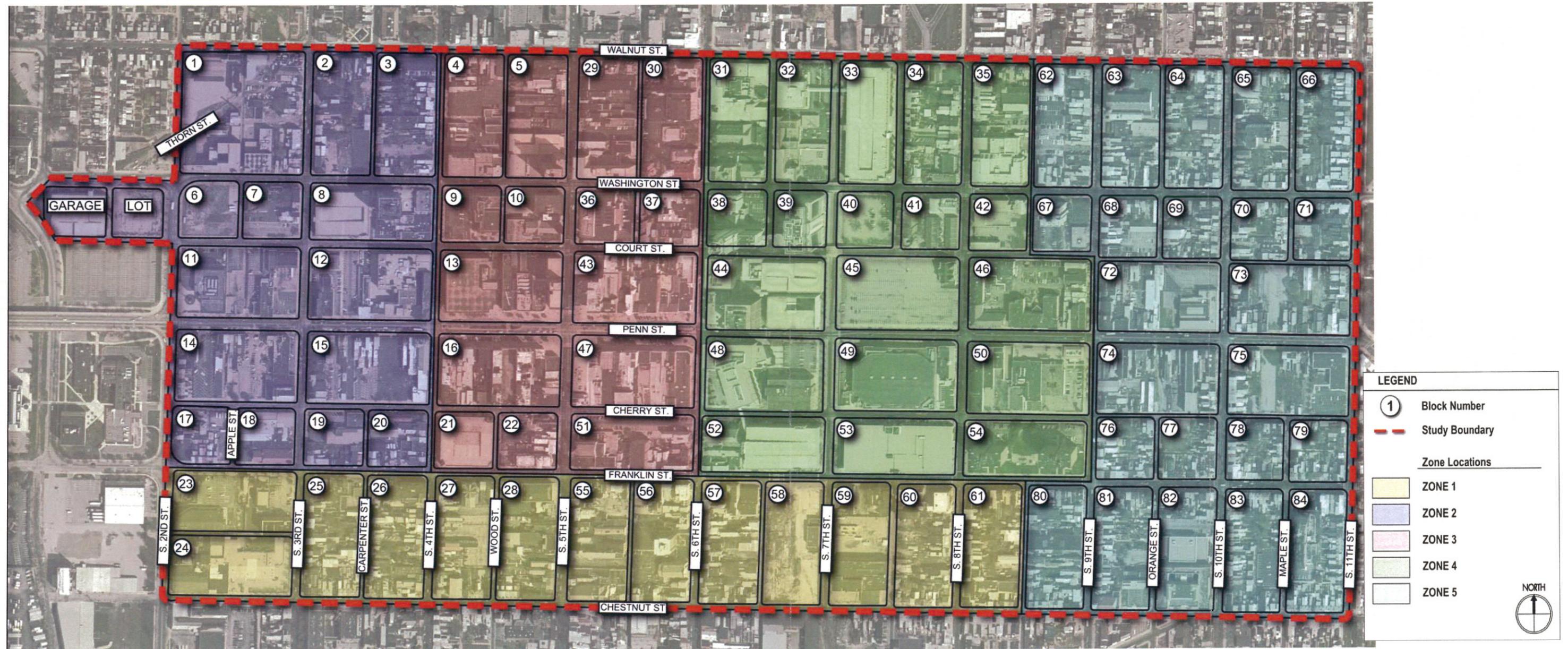
# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA

OCTOBER 17, 2008

PROJECT # 14-3563.00

Figure 2: Study Area Map



Source: Google & Walker Parking Consultants

Figure 3: Current Occupancy Map

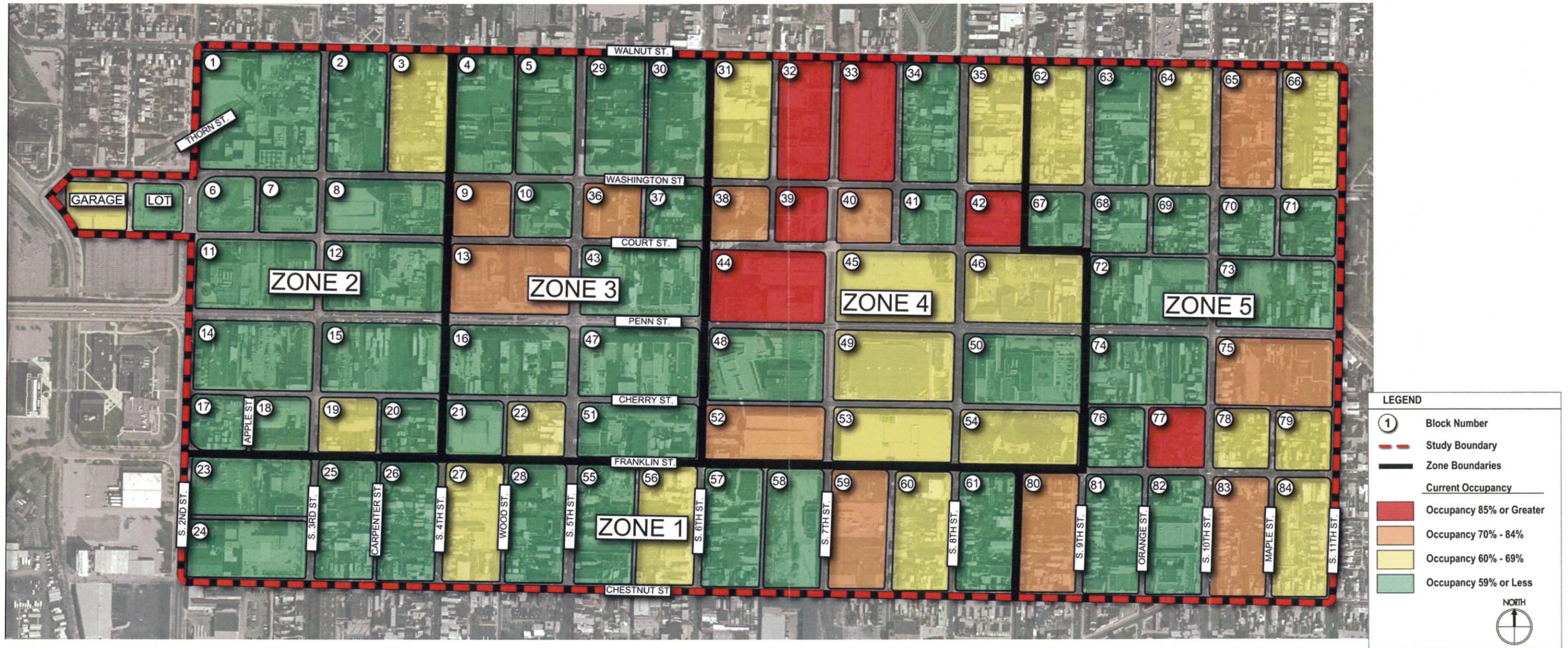


Figure 7: Future Weekday Occupancy by Zone – 5 Year Projection



Figure 8: Future Weekday Occupancy by Zone – 10 Year Projection



# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA

OCTOBER 17, 2008

PROJECT # 14-3563.00

Figure 9: Expansion Alternatives



Table 27: Alternatives Matrix

CRITERIA	Weight	Alternative 1A		Alternative 1B		Alternative 2A		Alternative 2B		Alternative 2C		Alternative 2D	
		State Lot Garage		GoggleWorks Garage		2nd & Washington Garage Expansion		Chiarelli Garage Expansion		Reed & Court Garage Expansion		BARTA P-N-T Garage Expansion	
		Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score
Proximity to Zone 4 Demand Generators (Office/Sovereign Center)	5	5	25	1	5	1	5	2	10	5	25	3	15
Proximity to Demand Generators (GoggleWorks and IMAX Theater)	3	1	3	5	15	4	12	3	9	1	3	1	3
Necessary to Acquire Land	4	5	20	2	8	1	4	1	4	1	4	5	20
Increased Capacity of System	4	3	12	4	16	4	16	5	20	3	12	2	8
Mixed-Use Potential	2	3	6	4	8	4	8	3	6	4	8	2	4
Aesthetic Value	1	3	3	4	4	4	4	3	3	3	3	2	2
Proximity to Future Developments	3	4	12	4	12	4	12	3	9	5	15	2	6
Temp. Displacement of Close-In Parking During Construction	3	1	3	3	9	4	12	4	12	4	12	1	3
Site Wayfinding	1	4	4	3	3	4	4	5	5	5	5	2	2
Traffic Flow	2	2	4	4	8	4	8	4	8	2	4	4	8
Construction Cost	5	4	20	5	25	3	15	3	15	2	10	1	5
LOS of Facility	4	1	4	5	20	3	12	4	16	3	12	2	8
<b>Total</b>		<b>36</b>	<b>116</b>	<b>44</b>	<b>133</b>	<b>40</b>	<b>112</b>	<b>40</b>	<b>117</b>	<b>38</b>	<b>113</b>	<b>27</b>	<b>84</b>
5 = Most Important , Best <span style="margin-left: 200px;">1 = Less Important , Worst</span>													

**Table 29: TDM Summary**

Type	Ride Sharing	Parking Cash Out	Bicycle Improvements	Pedestrian Improvements	Wayfinding & Signage
Goals & Issues Addressed by Alternative	<ul style="list-style-type: none"> <li>o Reduce number of SOV;</li> <li>o Reduce traffic congestion and air pollution;</li> </ul>	<ul style="list-style-type: none"> <li>o Reduce number of SOV;</li> <li>o Reduce traffic congestion and air pollution;</li> <li>o Reduce quantity of new parking built or subsidized;</li> <li>o Educate parkers about the COST OF PARKING;</li> <li>o Provide drivers with a choice.</li> </ul>	<ul style="list-style-type: none"> <li>o Reduce number of SOV;</li> <li>o Reduce traffic congestion and air pollution;</li> <li>o Reduce quantity of new parking built or subsidized;</li> </ul>	<ul style="list-style-type: none"> <li>o Teach drivers to park at facilities located 1+ blocks from their destination;</li> <li>o A feeling of safety for pedestrians becomes an issue as a driver parks farther from Penn Street.</li> </ul>	<ul style="list-style-type: none"> <li>o Provide residents and visitors with clear, consistent wayfinding system;</li> <li>o Inform parkers where their destination and available parking is located.</li> </ul>
Associated Implementation Plans	<ul style="list-style-type: none"> <li>o Occasional use permit;</li> <li>o Guaranteed/emergency ride home;</li> <li>o Ride match program.</li> </ul>	<ul style="list-style-type: none"> <li>o Guaranteed/emergency ride home;</li> <li>o Ensure ability of alternatives to support increased user demand.</li> </ul>	<ul style="list-style-type: none"> <li>o Improved Signage/Wayfinding;</li> <li>o Community bike programs;</li> <li>o Improved security, streetscape and lighting.</li> </ul>	<ul style="list-style-type: none"> <li>o Improved Signage/Wayfinding;</li> <li>o Incentive program for drivers who park and walk;</li> <li>o Security escorts in evening hours.</li> <li>o Shuttle services between garages and key destinations.</li> </ul>	<ul style="list-style-type: none"> <li>o Improved streetscape.</li> </ul>
Phasing & Schedule for Improvement	<ul style="list-style-type: none"> <li>o Program could be established within 6 months</li> </ul>	<ul style="list-style-type: none"> <li>o Program could be established within 12 to 18 months</li> </ul>	<ul style="list-style-type: none"> <li>o Program could be established within 6 to 12 months</li> </ul>	<ul style="list-style-type: none"> <li>o Program could be established within 12 months</li> </ul>	<ul style="list-style-type: none"> <li>o Program could be established within 12 months</li> </ul>
Key Considerations	<ul style="list-style-type: none"> <li>o Willingness of drivers to participate;</li> <li>o Pricing of Carpooling permit vs. SOV permit;</li> <li>o Internet based ride match program needs to be created and maintained.</li> </ul>	<ul style="list-style-type: none"> <li>o Willingness of drivers to participate;</li> <li>o Pricing of Carpooling permit vs. SOV permit;</li> <li>o Availability of alternative transportation programs.</li> </ul>	<ul style="list-style-type: none"> <li>o Willingness of drivers to participate;</li> <li>o Location of manned bike valets;</li> <li>o Cost to implement for partial year;</li> <li>o Cost to outfit BARTA buses with racks.</li> </ul>	<ul style="list-style-type: none"> <li>o Willingness of drivers to participate;</li> <li>o Location of available parking within a reasonable walking distance;</li> <li>o Marketing costs to inform drivers about available parking.</li> </ul>	<ul style="list-style-type: none"> <li>o Costs associated with implementing a city-wide signage system.</li> </ul>
Challenges	<ul style="list-style-type: none"> <li>o Driver incentives to carpool;</li> <li>o Overcoming the concern of an emergency with no transportation.</li> </ul>	<ul style="list-style-type: none"> <li>o Overcoming the concern of an emergency with no transportation;</li> <li>o Managing multiple flex plan options.</li> </ul>	<ul style="list-style-type: none"> <li>o Weather does not permit this option during certain seasons.</li> </ul>	<ul style="list-style-type: none"> <li>o Improving feeling of safety by improving lighting, streetscapes, signage;</li> <li>o Identifying and promoting parking located at a distance from destination;</li> <li>o Inclement weather discourages drivers.</li> </ul>	<ul style="list-style-type: none"> <li>o Identifying and promoting specific destinations and the associated parking;</li> </ul>
Potential Revenue Sources	<ul style="list-style-type: none"> <li>o Carpool permits;</li> </ul>	<ul style="list-style-type: none"> <li>o Freed capital otherwise needed to maintain and build parking???</li> </ul>	<ul style="list-style-type: none"> <li>o Storage and valet of bikes.</li> </ul>	<ul style="list-style-type: none"> <li>o Cost to park at currently underutilized garages</li> </ul>	
Level of Effectiveness	<ul style="list-style-type: none"> <li>o Moderate/High</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate/Low</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate/High</li> </ul>
Applicability	<ul style="list-style-type: none"> <li>o Moderate/High</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate/Low</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate/High</li> </ul>
Relative Feasibility <sup>12</sup>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate/Low</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate/High</li> </ul>

<sup>12</sup> In comparison to other alternatives

Type	Fee-In-Lieu	Higher Price for Parking & Lower Price for Transit	Parking & the Light Rail System	Subsidized Transit & ECO Passes	Real-Time Transit and Parking Information
Goals & Issues Addressed by Alternative	<ul style="list-style-type: none"> <li>o Reduce the amount of new parking being built;</li> <li>o Increase shared parking potential;</li> <li>o Build new public parking in locations accessible to multiple businesses/developments.</li> </ul>	<ul style="list-style-type: none"> <li>o Price parking and transit as to encourage people to use transit;</li> <li>o Reduce number of SOV.</li> </ul>	<ul style="list-style-type: none"> <li>o Price parking and transit as to encourage people to use transit;</li> <li>o Reduce number of SOV.</li> </ul>	<ul style="list-style-type: none"> <li>o Price parking and transit as to encourage people to use transit;</li> <li>o Reduce number of SOV;</li> <li>o Provide employers with a cost effective way to provide transit passes as an employee benefit.</li> </ul>	<ul style="list-style-type: none"> <li>o Increase transit ridership by informing potential users of transit times;</li> <li>o Direct parkers to available parking quickly and efficiently.</li> </ul>
Associated Implementation Plans	<ul style="list-style-type: none"> <li>o</li> </ul>	<ul style="list-style-type: none"> <li>o Guaranteed/emergency ride home;</li> <li>o Ensure ability of alternatives to support increased user demand.</li> </ul>	<ul style="list-style-type: none"> <li>o Guaranteed/emergency ride home;</li> <li>o Ensure ability of alternatives to support increased user demand.</li> </ul>	<ul style="list-style-type: none"> <li>o Guaranteed/emergency ride home;</li> <li>o Ensure ability of alternatives to support increased user demand.</li> </ul>	<ul style="list-style-type: none"> <li>o Ensure ability of alternatives to support increased user demand;</li> <li>o Internet based system to reserve or locate available spaces before leaving home.</li> </ul>
Phasing & Schedule for Improvement	<ul style="list-style-type: none"> <li>o Program could be established within 12 to 18 months</li> </ul>	<ul style="list-style-type: none"> <li>o Program could be established within 12 to 18 months</li> </ul>	<ul style="list-style-type: none"> <li>o Program could be established within 12 to 18 months</li> </ul>	<ul style="list-style-type: none"> <li>o Program could be established within 12 to 18 months</li> </ul>	<ul style="list-style-type: none"> <li>o Program could be established within 12 to 18 months</li> </ul>
Key Considerations	<ul style="list-style-type: none"> <li>o Interest of developers;</li> </ul>	<ul style="list-style-type: none"> <li>o Willingness of drivers to participate;</li> <li>o Pricing of parking vs. transit;</li> <li>o Availability of alternative transportation programs.</li> <li>o</li> </ul>	<ul style="list-style-type: none"> <li>o Willingness of drivers to participate;</li> <li>o Pricing of parking vs. transit;</li> <li>o Availability of alternative transportation programs.</li> <li>o Reintroduction of SEPTA R6 line.</li> </ul>	<ul style="list-style-type: none"> <li>o Willingness of drivers to participate;</li> <li>o Pricing of parking vs. transit;</li> <li>o Availability of alternative transportation programs.</li> <li>o Reintroduction of SEPTA R6 line.</li> </ul>	<ul style="list-style-type: none"> <li>o Man-power needed to maintain the system and ensure accuracy;</li> <li>o Cost to implement system in downtown area;</li> </ul>
Challenges	<ul style="list-style-type: none"> <li>o Identifying and promoting parking located at a distance from destinations;</li> <li>o Implementing legislation;</li> <li>o Market support.</li> </ul>	<ul style="list-style-type: none"> <li>o Overcoming the concern of an emergency with no transportation;</li> <li>o Ensuring transit routes travel to desired areas.</li> </ul>	<ul style="list-style-type: none"> <li>o Overcoming the concern of an emergency with no transportation;</li> <li>o Ensuring transit routes travel to desired areas.</li> </ul>	<ul style="list-style-type: none"> <li>o Overcoming the concern of an emergency with no transportation;</li> <li>o Ensuring transit routes travel to desired areas.</li> </ul>	<ul style="list-style-type: none"> <li>o Cost of implementing and maintaining real-time program;</li> </ul>
Potential Revenue Sources	<ul style="list-style-type: none"> <li>o In-lieu of fund.</li> </ul>				<ul style="list-style-type: none"> <li>o Cost to park at currently underutilized garages</li> </ul>
Level of Effectiveness	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate/High</li> </ul>
Applicability	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate/High</li> </ul>
Relative Feasibility <sup>13</sup>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>	<ul style="list-style-type: none"> <li>o Moderate</li> </ul>

<sup>13</sup> In comparison to other alternatives

**CURRENT DEBT OBLIGATIONS**

Current debt obligations extend to year 2028.

**Table 31: Debt Summary, year ended December 31, 2007**

Year Ending Dec. 31	Revenue Bonds/Notes Payable				Capital Leases		Notes to City		Total Long Term Obligations
	Series of 1993	Series of 2004	Series of 2006	Revenue Bonds Debt Service	City of Reading Restricted	Reading Redev Auth Unrestricted	City of Reading Reed & Court	City of Reading Abe Lincoln	
2008	2,765,000.00	478,413.33	66,332.50	3,309,745.83	67,749.00	20,000.00	3,000.00		\$3,400,494.83
2009	2,755,000.00	473,955.00	61,230.00	3,290,185.00	73,495.00	20,000.00	1,000.00		\$3,384,680.00
2010	2,760,000.00	470,445.00	61,230.00	3,291,675.00	79,242.00	20,000.00	1,000.00		\$3,391,917.00
2011	2,755,000.00	471,935.00	61,230.00	3,288,165.00	84,989.00	20,000.00	1,000.00		\$3,394,154.00
2012	2,760,000.00	468,230.00	61,230.00	3,289,460.00	92,247.00	20,000.00	1,000.00		\$3,402,707.00
2013	2,755,000.00	474,525.00	61,230.00	3,290,755.00	99,204.00	20,000.00	1,000.00		\$3,410,959.00
2014	2,745,000.00	485,430.00	61,230.00	3,291,660.00	74,705.00	20,000.00	1,000.00		\$3,387,365.00
2015	2,745,000.00	420,750.00	61,230.00	3,226,980.00	83,779.00	20,000.00	1,000.00		\$3,331,759.00
2016	2,740,000.00	423,410.00	61,230.00	3,224,640.00	89,828.00	20,000.00	1,000.00		\$3,335,468.00
2017	2,740,000.00	425,875.00	61,230.00	3,227,105.00	98,901.00	20,000.00	1,000.00		\$3,347,006.00
2018	2,700,000.00	503,032.28	68,145.85	3,271,178.13	232,156.00	20,000.00	1,000.00		\$3,524,334.13

Source: Concord Public Finance, 9/16/2008

# DOWNTOWN PARKING STUDY

READING, PENNSYLVANIA



OCTOBER 17, 2008

PROJECT # 14-3563.00

Table 46: Benchmarking Summary

Location	Reading, PA	Allentown, PA	Bethlehem, PA	Lancaster, PA	Scranton, PA	York, PA	Greenville, SC
<b>Method of Organization</b>	Parking Authority	Parking Authority	Parking Authority	Parking Authority	Parking Authority	Parking Bureau	Parking Services Division
<b>Description of System</b> <ul style="list-style-type: none"> <li>• # On-Street Meters:</li> <li>• #Lots/Capacity:</li> <li>• #Structures/Capacity:</li> </ul>	<ul style="list-style-type: none"> <li>• 1,100</li> <li>• 5/ 669+</li> <li>• 9/ 4,918</li> </ul>	<ul style="list-style-type: none"> <li>• 1,575</li> <li>• 28/ 4,433</li> <li>• 5/2,062</li> </ul>	<ul style="list-style-type: none"> <li>• 222</li> <li>• 10/1103</li> <li>• 3/1962</li> </ul>	<ul style="list-style-type: none"> <li>• 950</li> <li>• 5/ 173</li> <li>• 4/2980</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> <li>• 1/170</li> <li>• 4/2426</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> <li>• 14/994</li> <li>• 3/1269</li> </ul>	<ul style="list-style-type: none"> <li>• 0</li> <li>• 5/307</li> <li>• 11/6463</li> </ul>
<b>Are net revenues transferred to city?</b>	Yes	Yes Per ord. 12628	Yes/No *All revenue goes towards improvement of system	Yes, except Library Lot revenue, which goes back to library.	No	Yes	Yes
<b>On-Street Parking Rates</b>	\$1.25/hour	\$1.00/hour	\$0.50/30min-60min	\$0.25/15min	N/A	\$0.10/10min \$0.25/25min	Free
<b>Monthly Rates for Publicly-Owned Off-Street Facilities</b>	\$64.00 - \$93.00	\$38.00 - \$60.00	\$22.00 - \$50.00	\$65.00-unreserved \$80.00-reserved	\$55.00-Lot \$85.00-Garage	\$15.74 - \$96.58	\$36.30/\$51.80 - Lot \$69.70 - Garage
<b>First Hour Rate for Publicly-Owned Off-Street Facilities</b>	\$2.00	\$1.00	\$1.00	\$2.00	\$2.00	\$2.75	\$0.75
<b>Daily Rate for Publicly-Owned Off-Street Facilities</b>	\$8.00	\$6.00 - \$8.00	\$6.00	\$14.00	\$7.25-8hours *\$4.00 add-on after 6p.m. *\$10.00 add-on for over night	\$26.00	\$6.00
<b>Fine - Illegal Use of ADA Space</b>	\$75.00	\$50.00 w/i 10 days \$100.00 10-20 days	\$50.00	\$200.00	\$50.00	\$50.00	\$50.00
<b>Does City Boot?</b>	Yes, if there are 5 or more citations	Yes	No	Yes	Yes	Yes	Yes, if there are 5 or more citations
<b>Does City Decrease Fine for On-Time Payment?</b>	Lower fine for payment w/i 10 days	Lower fine for payment w/i 10 days	Lower fine for payment w/i 14 days	Lower fine for payment w/i 15 days	Yes	No	No
<b>Range of Fines</b>	\$15.00 - \$100.00	\$15.00 - \$75.00	\$10.00 - \$50.00	\$10.00 - \$200.00	\$4.00 - \$ 50.00	\$15.00 - \$50.00	No meters. Fines unavailable.
<b>Special Event Prices</b>	\$7 to \$10 depending on proximity to center		Flat rate.				

Source:

**DOWNTOWN PARKING MASTER PLAN**

CITY OF READING, PENNSYLVANIA



APPENDIX B

PROJECT # 14-3563.00

**Base Supply**

Block Zone	Public Lot	Public Garage	Private Lot	Private Garage	Off-Street Supply	On-Street Supply	Total Supply
1	0	0	200	0	200	33	233
2	0	0	46	0	46	21	67
3	0	0	49	0	49	38	87
4	0	0	111	0	111	21	132
5	0	300	10	0	310	20	330
6	0	434	0	0	434	9	443
7	0	0	24	0	24	13	37
8	0	500	9	0	509	3	512
9	0	0	50	0	50	3	53
10	20	0	6	0	26	8	34
11	0	0	109	0	109	0	109
12	0	0	16	0	16	18	34
13	0	0	18	0	18	15	33
14	0	0	158	0	158	18	176
15	0	0	85	0	85	30	115
16	0	0	20	0	20	25	45
17	0	0	28	0	28	22	50
18	0	0	12	0	12	14	26
19	0	0	38	0	38	17	55
20	0	0	39	0	39	19	58
21	0	635	0	0	635	0	635
22	0	0	49	0	49	0	49
23	0	0	101	0	101	7	108
24	0	0	0	0	0	30	30
25	0	0	3	0	3	33	36
26	0	0	20	0	20	21	41
27	0	0	89	0	89	27	116
28	0	0	101	0	101	26	127
29	0	0	75	0	75	22	97
30	0	0	42	0	42	24	66
31	0	0	18	0	18	16	34
32	0	0	84	0	84	7	91
33	0	1024	0	0	1,024	5	1,029
34	0	0	25	0	25	22	47
35	0	0	39	0	39	37	76
36	0	0	33	0	33	15	48
37	0	0	0	0	0	14	14
38	0	0	30	125	155	7	162
39	0	0	0	0	0	6	6
40	140	0	0	0	140	0	140
41	0	0	0	0	0	9	9
42	0	0	66	0	66	13	79
43	0	0	2	0	2	21	23
44	0	526	7	0	533	11	544
45	429	0	0	0	429	23	452
46	0	0	62	0	62	28	90
47	0	0	0	0	0	25	25
48	39	0	34	0	73	7	80
49	0	0	16	0	16	0	16
50	0	0	88	0	88	10	98
51	98	0	0	0	98	6	104
52	0	934	9	0	943	6	949
53	100	0	0	0	100	0	100
54	0	0	53	0	53	12	65
55	0	0	62	0	62	26	88
56	0	0	79	0	79	29	108
57	0	0	23	0	23	27	50
58	0	350	0	0	350	0	350
59	0	0	28	0	28	0	28
60	0	0	17	0	17	26	43
61	0	0	15	0	15	13	28
62	0	0	122	0	122	22	144
63	0	0	37	0	37	27	64
64	0	0	17	0	17	46	63
65	0	0	36	0	36	40	76
66	0	0	10	0	10	38	48
67	0	0	31	0	31	13	44
68	0	0	75	0	75	29	104
69	0	0	0	0	0	21	21
70	0	0	16	0	16	26	42
71	0	0	13	0	13	36	49
72	0	0	39	0	39	21	60
73	0	0	10	0	10	37	68
74	0	0	31	0	31	37	68
75	0	0	42	0	42	18	60
76	0	0	5	0	5	21	26
77	0	0	7	0	7	15	22
78	0	0	0	0	0	31	31
79	0	0	0	0	0	24	24
80	0	0	13	0	13	31	44
81	0	0	45	0	45	33	78
82	0	0	43	0	43	23	66
83	0	0	0	0	0	44	44
84	0	0	24	0	24	37	61
<b>Subtotal</b>	<b>826</b>	<b>4,703</b>	<b>2,914</b>	<b>125</b>	<b>8,568</b>	<b>1,618</b>	<b>10,186</b>
<b>Extended Study Area</b>							
IMAX	100	0	0	0	100	0	100
Garage	0	750	0	0	750	0	750
<b>Subtotal</b>	<b>100</b>	<b>750</b>	<b>0</b>	<b>0</b>	<b>850</b>	<b>0</b>	<b>850</b>
<b>Total</b>	<b>926</b>	<b>5,453</b>	<b>2,914</b>	<b>125</b>	<b>9,418</b>	<b>1,618</b>	<b>11,036</b>

**DOWNTOWN PARKING MASTER PLAN**

CITY OF READING, PENNSYLVANIA



APPENDIX B

PROJECT # 14-3563.00

Block # Zone	Weekday Effective Supply												On-Street Supply	Effective Supply Factor	On Street Effective Supply	Total Effective Supply
	Off-Street				On-Street				Street							
	Public Supply	Effective Supply Factor	Public Effective Supply	Private Effective Supply	Public Supply	Effective Supply Factor	Private Supply	Private Effective Supply	Public Effective Supply	Private Effective Supply	Public Effective Supply	Private Effective Supply				
1	2	0	0.9	0	0.95	200	0	190	33	0.85	28	218				
2	2	0	0.9	0	0.95	46	0	44	21	0.85	18	62				
3	2	0	0.9	0	0.95	49	0	47	38	0.85	32	79				
4	3	0	0.9	0	0.95	111	0	105	21	0.85	18	123				
5	3	300	0.9	270	0.95	10	0	10	20	0.85	17	297				
6	2	434	0.9	391	0.95	0	0	0	9	0.85	8	399				
7	2	0	0.9	0	0.95	24	0	23	13	0.85	11	34				
8	2	500	0.9	450	0.95	9	0	9	3	0.85	3	462				
9	3	0	0.9	0	0.95	50	0	48	3	0.85	3	51				
10	3	20	0.9	18	0.95	6	0	6	8	0.85	7	31				
11	2	0	0.9	0	0.95	109	0	104	0	0.85	0	104				
12	2	0	0.9	0	0.95	16	0	15	18	0.85	15	30				
13	3	0	0.9	0	0.95	18	0	17	15	0.85	13	30				
14	2	0	0.9	0	0.95	158	0	150	18	0.85	15	165				
15	2	0	0.9	0	0.95	85	0	81	30	0.85	26	107				
16	3	0	0.9	0	0.95	20	0	19	25	0.85	21	40				
17	2	0	0.9	0	0.95	28	0	27	22	0.85	19	46				
18	2	0	0.9	0	0.95	12	0	11	14	0.85	12	23				
19	2	0	0.9	0	0.95	38	0	36	17	0.85	14	50				
20	2	0	0.9	0	0.95	39	0	37	19	0.85	16	53				
21	3	635	0.9	572	0.95	0	0	0	0	0.85	0	572				
22	3	0	0.9	0	0.95	49	0	47	0	0.85	0	47				
23	1	0	0.9	0	0.95	101	0	96	7	0.85	6	102				
24	1	0	0.9	0	0.95	0	0	0	30	0.85	26	26				
25	1	0	0.9	0	0.95	3	0	3	33	0.85	28	31				
26	1	0	0.9	0	0.95	20	0	19	21	0.85	18	37				
27	1	0	0.9	0	0.95	89	0	85	27	0.85	23	108				
28	1	0	0.9	0	0.95	101	0	96	26	0.85	22	118				
29	3	0	0.9	0	0.95	75	0	71	22	0.85	19	90				
30	3	0	0.9	0	0.95	42	0	40	24	0.85	20	60				
31	4	0	0.9	0	0.95	18	0	17	16	0.85	14	31				
32	4	0	0.9	0	0.95	84	0	80	7	0.85	6	86				
33	4	1,024	0.9	922	0.95	0	0	0	5	0.85	4	926				
34	4	0	0.9	0	0.95	25	0	24	22	0.85	19	43				
35	4	0	0.9	0	0.95	39	0	37	37	0.85	31	68				
36	3	0	0.9	0	0.95	33	0	31	15	0.85	13	44				
37	3	0	0.9	0	0.95	0	0	0	14	0.85	12	12				
38	4	0	0.9	0	0.95	155	0	147	7	0.85	6	153				
39	4	0	0.9	0	0.95	0	0	0	6	0.85	5	5				
40	4	140	0.9	126	0.95	0	0	0	0	0.85	0	126				
41	4	0	0.9	0	0.95	0	0	0	9	0.85	8	8				
42	4	0	0.9	0	0.95	66	0	63	13	0.85	11	74				
43	3	0	0.9	0	0.95	2	0	2	21	0.85	18	20				
44	4	526	0.9	473	0.95	7	0	7	11	0.85	9	489				
45	4	429	0.9	386	0.95	0	0	0	23	0.85	20	406				
46	4	0	0.9	0	0.95	62	0	59	28	0.85	24	83				
47	3	0	0.9	0	0.95	0	0	0	25	0.85	21	21				
48	4	39	0.9	35	0.95	34	0	32	7	0.85	6	73				
49	4	0	0.9	0	0.95	16	0	15	0	0.85	0	15				
50	4	0	0.9	0	0.95	88	0	84	10	0.85	9	93				
51	3	98	0.9	88	0.95	0	0	0	6	0.85	5	93				
52	4	934	0.9	841	0.95	9	0	9	6	0.85	5	855				
53	4	100	0.9	90	0.95	0	0	0	0	0.85	0	90				
54	4	0	0.9	0	0.95	53	0	50	12	0.85	10	60				
55	1	0	0.9	0	0.95	62	0	59	26	0.85	22	81				
56	1	0	0.9	0	0.95	79	0	75	29	0.85	25	100				
57	1	0	0.9	0	0.95	23	0	22	27	0.85	23	45				
58	1	350	0.9	315	0.95	0	0	0	0	0.85	0	315				
59	1	0	0.9	0	0.95	28	0	27	0	0.85	0	27				
60	1	0	0.9	0	0.95	17	0	16	26	0.85	22	38				
61	1	0	0.9	0	0.95	15	0	14	13	0.85	11	25				
62	5	0	0.9	0	0.95	122	0	116	22	0.85	19	135				
63	5	0	0.9	0	0.95	37	0	35	27	0.85	23	58				
64	5	0	0.9	0	0.95	17	0	16	46	0.85	39	55				
65	5	0	0.9	0	0.95	36	0	34	40	0.85	34	68				
66	5	0	0.9	0	0.95	10	0	10	38	0.85	32	42				
67	5	0	0.9	0	0.95	31	0	29	13	0.85	11	40				
68	5	0	0.9	0	0.95	75	0	71	29	0.85	25	96				
69	5	0	0.9	0	0.95	0	0	0	21	0.85	18	18				
70	5	0	0.9	0	0.95	16	0	15	26	0.85	22	37				
71	5	0	0.9	0	0.95	13	0	12	36	0.85	31	43				
72	5	0	0.9	0	0.95	39	0	37	21	0.85	18	55				
73	5	0	0.9	0	0.95	10	0	10	27	0.85	23	33				
74	5	0	0.9	0	0.95	31	0	29	37	0.85	31	60				
75	5	0	0.9	0	0.95	42	0	40	18	0.85	15	55				
76	5	0	0.9	0	0.95	5	0	5	21	0.85	18	23				
77	5	0	0.9	0	0.95	7	0	7	15	0.85	13	20				
78	5	0	0.9	0	0.95	0	0	0	31	0.85	26	26				
79	5	0	0.9	0	0.95	0	0	0	24	0.85	20	20				
80	5	0	0.9	0	0.95	13	0	12	31	0.85	26	38				
81	5	0	0.9	0	0.95	45	0	43	33	0.85	28	71				
82	5	0	0.9	0	0.95	43	0	41	23	0.85	20	61				
83	5	0	0.9	0	0.95	0	0	0	44	0.85	37	37				
84	5	0	0.9	0	0.95	24	0	23	37	0.85	31	54				
<b>Total</b>		<b>5,529</b>	<b>0.9</b>	<b>4,977</b>	<b>0.95</b>	<b>3,039</b>	<b>2,891</b>	<b>2,891</b>	<b>1,618</b>	<b>0.85</b>	<b>1,377</b>	<b>9,245</b>				
<b>Extended Study Area</b>																
IMAX		100	0.9	90	0.95	0	0	0	0	0.85	0	90				
Garage		750	0.9	675	0.95	0	0	0	0	0.85	0	675				
<b>Subtotal</b>		<b>850</b>	<b>0.9</b>	<b>765</b>	<b>0.95</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.85</b>	<b>0</b>	<b>765</b>				
<b>Total</b>		<b>6,379</b>	<b>0.9</b>	<b>5,742</b>	<b>0.95</b>	<b>3,039</b>	<b>2,891</b>	<b>2,891</b>	<b>1,618</b>	<b>0.85</b>	<b>1,377</b>	<b>10,010</b>				

**DOWNTOWN PARKING MASTER PLAN**

CITY OF READING, PENNSYLVANIA



APPENDIX B

PROJECT # 14-3563.00

Block	Zone	Inventory	Occupancy	Occupancy %
1	2	233	123	53%
2	2	67	39	58%
3	2	87	54	62%
4	3	132	73	55%
5	3	330	153	46%
6	2	443	113	26%
7	2	37	19	51%
8	2	512	262	51%
9	3	53	39	74%
10	3	34	17	50%
11	2	109	47	43%
12	2	34	15	44%
13	3	33	24	73%
14	2	176	104	59%
15	2	115	35	30%
16	3	45	22	49%
17	2	50	13	26%
18	2	26	8	31%
19	2	55	36	65%
20	2	58	18	31%
21	3	635	233	37%
22	3	49	34	69%
23	1	108	9	8%
24	1	30	13	43%
25	1	36	14	39%
26	1	41	18	44%
27	1	116	71	61%
28	1	127	37	29%
29	3	97	53	55%
30	3	66	28	42%
31	4	34	22	65%
32	4	91	80	88%
33	4	1,029	907	88%
34	4	47	21	45%
35	4	76	50	66%
36	3	48	36	75%
37	3	14	8	57%
38	4	162	124	77%
39	4	6	6	100%
40	4	140	107	76%
41	4	9	4	44%
42	4	79	80	101%
43	3	23	12	52%
44	4	544	482	89%
45	4	452	337	75%
46	4	90	56	62%
47	3	25	10	40%
48	4	80	37	46%
49	4	16	10	63%
50	4	98	48	49%
51	3	104	15	14%
52	4	949	707	74%
53	4	100	64	64%
54	4	65	42	65%
55	1	88	50	57%
56	1	108	69	64%
57	1	50	23	46%
58	1	350	39	11%
59	1	28	21	75%
60	1	43	28	65%
61	1	28	16	57%
62	5	144	86	60%
63	5	64	37	58%
64	5	63	40	63%
65	5	76	54	71%
66	5	48	31	65%
67	5	44	0	0%
68	5	104	39	38%
69	5	21	6	29%
70	5	42	18	43%
71	5	49	23	47%
72	5	60	21	35%
73	5	37	21	57%
74	5	68	27	40%
75	5	60	43	72%
76	5	26	12	46%
77	5	22	22	100%
78	5	31	19	61%
79	5	24	16	67%
80	5	44	33	75%
81	5	78	26	33%
82	5	66	24	36%
83	5	44	35	80%
84	5	61	42	69%
Subtotal		10,186	5,910	58%
Extended Study Area				
IMAX		100	59	59%
Garage		750	465	62%
Subtotal		850	524	62%
<b>Total</b>		<b>11,036</b>	<b>6,434</b>	<b>58%</b>