FINAL REPORT

City of Worcester Parking System Assessment

City of Worcester Department of Public Works & Parks

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Parking, Transit & Downtown Development Consulting

This assessment includes a thorough evaluation of Worcester's paid public parking system including a review of its on- and off-street public parking facilities, programs, supporting policies and services as well as organizational structure and governance, service delivery, use of equipment and technology, rates and fees. The intended purpose was not to conduct a traditional supply and demand study but to focus on efficient management of the public parking system to improve parking performance, competitiveness and financial stability.

This effort follows a 2010 feasibility study of monetizing Worcester's public parking system through a potential long-term lease/concession contract with a private investor/operator. The City considered long-term leasing its parking assets due in part to the relatively weak financial position of the public parking system. In return for payments to the City, the concession agreement would have required guaranteed parking rate increases, technology upgrades and other concessions. Ultimately, the City decided not to pursue monetization but instead explore ways on its own to maximize value and use of its parking assets to improve its financial position.

Summary Findings

Worcester's public parking system has run substantial deficits two of the past three years, and the only thing keeping it from a consecutive 3-year deficit was a one-time, pre-paid 5-year lease payment at one of its parking garages. A review of system-wide revenues and expenditures shows that even though the City has managed to keep operating costs at a lower range found in municipal parking facilities nationally, debt service remains high and parking revenues are insufficient to prevent deficit conditions. The situation would be even worse if the City was to budget for facility renewal and replacement costs associated with long-term capital improvements, which is a recommended practice.

Parking revenues have not kept pace with expenditures, debt obligations and market conditions, which has created the structural deficit. Three contributing factors are that:

1. Worcester's parking rates are well below those found in other New England municipalities of similar size and some of its parking facilities are below market rates when compared to nearby/competing private parking facilities.

2. The City has many long-term, large-block facility agreements with private organizations and public institutions for heavily discounted or free parking, which has significantly reduced base operating revenues from regular day-to-day employee parkers.

3. Parking Enterprise Funds like Worcester's generally dedicate all user fees, fines and revenues to the short- and long-term needs of its parking system – only returning surplus revenues to its General Fund after these needs are met. Worcester's parking citation revenue is separated from the on- and off-street parking funds and a significant amount is returned to the City's General Fund - despite the aforementioned operational deficits, lack of capital reserve funding, and need for investment in technology.

Meter technology, like pricing, has not kept pace with the marketplace. 40% of all coin-only parking meters in service are spring-loaded mechanical units dating back to the 1960s. "Honor boxes" for parking payments are still in use at some surface lots. This outdated equipment results in higher maintenance costs and theft potential, and lower revenues, reliability and customer satisfaction. By not providing a credit card option for all on- and off-street parking facilities, the duration of some customer visits are based not on how long customers would like to stay but on how much change is in their pocket. Ultimately, this leads to higher customer citations, frustration and dissatisfaction.

The system assessment also identified a regulatory and pricing environment that is inconsistent and unnecessarily complex. For example, there are at least six different on-street time-regulated parking spaces (10-min., 15-min., 30-min, 1-hour, 2-hour and 4-hour) and five different hourly meter rates ($0.20, $0.25, $0.40, $0.50 and $1.00) downtown. Differing rates, posted time limits and hours of operations were observed at meters on the same street and sometimes adjacent to one another. The variability of these conditions, and at times the lack of adequate postings of these regulations, can confuse and discourage the customer, and hamper enforcement efforts, which were found to be significantly lower than in comparably sized cities.

Important to maintaining current parking rates, meter technology and a responsive regulatory environment are establishing effective organizational structure and governance. In Worcester, the delivery of parking services, which involves multiple City Departments and Divisions, is indirect and somewhat fractionated. Decisions related to on- and off-street parking pricing and regulations are in effect made by two different boards with different legislative processes. From the staffing side, there is no one parking professional directing and leading the program. This lack of single-point program management responsibility and diffuse organizational/decision-making structure, which is typically found in smaller cities, has led to a more passive/reactive parking management system, where over time, regulations, pricing/fees, signage, and even equipment technology have become outdated.

While the overall public and private parking supply appears to be sufficient for current demand, parking utilization imbalances were observed. Two of the four public parking garages (Federal Plaza and Pearl-Elm) downtown are well utilized weekdays and carry substantial waiting lists for monthly permit parking. Meanwhile, the other two garages (Major Taylor and Union Station) are significantly underutilized. The on-street system was observed to have areas of significant over- and under use. Many street segments on either side of Main Street downtown were observed to be at or exceeding effective capacity during weekday peak periods, while streets north and west of the downtown core remained in some cases virtually empty. Outdated pricing and time-limit regulations contribute to these imbalances.

Summary Recommendations

The City is at a critical crossroads in the evolution of its public parking system and continuing down the current path is not an option. It can no longer afford to passively manage its parking system with deeply subsidized rates and agreements. The City has invested millions of dollars in structured parking that should provide substantial long-term economic dividends to its commercial districts assuming appropriate utilization. Worcester's valuable public parking supply exists within a very competitive market of private facilities competing on location, service and price. The City system therefore must compete and take a more proactive role in managing and maximizing the use and value of its assets.

That means hiring a lead parking professional and restructuring to improve responsiveness and decision-making. It means regularly monitoring the use of the entire public and private parking supply and setting parking rates, regulations and policies not only to reflect market conditions, but to balance use of its assets and cover costs. It means investing in current parking technology to allow real-time monitoring of its parking supply while providing customers and businesses multiple payment options, timely information and incentives. It means working to retain and expand the customer base every day through marketing, promotion, education and improved wayfinding.

In addition to updating current parking technology, equipment and signage, the City must invest in long-term facility renewal, rehabilitation and when needed, expansion. It must provide appropriate enforcement and security levels by leveraging private sector resources where possible through technology enhancements and specialty service contracting. Ultimately, these needed investments must be funded along with all parking system expenditures and obligations. A restructured Enterprise Fund should dedicate all parking revenues including those from citations to this effort before excess revenues are returned to the General Fund.

Introduction and Purpose

During the most recent recession, many cities across the U.S. considered transferring certain public assets and services to the private sector via long-term lease or sale in return for upfront cash payments - usually to close budget gaps. Public parking systems have been a major part of this trend where long-term public-private lease agreements of assets have actually moved forward in cities like Chicago, Pittsburgh and Indianapolis. Concessionaires have sought to cash-in on these parking assets and related services by improving asset value & profitability through modernization, technological upgrades, competitive service contracting and by instituting demand-based pricing at market rates. However, these concessionaire agreements are quite complex and not without long-term economic impacts and pitfalls – politically and otherwise.

In 2010, the City of Worcester completed a feasibility review of monetizing the parking system through potential long-term lease/concession contracts under a public-private partnership arrangement. Ultimately, the City decided not to pursue monetization but instead explore ways on its own to maximize utilization and value of its assets and significantly improve the overall operational efficiency and financial performance of its parking system. This is the stated purpose for this Parking System Assessment.

The City of Worcester Parking System Assessment includes six major tasks:

Task I: Inventory Current Parking System
Task II: Assess Parking System Performance
Task III: Assess Current Organizational Structure
Task IV: Assess the Competitive Environment for Off-Street Parking
Task V: Identify Best Management Practices
Task VI: Recommend Improvements and an Implementation Plan

The parking assessment is not a traditional supply and demand study but one that focuses on efficient management of the parking system including ways to increase parking performance and income, reduce operational costs, and improve customer service. It will include a review of on- and off-street public parking facilities, programs, supporting policies and services as well as service delivery, use of equipment and technology, rates and fees.

Performance was assessed in part based on financial metrics and benchmarking with comparable cities. Best management practices and alternative business models were used to assess organizational structure. The competitive environment was assessed based on a thorough review of private parking facilities in Worcester open to the public. Finally, a recommended improvement and implementation plan was developed to include tasks, assignments, estimated costs, revenue enhancements and schedule.

Study Area

The study area consists primarily of the Central Business area as shown in Figure 1, but includes all of the smaller commercial districts where parking meters and lots are located. There are approximately 19,000[1] public and private parking spaces in the study area, however, the study focus will be on the metered, time-regulated and structured public parking within this area. The study area map is depicted in Figure 1.

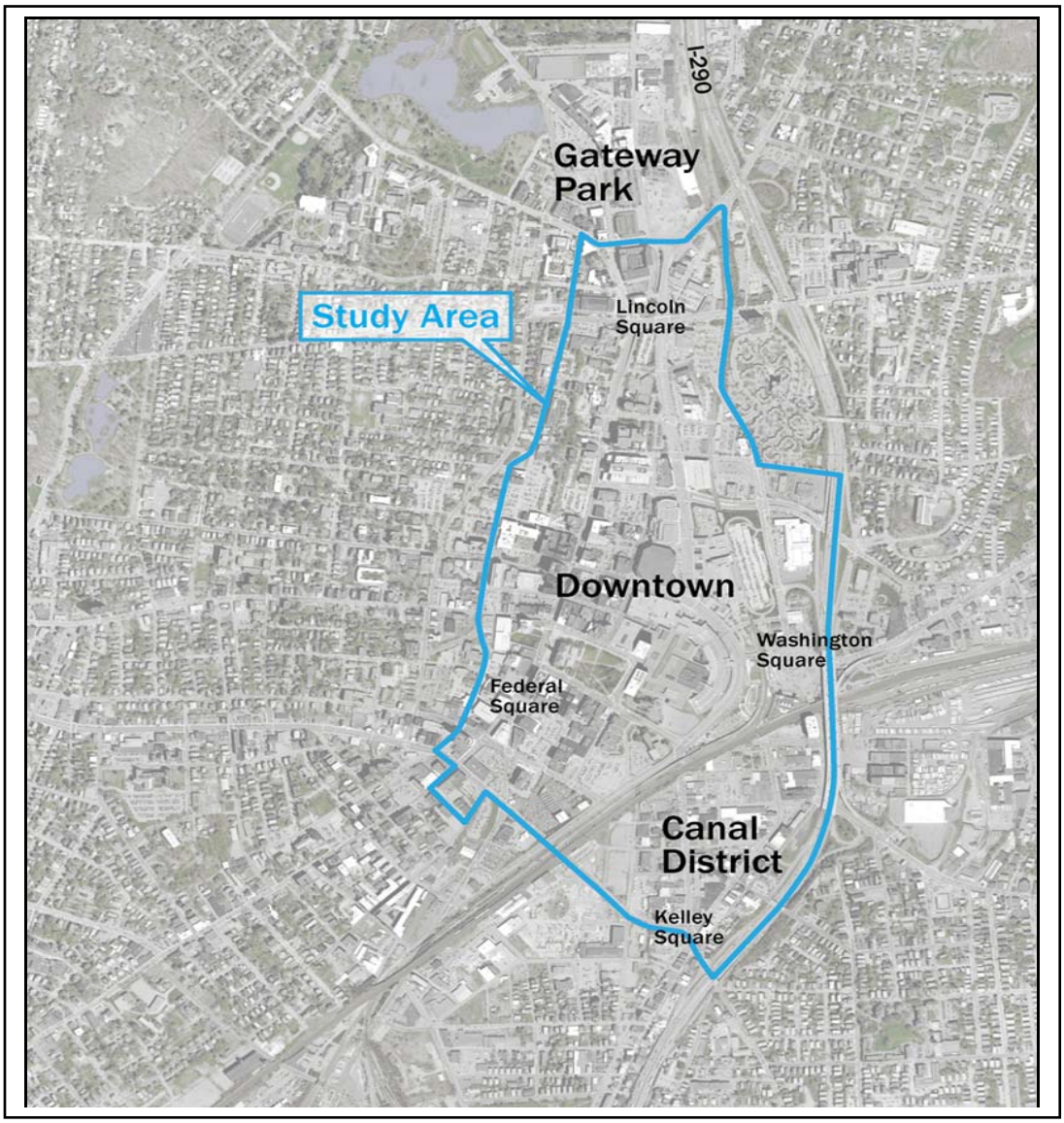

Figure 1: Study Area Map

[1] *Central Business District Parking Study*, Worcester, MA, VHB, November 2004.

Previous Parking Studies

There have been three major parking studies conducted over the past ten years that relate directly to this project – the *Central Business District Parking Study*, Vanasse Hangen Brustlin (VHB), November 2004, the *Downtown Parking Garage Study*, Desman Associates, October 2007, and the *Worcester Parking System Concession/Lease Report*, Infrastructure Management Group (IMG), April 2010. A brief description of the purpose and findings of each study is provided below.

Central Business District Parking Study, VHB, November 2004 – included a detailed study and analysis of current and anticipated future parking conditions with the Worcester CBD. Parking inventory and utilization surveys conducted by the City in 1999 were updated and expanded and the potential impact of future development and infrastructure changes on the current parking system was assessed.

The study concluded that overall there was an adequate supply of parking to accommodate the existing and projected future demand. The peak level utilization for the CBD was determined to be 61% for the current condition indicating that there were no major issues regarding parking availability within the CBD as a whole[2]. The study did identify transitional development areas where parking supply and demand would change with redevelopment such as the new County Courthouse location, the Worcester Common Outlets site and Union Station.

Downtown Parking Garage Study, Desman Associates, October 2007 – the study's purpose was to provide preliminary and long-term recommendations for the operation of the City's four municipal parking garages that included the Union Station Garage although it had yet to be built. It was determined that there was ample availability for parking in the Federal Plaza and Major Taylor garages but the Pearl Street garage was exceeding effective capacity during several time periods.

With regard to garage recommendations, the consultant determined that:

- monthly fees and short-term hourly rates in the garage were appropriate but long-term hourly rates should be increased;
- cashiering in the garages should be eliminated in favor of a more automated and efficient pay-on-foot or pay-in-lane system (which has since been done); and

[2] Study was conducted prior to the construction and opening of the Union Station Parking Garage.

- existing corporate and business agreements that reserve large blocks of discounted parking in downtown facilities should be allowed to expire in favor of individual user agreements.

The study also included a facility conditions assessment.

With regard to management and operations, it was recommended that the City should consolidate all parking services under a newly established Parking Authority to increase operational efficiency, accountability and focus. The Parking Authority would be headed up by a Parking Director accountable for the entire parking operation. All revenues generated through parking operations would remain with the Authority to support short- and long-term on-street and off-street operational and capital needs and to establish a rehabilitation and replacement fund for the parking garages – a fund that does not currently exist. Parking payments to the General Fund would be eliminated over time so that the Authority and parking system was self-supported solely through user fees.

Worcester Parking System Concession/Lease Report, IMG, April 2010 – included an analysis and valuation of the City's parking assets and feasibility review for monetizing these assets through potential long-term lease/concession contracts under a public-private partnership. The concession review identified that in general, Worcester's parking rates are well below comparable cities, based on 2009 averages, which negatively impacts the underlying value of the system. Based on assumptions that parking rates and enforcement of meter/time zones would increase significantly over time, the consultant assessed the value of the parking concession at between $30M and $41M.

The report detailed the terms of a potential Concession, where the Concessionaire, in return for a single upfront payment, would assume all costs, expenses and liabilities from operations including responsibility for capital costs, long-term facility maintenance and replacement if necessary. The Concessionaire would staff all parking operations including enforcement of meters and off-street parking. The Concessionaire would also receive all parking revenues including meter citations derived from operations. The City would license the management and operation of on-street metered parking and issue a long-term lease for the lots and garages over a period of up to 75 years.

The City of Worcester's CBD is served by thousands of curbed parking spaces and numerous large off-street public and private surface parking lots and garages. This assessment will primarily focus on the City's revenue producing on-street and off-street parking assets within the Central Business Districts but will also describe key privately-owned parking lots and garages that provide general-purpose public parking. Facility rates, regulations, programs and contract parking arrangements are also described.

On-Street Metered Parking

There are approximately 1,160 parking meters in the study area with 30-minute, 1-hour, 2-hour and 4-hour time limits and meter fees set at 20, 25, 40 and 50 cents/hour or $1.00/hour. The 30-minute meters are set at 25 cents/half-hour. Generally, the $1.00/hour rates are set on main commercial streets with lower rates found on some commercial side streets and peripheral downtown streets. The $1.00/hour rate has been in effect for about 10 years. It is unknown how long the lower-rate meters have been in effect. Meters are in effect as posted either Mondays through Saturdays 8 a.m. to 6 p.m. or Mondays through Fridays 8 a.m. to 8 p.m. Expired meter and overtime parking violations are set at $15.00 per occurrence. The on-street metered parking areas in the downtown core are depicted in Figure 2: Municipal Public Parking Facilities Map on page 18.

With regard to parking meter equipment, the City uses POM Model N meters ranging in age from 5 to 50 years. Approximately 60% of the meters are digital electronic, battery-operated meters in good condition installed over the last 5 to 10 years. The remaining 40% are spring-loaded, mechanical meters in fair-to-good condition installed between 1960 and 1995. This technology has been phased out of most cities.

In 2012, the City conducted an on-street trial near City Hall of 30 solar powered, credit-card enabled, single-space electronic parking meters manufactured by the IPS Corporation. The City monitored and compared the customer service response, utilization and revenues/costs of the new technology meters and management software with the existing equipment. A State-funded streetscape project to rehabilitate Green, Millbury and Water Streets included the purchase and installation of 93 new credit card meters to replace older equipment there.

With regard to on-street parking programs, the City does not offer any parking permits, discounted user rates or validation for metered parking. There is a very large-scale Resident Parking Permit (RPP) Program, however it is only offered in non-metered areas. RPPs are $10

per vehicle per year and visitor passes (one per household) are $5 per year. Private valet parking from metered and unmetered parking spaces downtown is allowed. The program is very informal with no permits or fees required of the valet company. It is estimated that there are about 10 valet locations currently in operation.

Off-Street Public Parking Lots

The Off-Street Parking Program includes 13 open-air parking lots managed by the City for a combined total of approximately 900 parking spaces. Six of the City-managed municipal parking lots are dedicated for general public use and the other seven are better defined as all day commuter and employee parking lots located along the commuter rail line and I-290. Currently, four of the seven commuter lots located along I-290 lots are closed to drive utilization of the Union Station Garage.

There are also numerous small and large privately-owned surface parking lots providing public parking that are dispersed throughout the downtown. These lots provide flat-rate daily, special event and/or monthly permit parking. A rate survey was conducted for a sample number of the larger facilities and the findings are summarized below. However, the facility managers and owners were not always willing or able to provide the facility information requested.

Municipal Parking Lots

The municipal parking lots for general public use have 3-hour and/or 10-hour parking time limits, Mondays through Saturdays, 7 a.m. to 2 a.m. Since 2005, the rates in the lots have been increasing 5 cents per year and are currently set at $0.70/hour. Certain lots offer monthly permit parking at varying rates. There are a total of approximately 418 hourly paid parking spaces in these lots controlled by single-space electronic POM parking meters. All of the City-managed lots listed are owned by the City with the exception of the Brittan Square lot, which is owned by the University of Massachusetts and leased to the City. No overnight parking is allowed in any of the lots. A summary description of each lot is provided below.

- Francis J. McGrath Lot – located at 40 Salem St. behind the Worcester Public Library, this lot contains 289 total spaces with 184 posted 3-hr.; 99 10-hr.; and 6 handicapped. Monthly permits are available at $59.00/month and currently there are only 4 permit holders. City employees who sign up for payroll deduction are offered a discounted monthly rate of $36.00. There are 52 city employee permit holders. In general, while the lot rarely fills, it is very well utilized by both transient users and monthly permit

holders. Because of its size and proximity to downtown, it has periodically been included in various proposed developments over the years. Meter rates on-street within two blocks of the McGrath lot range from $1.00/hour on Myrtle St. to $0.20/hour on Portland and Federal Streets. The McGrath lot is depicted in Figure 2: Municipal Public Parking Facilities Map on page 18.

- General Pickett Lot – located at 45 Green St. adjacent to the Railroad Bridge, this lot has 70 parking spaces – 11 10-hour; 56 reserved for permits and 3 for handicapped parking. Regular permits are $35/month and $21/month for City employees. There are currently a total of 55 permit holders – 49 City employees and 6 local businesses. The lot is well used during daytime work hours and in the evenings Thursdays through Saturdays after parking enforcement ends. New credit-card enabled meters will be installed as part of a streetscape project on the adjacent Green St. in 2012. The on-street rate will be set at $1.00/hour.

- Green Street Lot – located at 96 Green St. next to Center Bar and Grille, this lot has a total of 29 parking spaces with 27 3-hour spaces and 2 handicapped spaces. Four of the spaces are rented to the adjoining restaurant for $100/month to allow for outdoor dining between April and October each year. This lot is significantly underutilized. During the weekday lunchtime hours it may approach 50% utilization but otherwise is close to empty. As stated above, new credit-card enabled meters were installed on Green St. in 2012 and priced at $1.00/hour.

- Millbury Street Lot – located at 51 Millbury St. next to the Emerald Isle Restaurant, this lot has a total of 48 parking spaces with 45 10-hour spaces and 3 handicapped spaces. The metered spaces are poorly utilized during the day. The lot is well utilized Thursday through Sunday evenings due to tavern businesses in the area. New credit-card enabled meters were installed on the adjacent Millbury St. in 2012 and priced at $1.00/hour.

- Water Street Lot – located at 85 Water Street across from the Broadway Restaurant, this lot has 39 total parking spaces with 37 10-hour spaces and 2 handicapped spaces. New credit-card enabled meters were installed on the adjacent Water Street in 2012 and priced at $1.00/hour.

- Brittan Square Lot – located at 265 Lincoln Street, this metered lot has 13 total parking spaces one of which is a non-metered handicapped space and is posted as a "Temporary Municipal Parking Lot". The adjacent Lincoln Street meters are set at $0.25/hour.

Commuter Parking Lots

The commuter parking lots provide primarily employee parking along the commuter rail line and I-290. The parking fee in these lots is $3/day and payment is made via "honor boxes" located in the lots. The posted paid parking hours are 5 a.m. to 3 a.m. Mondays through Saturdays. No overnight parking is allowed. The two commuter rail parking lots listed below are owned by the MBTA and operated by the City. The remainder of the lots located along and under I-290 are owned by the State and operated by the City. A summary description of each lot is provided below.

- AMTRAK Lot – located at 25 Shrewsbury St. at the top of the ramp along the commuter rail line, this lot has a total of 44 parking spaces with 22 dedicated to all day parkers, 14 reserved for AMTRAK and 8 handicapped parking spaces. The lot is well utilized usually near full capacity during the work week
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- MBTA Lot – also located at 25 Shrewsbury St. - the lower parking area left of the entrance, this lot has a total of 88 all-day parking spaces. The lot is well utilized usually near full capacity during the work week.

- Expressway Area A Lot – also located at 25 Shrewsbury St. – right of the entrance behind Pat's Service, this lot has 56 all-day parking spaces but is currently closed.

- Expressway Area B Lot – located at 25 Grafton St. at the intersection of Grafton St. and Franklin St., this lot has 70 all-day parking spaces but is currently closed with the exception of evening hours when some space is made available to local restaurants for free parking.

- Expressway Area C Lot – located at 39 Grafton St. near the Kenmore Diner, this lot has 68 total parking spaces available – 56 all-day and 12 hourly spaces (70 cents/hour).

- Expressway Area D, E and F Lots – located at 65/67 Grafton St., lots D and E have a total of 63 all-day paved parking spaces and Lot F is currently an unpaved lot. These lots may end up providing employee parking for new tenants of the Osgood Building but they are all currently closed with the exception of evening hours when some space is made available to local restaurants for free parking.

Private Parking Lots for Public Use

The private surface parking lots for public use listed below are generally either controlled by an attendant/cashier or are unattended lots with permit parking only. Most cashiered lots do not offer credit card payment and have rate daily and special event parking. Special event parking rates generally track closely to what is charged in the municipal garages. Daily flat rate fees vary somewhat by location and monthly permit fees are much higher within the Main Street corridor than the Major Taylor Boulevard corridor.

- Major Taylor Boulevard/Thomas Street Lots – located adjacent to Honey Farms and Major Taylor Parking Garage, these two lots with a total of approximately 125 spaces, are cash-only, cashiered (attendant) lots offering a $7/day flat rate fee and a variable $10 to $25 flat rate special event fee depending on the DCU event. Monthly permits are offered at $60/month.

- 100 MLK Jr. Boulevard Lot – located adjacent to the Major Taylor Parking Garage and near the corner of MLK Jr. Blvd. and Summer St. with good access to and from I-290, this cashiered lot with approximately 350 spaces, offers a $10/day flat rate fee and up to $25 for special events at the DCU. Monthly permits are offered at $75.00.

- Park Plaza Lot – located at the intersection of Main/Chatham St., this unattended lot has approximately 35 spaces and permit parking is offered at $120/month.

- Chestnut Street Lot – located on Chestnut between Pleasant and Pearl Street in close proximity to the Pearl Street Parking Garage, this unattended lot with approximately 65 spaces offers monthly permits at $120/month.

- Courthouse Lots – located on either side of Main St. adjacent to the Worcester County Courthouse, both lots are cashiered and accept credit cards. The lot on the west side of Main St. has approximately 215 spaces and offers a flat daily rate of $15 and a monthly permit rate of $130. The lot on the east side of Main St. directly adjacent to the Courthouse has approximately 75 spaces and offers a flat daily rate of $10 and a monthly permit rate of $88. However, there is a waiting list for permits in the east-side lot. Special event parking rates vary by event routinely up to $25.

- Exchange Street Lot – located east of Main St. and adjacent to the Courthouse Lot listed above, this cashiered lot with approximately 200 spaces, offers a flat daily rate of $10 and a monthly permit rate of $100 although as of August 2012 only monthly permit spaces were still available. Special event parking rates vary by event routinely up to $25.

Public Parking Garages

The downtown is served by four (4) municipally-owned and operated parking garages and several other privately-owned parking garages offering public parking. A summary description of these facilities by category, including existing rates, is provided below. There is also a listing provided by municipal facility of discounted large block agreements made in conjunction with private development projects downtown. A more detailed summary of each agreement is provided in Exhibit A of the Appendix.

Municipal Public Parking Garages

The Municipal Off-Street Public Parking Program includes four (4) parking garages with a total of 2,813 parking spaces as follows:

- Federal Plaza Garage (511 spaces)
- Major Taylor Garage (983 spaces)
- Pearl-Elm Garage (819 spaces)
- Union Station Garage (500 spaces)

All facilities charge $2 for the first hour and $1 each hour thereafter up to a daily maximum rate that varies by facility. Overnight rates are generally set at $5.00. There are currently a total of 2,158 monthly permit holders in the four garages and permit types & rates vary. Table 1 below shows the total spaces, current permits sold and waiting list, regular permit rate and maximum daily rate for each facility.

Table 1: 2012 Worcester Municipal Parking Garage Monthly Permits/Rates

Municipal Garage	Address	Total Spaces	Monthly Permits	Waiting List	Reg. Permit Rate*	Max Daily Rate**
Federal Plaza	570 Main St.	511	477	30	$75.00	$7.25
Major Taylor	30 Major Taylor Blvd.	983	714	None	$80.00	$9.00
Pearl-Elm	20 Pearl St.	819	650	284	$109.00	$8.25
Union Station	225 Franklin St.	500	317	None	$100.00	$9.00
TOTALS		2,813	2,158	314		

* Monthly permit rates charged through discounted large block parking agreements may differ. See Exhibit A of the Appendix.

**The City's Off-Street Parking Board has approved an increase in maximum daily rates for each facility of 25 cents/year through 2016.

The locations of the four municipal parking garages are shown below in Figure 2: Municipal Public Parking Facilities Map.

Federal Plaza Garage

Built in 1970, the Federal Plaza Garage is located at 570 Main Street opposite the Federal Building with direct access from Main Street and also from High Street. The 511-space, 7-level facility serves primarily downtown office, entertainment and retail uses. The garage is open 6:30 a.m. to Midnight Mondays through Saturdays and 8 a.m. to Midnight on Sundays. The parking access and revenue control system, manufactured by SKIDATA is relatively new having been installed in 2010. There are two credit card enabled pay-on-foot payment stations in the first floor lobby as well as a pay-in-lane option on exit.

In addition to the regular individual monthly parking permit fee of $75.00, there are four discounted large block agreements between the City and the area businesses listed below.

- Small Business Service Bureau (SBSB)
- 370 Main Street Association
- Burwick Building Tenants
- Hanover Theatre

There are a total of 477 monthly permits currently issued at Federal Plaza: 68 individual monthly permits; 200 to the SBSB; 170 to 370 Main Street Association; 0 to Burwick Building Tenants; and 39 to City of Worcester employees.

Major Taylor Garage

Built and opened by the Worcester Redevelopment Authority in 2001, the Major Taylor Garage is located on 30 Major Taylor Boulevard opposite the Hilton Gardens Inn in close proximity to the DCU Center with entrances on Central Streets and Thomas Streets. The 983-space, 7-level facility is open 24 hours/day, 7 days/week and is the only municipal garage of the four that charges regular hourly rates after 5 p.m. (the others charge a $1 flat rate after 5 p.m.), reflecting night entertainment demand in the area. On DCU event nights, garage management in coordination with DCU Center management sets the event rate.

A 2007 parking conditions assessment conducted by Desman Associates classified the garage as in overall good condition. In recent years the City replaced original joint sealant as recommended in the conditions assessment. The parking access and revenue control system in the garage, manufactured by Federal APD was installed in 2008. There are two credit card enabled pay-on-foot payment stations in the first floor lobby.

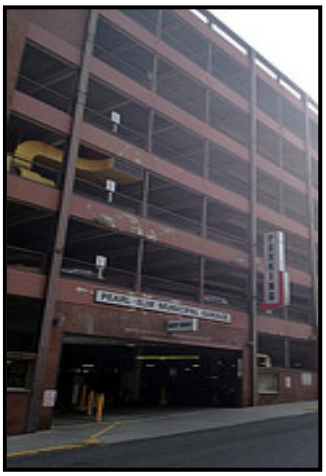
In addition to the regular individual monthly parking permit offered at $80.00, there are several discounted large block agreements between the City and the following area businesses:

- Hilton Gardens Inn
- Massachusetts College of Pharmacy and Allied Health Sciences (MCPAHS)
- Worcester Sharks Hockey
- Unites State Postal Service (USPS)
- SMG (DCU Management Company)

There are a total of 714 monthly permits currently issued at Major Taylor: 54 individual monthly permits; 245 to the USPS; 120 to the MCPAHS; 200 to the Hilton Gardens Inn; 50 to the SMG/DCU; and 45 to the Worcester Sharks.

Pearl-Elm Street Garage

Built in 1949 with a major expansion in 1960 and a subsequent two-floor expansion in 1991, the Pearl-Elm Street Garage is located at 20 Pearl Street directly off Main Street behind the Slater Building and has entrances on Pearl and Elm Streets. The 819-space, 8-floor facility is open from 6:30 a.m. to 10 p.m. Mondays through Saturdays. The parking access and revenue control system, manufactured by SKIDATA is relatively new having been installed in 2010. There are three pay-on-foot payment stations - two in the first floor waiting room where one only accepts credit cards and the other accepts cash and credit, and one station on the second level Elm Street side near the entrance/exit that accepts cash and credit.



In addition to the regular individual monthly parking permit offered at $109.00, there are two discounted large block agreements between the City and area businesses listed below.

- 370 Main Street Association
- One Chestnut Place

There are a total of 650 monthly permits currently issued at Pearl-Elm: 205 individual monthly permits; 325 to One Chestnut Place; and 120 to 370 Main Street Association.

Union Station Garage

Built and opened by the Worcester Redevelopment Authority in 2008 as part of the Union Station Redevelopment Project, the Union Station Garage is located at 225 Franklin Street with entrance on Franklin Street. The 500-space, 6-floor facility is open 24 hours/day, 7 days/week. Because the garage was funded in part through the Federal Transit Administration, the City must reserve by agreement 250 of the 500 spaces for commuter parking. Therefore the City will not lease more than 250 non-commuter parking spaces. The parking access and revenue control system, manufactured by Federal APD and installed with the opening of the garage. There are two credit card enabled pay-on-foot payment stations in the first floor lobby.

In addition to the regular individual monthly parking permit offered at $100.00, there are several discounted large block agreements between the City and area businesses listed below.

- Massachusetts College of Pharmacy and Allied Health Sciences (MCPAHS)
- Central Massachusetts Regional Planning Commission (Union Station tenant)
- Vanasse Hangen Brustlin (VHB), Inc. (Union Station tenant)

There are a total of 317 monthly permits currently issued at the Union Station Garage: one individual monthly permit; 62 to Union Station tenants; 100 to MCPAHS; and 154 to MBTA commuters.

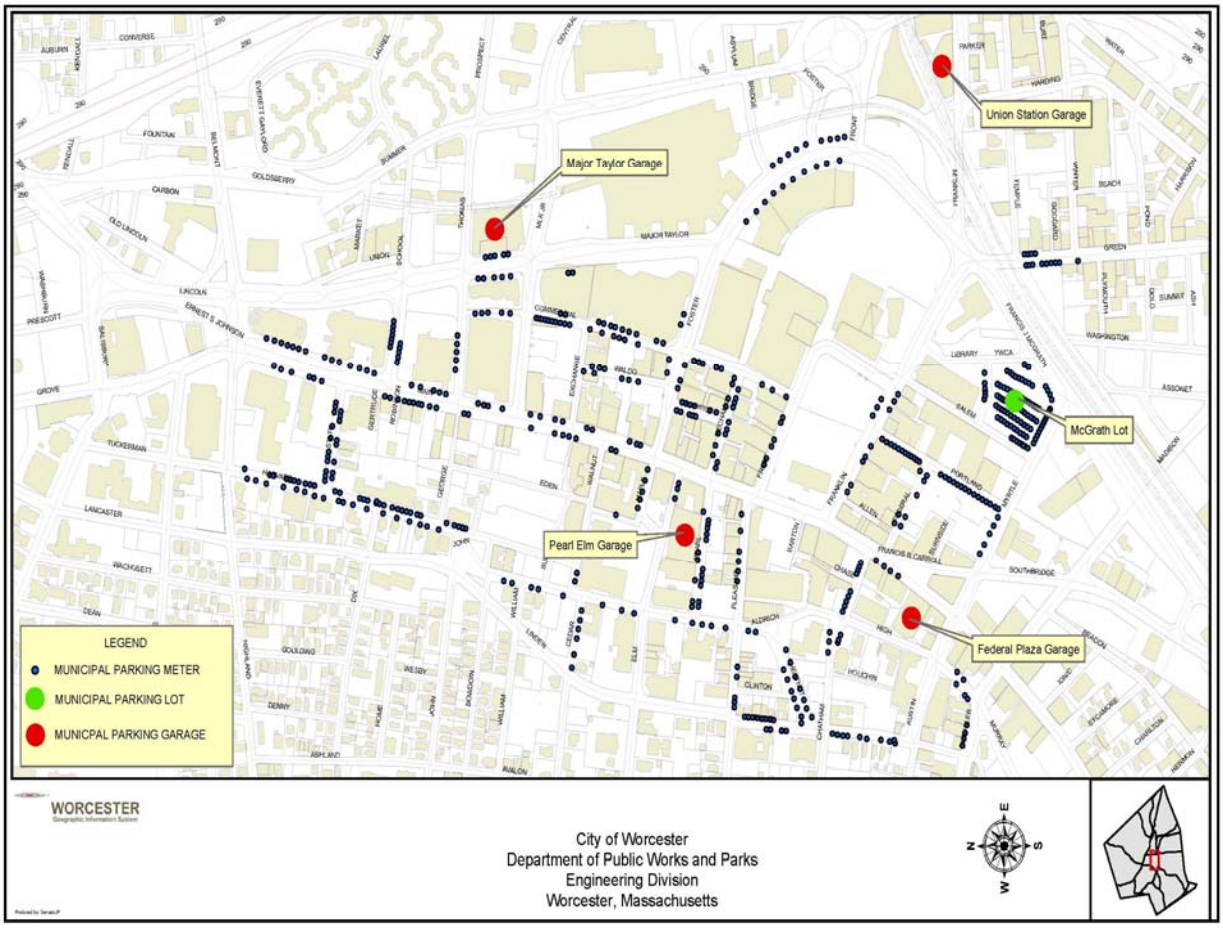


Figure 2: Municipal Public Parking Facilities Map

Privately-Owned Parking Garages for Public Use

Several private parking garages are open for public use in the downtown. A rate survey was conducted for a sample number of the larger facilities and the findings are summarized below. In general, hourly rates track closely to those in the municipal garages but monthly permit rates are higher.

- Commercial Street Parking Garage – located on Commercial Street between Foster and Mechanic Streets across from the DCU Center and adjacent to the City Square Project, this cashiered facility, run by Central Parking Services has the same hourly rates as the City but monthly permits are available at $120.

- Franklin Square Parking Garage – located at the intersection of Austin and Murray Streets and in very close proximity to the Federal Plaza Garage, this multi-level, 300-space self-park facility offers a $2/hour flat rate up to a $10 maximum. Permits are $130/month on the first floor and $85/month for floors 2 through 5. The facility closes at midnight but customers have 24/7 card access to open garage doors/gates. The garage management reports that there are 60 to 80 permit spaces currently available.

- Park Plaza Parking Garage – located west of Main Street on Chatham Street near the Federal Plaza Garage, this small self park facility advertises monthly permits at $120.

- Worcester Plaza Parking Garage – located at 40 Pleasant Street in close proximity to the Pearl Street Municipal Parking Garage, this cashiered facility run by Central Parking Services charges $2.00 for the first hour up to a $7 daily maximum. Monthly permits are available at $95/month. The 650-space facility largely serves employees and closes at 11 p.m. It is not open Sundays.

This section describes the City's current organizational structure as it relates to parking including a listing of individual positions and functional responsibilities within that structure. Outsourced operations and functions are also listed and described. Finally, a summary of parking system oversight and governance is included to gain a better understanding of how policies, rules and regulations are enacted.

Delivery of Parking Services

Parking services are primarily provided by three Divisions/Departments of the City – the Engineering Division of the Department of Public Works & Parks, the Treasurer and Collector of Taxes Division of the Finance Department, and the Traffic Division of the Police Department. A significant amount of coordination occurs between Divisions and Departments on a daily basis. Individual staff and contractor responsibilities are described below.

Engineering Division, Department of Public Works & Parks

The daily operation of the parking system is the responsibility of the Engineering Division of the City's Department of Public Works and Parks. This responsibility includes operations, maintenance, and enforcement of all on-street metered parking and off-street municipal parking lots and garages.

- Administration - the Assistant Commissioner is responsible for overall administration of the parking program. The Director of Engineering and his office are involved in the day-to-day operations of the program, which include operations and maintenance oversight responsibilities including accounts payable and receivable, oversight of the parking garage management contract and supervision of enforcement and maintenance teams. A Clerk position is responsible for deposits of checks for monthly parking in municipal lots. It is important to note that the majority of the Director of Engineering's time is devoted to engineering functions (non-parking) within the City.

- Enforcement – A full-time Supervisor of Parking Control Officers (PCOs) is responsible for the day-to-day operation of the enforcement team. Responsibilities include scheduling of personnel, scheduling of route assignments, supervising officers in the field, dealing with customer comments/complaints, managing handheld units, boots, vehicles, and other equipment and maintaining violation issuance reports. There are

eight (8) full-time PCOs – six on walking routes in the CBD and two in vehicles patrolling regulated parking just outside the downtown area.

PCOs are responsible for enforcing all parking metered and regulated areas, which includes enforcement of street sweeping, leaf collection, winter parking bans and the RPP program areas. PCOs also boot vehicles for non-payment of parking citations, enforce the abandon vehicle program and provide supplemental security services in the City owned parking garages. In general PCOs work Monday through Fridays 8:30 a.m. to 5:00 p.m. except when providing early shifts for street sweeping and other special details. They do not currently enforce on Saturdays and Sundays.

- Meter Maintenance (Contract) – Meter maintenance was contracted out to Republic Parking in 2012. Day-to-day maintenance and repair of all meter mechanisms and housings is included.

- Garage Operations (Contract) – Republic Parking is contracted by the City to manage and operate the four municipal parking garages open to the public. Under contract, Republic provides a full-time General Manager and Assistant General Manager, Night/Events Manager, Accountant/Auditor as well as customer service representatives and maintenance staff. Republic is paid a flat monthly fee that includes management, personnel, utilities and maintenance. Republic is in its last year of a 5 year contract.

- Surface Lot Maintenance (Contract and by others) – the City contracts out for sweeping and snow removal. Any other minor maintenance in the lots is done by either the Street Operations Division or the Meter Maintenance Technician.

- Signs and Pavement Markings – parking signs and pavement markings are the responsibility of the Engineering Division. Some signs and markings are done in house and some contracted out.

<u>Treasurer & Collector of Taxes Division, Finance Department</u>

The Treasurer & Collector of Taxes Division of the Finance Department is responsible for parking citation processing, adjudication and collection, issuance of residential parking permits, investigation of immobilized and abandoned vehicles, and customer service inquiries related to parking regulations. The Parking Administrator reports directly to the Treasurer and has an office at City Hall. The Parking Administrator is responsible for managing the citation

processing, noticing and collections process and contractor (currently Kelley and Ryan, Inc.) and acts as the hearing officer for all parking citation appeals and hearings. The Parking Administrator is in direct contact with PCOs on a daily basis with regard to parking appeals, vehicles eligible for boot and/or tow and other matters. The Parking Administrator also issues all resident parking permits. There are two customer service representatives within the Division that also assist with data process and customer inquiries.

The Finance Department is also responsible for overall financial monitoring and controls of parking revenue and procurement of parking-related supplies and services through its Purchasing Division.

Traffic Division, Police Department

The Police Department also enforces parking regulations 7 days per week including times when the civilian parking enforcement is not on duty, which includes nights and weekends. This is not a primary responsibility of the Department who over the past three years has issued on average 10.5% of all citations.

Revenue and Cost Centers

Just as areas within the parking function are separated between Departments, so are parking revenues. Off-street and on-street parking revenue is credited to individual cost centers within the parking program managed by the Engineering Division as is done in an Enterprise Fund. Parking citation revenue is deposited in the general fund, some of which is used to fund parking staffing and expenditures in the Treasurer's & Collector of Taxes Division.

Governance

On-street and off-street parking are governed very differently and the Boards and Committees that advise and approve actions differ as well. The following is a brief summary of the two processes.

On-Street Parking

On-street parking is governed by the City Council who for example, must approve the addition, elimination or relocation of a parking meter; the modification of a time restriction; or increase in an on-street parking rate. A citizen may petition the City Council directly for these changes

or a Department or Committee may also do so. The City's Traffic & Parking Committee advises the Council on matters related to parking locations and time restrictions while the City's Municipal Operations Committee advises on fees and charges. Any changes to rates, time limits or locations require an Ordinance change/approval.

Off-Street Parking

The municipal surface parking lots and garages are governed by the Off-Street Parking Board, which is an Executive Board. The Board is comprised of five residents (based on interest) responsible for off-street rate setting, hours of operation and approval of the off-street operational parking budget. Citizens can request a change by submitting a written request to the Board through the Department of Public Works & Parks. The Board posts the request on an agenda, takes testimony and then discusses the issue. Because the Board is an 'executive' board their vote is final. The one exception is legal agreements which must be approved by the City Manager.

Performance of the parking system is assessed in several ways. There is performance related to the efficient use of the parking assets within the system, performance related to service provided the customer, and financial performance. In this section, performance will be quantified where possible and later compared to similar size New England cities, industry standards and best management practices.

Parking Facilities Utilization Metrics

The last full supply and demand parking study was conducted by VHB in the 2004 *Central Business Parking Study*. At that time, it was determined that during the peak period, the overall parking supply was 61% utilized and that there was adequate parking supply to accommodate existing demand within the study area. Since then, several major developments have occurred including the opening of the new County Courthouse Downtown, Hanover Theatre and Union Station to name a few. Of course, the Worcester Common Outlets are now gone and the City Square project is in construction.

A limited off-street public parking utilization survey was conducted in July, 2012 by the City on two typical Thursdays (7/19 and 7/26) and Saturdays (7/21 and 7/28) when no major downtown events were underway. Based on the results of the survey, it was determined that the peak period for total use of the garages occurs at 11 a.m. weekdays when the total garage spaces were 65.5% utilized. On Saturdays, garage use is just a fraction of what it is during the week. The Saturday utilization of the garages peaked at 10 a.m. when 10.6% of the total garage spaces were utilized and both Federal Plaza and Pearl/Elm Garages were virtually empty.

Peak weekday utilization observed in the four garages is provided below. A garage is typically considered to be at effective capacity when it reaches 90% utilization.

Pearl-Elm Garage	87.3%
Federal Plaza Garage	75.3%
Major Taylor Garage	56.0%
Union Station Garage	43.4%

Use of the off-street public parking lots peaked at 10 a.m. weekdays (54.1%) and 2 p.m. Saturdays (24.6%). Overall, the AMTRAK and MBTA commuter lots were the highest used public lots during peak periods at 90.9% and 71.6% utilized, respectively. Use of the Area C lot peaked at 54.4%; the McGrath Lot at 61.2% and General Pickett Lot at 60.0%.

The other Canal District lots (Water, Millbury and Green) generally peaked during the evening weekday hours after paid parking and enforcement ended. All of the Canal District lots, including the General Pickett Lot are well utilized Saturday nights. During the weekday, utilization was poor in these lots, but a contributory factor was that the adjacent on-street parking meters had not yet been re-installed following a recent streetscape improvement project for the District. With the streets free and the lots still charging, it would be expected that lot utilization for the survey would be lower than normal.

This study effort focused on the off-street system so a formal utilization survey of the on-street system was not conducted. However, the on-street system was observed and during the weekday peak period, parking on several streets in the downtown core area on either side of Main Street were at or approaching capacity. In general, the rest of the metered street system appeared to have a substantial amount of available parking and some metered streets just west of the downtown core (ex. portions of Harvard and Chestnut Streets) were significantly underutilized. Because the Canal District streetscape project was underway during the study period, it was not possible to observe "typical" conditions on metered streets in this area.

Parking Services Provided the Customer

A successfully managed parking system in the customer's eyes is a parking system that is safe, clean, well lit, signed and marked, fairly and consistently enforced, effectively promoted, and with reliable equipment. Safety, cleanliness and reliability are basic requirements of all successful parking systems.

Observations of the daily operations of the parking garages and lots indicate that in general, daily maintenance is ongoing and consistent. Parking bays, stair towers, elevators and lobbies were found to be well maintained, clean and free of trash. Garage and surface lot signage was consistent and overall facility lighting sufficient and operational. Centralized customer service representatives at Federal Plaza were found to be responsive, courteous and helpful. City Staff reports that vandalism, theft and other criminal incidents at the garage have been relatively infrequent occurrences.

Overall, parking meters were observed to be functioning at acceptable levels but many are outdated mechanical meters with well-worn meter housings. Some were very difficult to read due to well-worn domes and missing rate plates. In certain locations, posted time limits, hours of operation and rates vary from meter to meter on the same street. Accompanying street signs

with meter regulations were in most cases non-existent. In most cases, customers are also not provided with a credit card payment option for on-street parking.

With regard to parking information and promotion, the City lacks a unified parking website where customers can get all information related to the public parking supply and parking options, rates, permits, regulations, etc. There is good information that can be found on items related to winter parking bans, appealing parking tickets, residential parking permits, etc., but again no single, comprehensive customer site that most municipalities provide that usually include a map of the parking system.

Parking Facilities Financial Metrics

Program financial data was collected for fiscal years 2010 through 2012. The Overall Parking Program Financial Performance Summary of surplus/deficit run by each type of facility (municipal parking garages, surface lots and on-street meters) is provided in Table 2 below.

Table 2: Financial Performance Summary – Overall Parking Program
Annual Surplus/Deficit FY2010-FY2012

	FY2010	FY2011	FY2012
Municipal Parking Garages	($705,061.04)	$324,535.65	($476,420.77)
Surface Lots	$20,339.63	$4,188.68	$41,280.63
On-Street Meters	($60,093.63)	($7,784.48)	$53,759.78
TOTALS	($744,815.04)	$320,939.85	($381,380.36)

The overall parking system has run a substantial deficit in two of the last three fiscal years. FY2010 was clearly a difficult year as the economy bottomed-out, substantially impacting revenues across the board. It was also the first full year of bond debt repayment on the newly opened Union Station Garage. In FY2011, the garages rebounded nicely but this was due in large part to a $382,900 payment from the Massachusetts College of Pharmacy and Allied Health Sciences for 100 spaces in Union Station over a 5-year period. Surface lots showed surplus revenue all three years.

To get a clearer picture of these summary results, the operating income, expenses and surplus/deficits by individual facility type are provided below.

Municipal Parking Garages

Tables 3 through 6 below provide overall annual revenues, expenses and debt service on the four municipal parking garages for the years FY2010-FY2012.

Table 3: Federal Plaza Garage
Revenues & Expenses FY2010-FY2012

	FY2010	FY2011	FY2012
Revenues	$517,757	$443,393	$446,252
Expenses	($355,903)	($303,450)	($363,240)
Debt	($267,653)	($371,830)	($313,450)
Surplus/(Deficit)	($105,799)	($231,887)	($230,438)

Table 4: Major Taylor Garage
Revenues & Expenses FY2010-FY2012

	FY2010	FY2011	FY2012
Revenues	$748,055	$1,026,339	$935,403
Expenses	($533,569)	($565,425)	($568,244)
Debt	($550,731)	($559,440)	($559,440)
Surplus/(Deficit)	($336,245)	($98,526)	($192,281)

Table 5: Pearl-Elm Garage
Revenues & Expenses FY2010-FY2012

	FY2010	FY2011	FY2012
Revenues	$980,519	$1,389,562	$1,149,263
Expenses	($391,789)	($417,273)	($419,529)
Debt	($50,462)	($86,441)	($86,441)
Surplus/(Deficit)	$538,268	$885,847	$643,293

Table 6: Union Station Garage
Revenues & Expenses FY2010-FY2012

	FY2010	FY2011	FY2012
Revenues	$222,506	$762,467	$297,780
Expenses	($349,283)	($365,212)	($366,621)
Debt	($674,508)	($628,153)	($628,153)
Surplus/(Deficit)	($801,285)	($230,898)	($696,994)

Clearly, the Pearl-Elm Street Garage with its high utilization rates and relatively low debt is the cash cow of the parking garage system. Conversely, Union Station as a relatively new, higher-end facility with significant construction debt and much lower utilization has run substantial deficits over the three-year period.

Overall, the downtown economy seemed to bottom out in FY2010 when revenues in three out of four facilities dropped substantially from the previous year and the one facility whose revenues did not drop (Union Station) had very little growth. The downtown economy rebounded in FY2011 when three out of four facilities increased revenue substantially from the previous year but has taken a small step backwards in FY2012 as revenues have decreased somewhat. The Financial Performance Summary of all four municipal garages over the three year period is shown in Table 7 below.

Table 7: Financial Performance Summary – Municipal Parking Garages
Operating Surplus/Deficit FY2010-FY2012

Municipal Parking Garages	FY2010	FY2011	FY2012
Federal Plaza	($105,799)	($231,887)	($230,438)
Major Taylor	($336,245)	($98,526)	($192,281)
Pearl-Elm	$538,268	$885,848	$643,293
Union Station	($801,285)	($230,898)	($696,994)
Surplus/Deficit	($705,061)	$324,535	($476,420)

Municipal Surface Lots

Table 8 presents the annual operating surplus/deficits at the municipally-run surface parking lots between FY2010 and FY2012. Overall, the surface parking lots have run a very modest surplus for all three years provided. The large increase in FY2012 was due in large part to the closing of the Highland Street lot, which ran at a substantial deficit each year after the County Courthouse closed. Also contributing to this increase was continued growth in commuter lot revenues.

On-Street Metered Parking

Table 9 presents annual revenue, expenses and income surplus/deficit for on-street metered parking for fiscal years 2010 through 2012. The meter program has run a deficit in two of the three years provided but overall financial performance has improved each year. Meters in the Main St. Central Business District with higher average rates than the rest of the metered areas run a small surplus each year while all the areas outside of the CBD run a deficit.

Table 8: Financial Performance Summary - Municipal Surface Lots
Operating Surplus/Deficit FY2010-FY2012

Parking Lots	FY2010	FY2011	FY2012
Brittan Square	($2,127.70)	($2,541.83)	($3,586.93)
General Pickett	$826.01	($1,053.84)	($5,566.57)
Green Street	($3,241.47)	($907.61)	($256.18)
Highland Street*	($16,237.52)	($25,337.74)	Closed
McGrath	$41,801.70	$21,074.64	$30,610.89
Millbury Street	($5,089.15)	($5,721.07)	($7,609.73)
Water Street	($162.09)	$1,598.06	$4,812.57
Expressway Area A	Closed	Closed	Closed
Expressway Area B	Closed	Closed	Closed
Expressway Area C	($4,114.74)	($287.62)	($418.36)
Expressway Area D	Closed	Closed	Closed
Expressway Area E	Closed	Closed	Closed
MBTA	$4,068.76	$11,177.75	$15,432.94
Amtrak	$4,615.82	$6,187.95	$7,861.99
Totals	$20,339.63	$4,188.68	$41,280.63

* located across from the Old County Courthouse, this lot was closed in 2011 for lack of use and transferred out of the off-street parking program to the City Manager's Office.

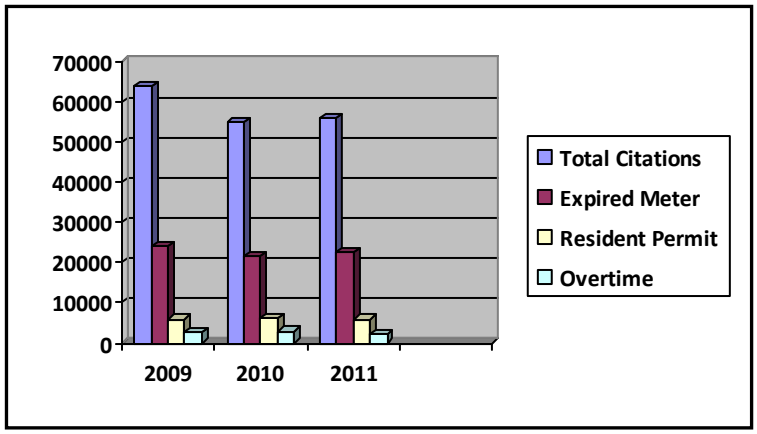
Table 9: Financial Performance Summary - On-Street Metered Parking
Revenues & Expenses FY2010-FY2012

	FY2010	FY2011	FY2012
INCOME	$283,342.37	$237,588.24	$299,132.50
EXPENSES	$343,436.00	$245,372.72	$245,372.72
SURPLUS/DEFICIT	($60,093.63)	($7,784.48)	$53,759.78

Parking Citations Issuance and Collection

All effective parking programs have in common effective enforcement and collection programs. The metrics for review here includes annual number of citations issued and paid (revenue) as well as the collection rate on issued citations. Figure 3 shows the total number of citations issued by the City annually as well as total annual expired meter and overtime violations. Information is provided by calendar year. Total citations peaked in 2009 at 63,726 with a fine value of $1,626,085. In 2011, 55,861 citations were issued with a fine value of $1,509, 850.

Figure 3: Annual Citations Issued
(2009-2011)

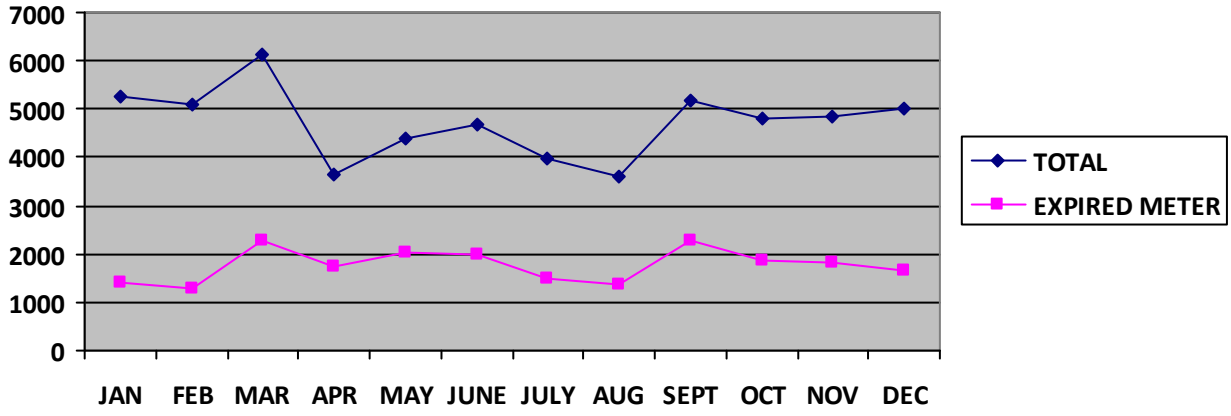


About 40% of all citations issued are expired meter violations. About 10% of all citations issued are Resident Permit Program violations.

Overtime citations at both metered and unmetered parking spaces represent about 5% of all citations issued and 10% of expired meter citations issued.

With regard to seasonality, the average monthly number of citations issued in 2011 was 4,655. The highest number of citations issued in a month was March followed by January. The lowest two consecutive months of citation issuance are July and August when an average of just 3,787 were issued. The graph in Figure 4 shows the total number of citations issued versus expired meter citations issued by month for all of 2011.

Figure 4: Total No. of Citations & Expired Meter Citations Issued by Month in 2011



Citation Collections and Revenue

Over the past three years the City has collected 89.5% of all citations issued. This outstanding collections rate has been attributed to diligent late-payment noticing and marking of registrations at the RMV as well as an effective and efficient booting, towing and adjudication/appeals program. Actual total revenue received by the City over the past three fiscal years including fine and penalties collected were:

- $1.88M in 2009;
- $1.93M in 2010; and
- $1.73M in 2011.

The City's current number of backlogged, uncollected tickets is 18,448 with a total value of $966,041. The City is actively pursuing collection of these fines and penalties.

Benchmarking with Comparable New England Cities

Parking Administrators from four comparable-sized New England cities were contacted and surveyed to benchmark and compare their parking systems performance with the City of Worcester. The four cities include:

- Hartford, CT
- Springfield, MA
- Providence, RI
- Portland, ME

All of the cities surveyed have populations over 100,000 with the exception of Portland, Maine whose population is 66,194. However, the Portland metropolitan area includes the City of South Portland and serves a total metro area population of about 230,000 people with a comparable size parking program to Worcester, and was therefore included.

Two of the four cities, Springfield and Hartford, are served by Parking Authorities while the remaining two cities, Providence and Portland, are organized as Parking Departments within city government. All own and manage parking garages with the exception of Providence where numerous privately-owned parking garages have historically provided the supply of public use off-street parking. Table 10 below provides the total number of public paid parking garage, surface lot and on-street metered spaces for each program of the cities surveyed.

Table 10: Comparable Cities Survey

Number of Public Parking Spaces in Program

CITY	2010* POP.	TYPE OF ORG.	# of PUBLIC GARAGES/ SPACES	# of PAID PUBLIC SURFACE LOTS/ SPACES	# of METERED SPACES	TOTAL # of PAID PUBLIC SPACES
Worcester, MA	181,045	City Division	4/2,813	10/770	1,160	4,730
Providence, RI	178,042	Parking Dept.	0	0	1,500	1,500
Springfield, MA	153,060	Parking Authority	5/3850	5/725	750	5,325
Hartford, CT	124,775	Parking Authority	4/4500	0	1,800	6,300
Portland, ME	66,194***	Parking Dept.***	4/2003	2/177	1,530	3,710

* 2010 U.S. Census

** Primary hub city serving a metropolitan area of approximately 230,000

*** Reports directly to the City Manager.

Comparing Parking Rates

Table 11 below compares the on-street and off-street public parking rates for the five cities.

Table 11: Comparable Cities Survey
Public Parking Program Rates (2012)

CITY	On-Street Hourly Meter Rates	Surface Lots Daily Max	Surface Lots Monthly	Garage Hourly	Garage Daily Max	Garage Monthly (Individual)
Worcester, MA	$0.20 - $1.00	N/A*	$35.00 - $59.00	$1.00**	$7.25 - $9.00	$75.00 - $109.00
Providence, RI	$0.75 - $1.25	N/A	N/A	N/A	N/A	N/A
Springfield, MA	$0.50	$8.00	$40.00	$1.50	$15.75	$85.00 - $135.00
Hartford, CT	$1.00	N/A	N/A	$1.50 - $2.50	$12.00 to $16.50	$119.00- $150.00
Portland, ME	$1.00	$5.00	$80.00	$1.25 - $2.50	$21.00 to $31.00	$110.00 - $130.00

*No daily max rate offered. Only City with hourly surface lot parking - current rates at $0.70/hour.
**First hour is $2.00.

On-Street Pricing

Worcester and Providence have tiered on-street parking rates based on utilization/demand. Portland and Springfield have flat-rate on-street pricing. Worcester is the only city with on-street meter rates lower than $0.50/hour.

Public Surface Lot Pricing

Worcester is the only City with paid publicly-owned surface lots offering hourly parking rates – as opposed to just daily or monthly rates. Comparing monthly rates, Worcester's McGrath Lot permit at $59/month is lower than Portland's two downtown lots priced at $80/month even though on-street pricing abutting the lots is priced the same at $1.00/hour. Worcester's General Pickett lot with monthly permits offered at $35, and in an area of comparable on-street hourly rates as Springfield's five lots, which are priced at $40/month.

Public Parking Garage Pricing

Worcester also has the lowest hourly, daily and monthly parking garage rates of any of the surveyed communities. Springfield, Hartford and Portland have hourly garage rates ranging

between $1.25/hour to $2.50/hour, while Worcester is set at $1.00/hour. Max daily rates, which are generally set based on a 10 to 12-hour day as done in Hartford and Portland are significantly lower in Worcester than the other four cities. Monthly garage rates in Worcester are the lowest of the communities surveyed even though utilization in two of its facilities: Pearl-Elm and Federal Plaza have high weekday utilization rates and monthly permit-holder waiting lists as discussed earlier.

Certain pricing structures are unique to each city. For example, Springfield offers a monthly permit at a $10 to $30/month premium for reserved parking spaces. Hartford offers group discounts on monthly passes for downtown employers based on the number of vehicles/permits issued as presented in Table 12 below:

Table 12: Hartford Individual/Group Rates
Monthly Garage Passes[3]

1 to 99 Vehicles	$119/month
100 to 249 Vehicles	$114/month
250 to 499 Vehicles	$109/month
500+ Vehicles	$99/month

Hartford provides both a weekend and after 5 p.m. flat rate of $4, which compares to Worcester's $1 after 5 p.m. flat rate. Hartford also provides evening monthly permits that vary in price based on location.

Comparing Public Facilities Hours of Operation

Table 13 compares public hours of operation for each community's public parking facilities. The on-street paid parking hours between cities is quite similar. All cities have on-street paid parking hours from 8 a.m. to 6 p.m. except Portland, whose paid hours start at 9 a.m. Worcester is the only city where certain meters have different hours of operation. All of the cities run from Mondays through Saturdays with the exception of Springfield where metered parking is free on weekends. Only in Springfield and Portland do the Parking Control Officers (PCOs) enforce all of the on-street paid parking hours. In Worcester and Hartford, Saturday meter hours are not enforced by the PCOs. Surface lot and garage hours of operation tend to vary somewhat between cities and facilities within cities.

[3] The HPA does not issue monthly permits. A patron signs an agreement with the HPA who provides them with "Parking Rights" on a month to month basis for as long as the patron wishes to do business with the HPA.

Table 13: Comparable Cities Survey
Public Parking Facilities Hours of Operation

CITY	Meters	PCO Enforcement	Surface Lots	Parking Garages
Worcester, MA	M-Sat 8 a.m. to 6 p.m. M-F 8 a.m. to 8 p.m.	M-F 8:30 a.m. to 5:00 p.m.	Varies	Varies
Providence, RI	M-Sat. 8 a.m. to 6 p.m.	M-F 8 a.m. to 6 p.m. Sat. 10 a.m. to 3 p.m.	N/A	N/A
Springfield, MA	M-F 8 a.m. to 6 p.m.	M-F 8 a.m. to 6 p.m.	24/7	24/7
Hartford, CT	M-Sat 8 a.m. to 6 p.m.	M-F 8 a.m. to 6 p.m.	N/A	24/7
Portland, ME	M-Sat 9 a.m. to 6 p.m.	M-Sat. 9 a.m. to 6 p.m.	24/7	6 a.m. to Midnight

Comparing On-Street Enforcement

Enforcement of on-street meters and posted time limits is important to ensure proper turnover and compliance of parking regulations. Table 14 shows the fine amounts for these violations as well as the number of each issued by community in 2011.

Table 14: Comparable Cities Survey
Enforcement – Expired Meter and Overtime Citations (2011)

CITY	Expired Meter Fine Amount	Overtime Fine Amount	Expired Meter Citations 2011	Overtime Citations 2011	Combined Expired Meter/ Overtime	Combined Citations/ Meter
Worcester, MA	$15	$15	22,410	2,130	24,540	21.2
Providence, RI	$25	$20	56,138	28,766	84,904	56.6
Springfield, MA	$25	$25	18,556	710	19,266	25.7
Hartford, CT	$25	$25	Not tracked	Not tracked	Not tracked	N/A
Portland, ME	$15	$15	68,991	14,324	83,315	54.4

Worcester has the lowest number of combined expired meter/overtime citations issued per metered parking space of the five cities. Worcester and Portland have the lowest fine rates for

expired meter and time limit violations of those responding at $15. Providence and Portland issue over twice the citations per metered parking space than Worcester and Springfield. Providence places a heavy emphasis on enforcing posted time limits as reflected by their expired meter-to-overtime citation rate, which is 2 to 1 – as compared to Portland, where it is approximately 5 to 1; Worcester 10 to 1; and Springfield 26 to 1. The Hartford Parking Authority advised that they do not track these numbers.

It is important to note that the Springfield and Hartford Parking Authorities contract out enforcement to a parking operator. Springfield contracts for only 4 full-time parking enforcement officers, which explains in part the low issuance of expired meter and overtime citations. In contrast, Providence has a total of 32 full-time, in-house parking enforcement officers providing enforcement during the day and overnight hours. Portland has 11 full-time and 1 part-time in-house enforcement officers and Worcester has 8 full-time, in-house parking enforcement officers.

Comparing Annual Parking Facility Revenues

Table 15 shows total revenue per space for the on-street meter programs and parking garages for the most recent year reported by each city. The City of Worcester has by far the lowest on-street revenue/space and second lowest off-street revenue/space of the cities surveyed.

Table 15: Comparable Cities Survey
Annual On-Street Metered and Parking Garage Revenue 2011/12

	On-Street Meters	Revenue/ Metered Space	Parking Garages	Revenue/ Garage Space
Hartford, CT	$1,089,177	$605	$5,435,759	$1,208
Portland, MA	$2,037,530	$1,331*	$2,270,648	$1,134
Providence, RI	$1,600,000	$1,067	N/A	N/A
Springfield, MA	$380,000	$507	$3,670,000	$953
Worcester, MA	$299,132	$258	$2,828,698	$1,006

*Revenue from a small (12-space) metered parking lot is not tracked separately and included herein.

The extremely low revenue per metered space in Worcester can be attributed in part to the city still maintaining 20 and 40 cent per hour rates at some meters. A relatively lower level of meter enforcement (expired meter and meter time limit violations issued) may also contribute to some degree for lower meter payment compliance. The sheer age and reliability of some of the city's mechanical meters may also be a contributing factor to lower revenue compared to the other cities listed, who are all using updated on-street meter technology. Finally, Worcester

has chosen not to meter one of its heaviest demand commercial streets (Shrewsbury Street), which would obviously increase the overall revenue per metered space. It is important to note, that many cities, including some of the cities surveyed for this assessment, use surplus on-street revenues to off-set parking garage deficits.

To demonstrate just how low the annual on-street meter revenue is in Worcester, Table 16 compares it to annual meter revenue for five much smaller New Hampshire communities that were recently surveyed by the City of Concord, NH. It should be noted that a modest level of reported meter revenue in Portsmouth, NH is in fact for metered lots.

Table 16: Annual Parking Meter Revenue

Comparison with New Hampshire Community Survey Conducted in 2011/12

CITY	2010 POP.	ANNUAL PARKING METER REVENUE
Portsmouth, NH	21,233	$1,400,000
Manchester, NH	109,565	$1,092,000
Concord, NH	42,695	$ 773,399
Keene, NH	23,409	$ 398,731
Nashua, NH	86,494	$ 314,429
Worcester, MA	**181,045**	**$ 299,132**

Comparing Annual Parking Facility Expenditures

On the expenditure side of the balance sheet, the City maintains very low parking garage operating costs with very high debt. In FY2012, the garages incurred $3,305,121 in expenses – nearly 50% of which was debt ($1,577,484) on repayment of garage bonding. Average operating expenses (not including debt) for all four garages was $561/space/year, which compares favorably to national facility operational costs that typically range between $600 and $700/year. It should be noted, that the City does not carry a parking garage renewal and replacement fund for major garage rehab/repairs[4]. Major renovation and repair projects have been funded on an as-needed basis as opposed to setting up and growing such a fund with regular annual deposits.

[4] They do have reserve accounts separate of General Fund accounts for when there is surplus revenues but these accounts are not specifically earmarked for repair and replacement and do not receive regular deposits.

Summary Findings

This Downtown Parking System Assessment included a review of on- and off-street public parking facilities, programs, supporting policies and services as well as service delivery, use of equipment and technology, rates and fees. The purpose was not to conduct a traditional supply and demand study but to focus on efficient management of the parking system including ways to increase parking performance and income, reduce operational costs, and improve customer service. Summary findings resulting from the assessment are provided below.

In general, with respect to efficiency and performance, the parking system is being effectively managed. In recent years, the City has implemented several projects focusing on cost-cutting and improving bottom line efficiency of its parking assets, including but not limited to:

- Automating its parking garages and lowering operational costs by eliminating cashiering in favor of pay-on-foot and pay-in-lane revenue control systems;
- Competitively bidding and outsourcing management and operations of its garages and maintenance and collections of its parking meters to a qualified parking facility management firm to reduce its overall O&M costs;
- Maximizing off-street revenue and use associated with special event parking through variable flat-rate pricing and active special events parking management;
- Replacing high-pressure sodium light fixtures in the parking garages with energy-efficient fluorescent lighting to lower energy consumption and operating costs;
- Competitively bidding and outsourcing its parking citations processing, noticing and collections function and achieving a high collections rate on citations compared to other municipalities and industry standards; and
- Implementing an on-street smart meter pilot program to accept credit card payments, lower overall meter maintenance and coin collections costs, and significantly improve customer satisfaction.

Despite these cost-cutting measures and efficiency improvements, Worcester's overall parking system is in financial crisis. It has run a substantial deficit two of the past three years - and the only thing keeping it from a consecutive 3-year deficit was receipt of a pre-paid, 5-year lease payment from the Massachusetts College of Pharmacy and Allied Health Services for parking at Union Station in FY2011.

While the City's average annual operating costs at its garages are at the lower range of costs found in municipal parking facilities nationally, off- and on-street revenues are relatively low.

Parking pricing has not kept pace with operating costs, long-term debt and the numerous large-block parking garage agreements made for economic development purposes.

Parking pricing has also not kept pace with the market. In most cases, Worcester's off-street public parking rates are lower than comparable, competing private parking facilities downtown and lower than any of the four comparable New England cities studied as part of this assessment. The City also has many more large-block, off-street, reduced-rate parking agreements with private entities than its New England counterparts. Worcester's on-street pricing structure is not only lower than the four comparable New England cities surveyed, but it generates less revenue than many New England cities and towns that are just a fraction of its size. Historically, it has been the inability to maintain parking rates at or near market rate that has driven some mid-to-large-size cities to consider leasing or selling their parking assets.

Important to maintaining current parking rates and a responsive regulatory environment is establishing and effective, efficient organizational structure and governance. In Worcester, the delivery of parking services, which involves multiple City Departments and Divisions, is indirect and somewhat fractionated. Decisions related to on- and off-street parking pricing and regulations are in effect made by two different boards with different legislative processes. This lack of single-point management responsibility and diffuse organizational/decision-making structure, which is typically found in smaller cities, can lead to a more passive/reactive parking management system, where over time, regulations, pricing/fees, signage, and equipment technology can become inconsistent and/or outdated.

A good example of this is Worcester's current on-street regulatory and pricing environment, which is inconsistent and unnecessarily complex. Six different on-street time-regulated parking spaces (10-min., 15-min., 30-min, 1-hour, 2-hour and 4-hour) and five different hourly meter rates ($0.20, $0.25, $0.40, $0.50 and $1.00) were observed downtown. Differing rates, posted time limits and hours of operations were observed at meters on the same street and sometimes adjacent to one another. The variability of these conditions, and at times the lack of adequate postings of these regulations, can confuse and discourage the customer, and hamper enforcement efforts.

Worcester's meter enforcement levels are relatively low compared to its counterpart New England cities. It has the lowest number of combined expired meter/overtime citations issued per metered parking space of the five cities. Current enforcement staffing is insufficient

considering the numerous duties they have beyond meter and time limit enforcement and considering that they do not even enforce all regulated meter enforcement hours (Saturdays).

Parking utilization imbalances were also observed. Two of the four public parking garages (Federal Plaza and Pearl-Elm) downtown are well utilized weekdays and carry substantial waiting lists for monthly permit parking. Meanwhile, the other two garages (Major Taylor and Union Station) are significantly underutilized. The on-street system was observed to have areas of over- and under use. Many street segments on either side of Main Street downtown were observed to be at or exceeding effective capacity (considered 85% utilization rate) during weekday peak periods, while streets north and west of the downtown core remained significantly underutilized – some virtually empty. Outdated pricing and time-limit regulations contribute to these utilization imbalances.

With regard to technology, the City's off-street parking access and revenue control equipment is state-of-the-art while its on-street meter equipment, is in many cases, outdated. Currently, 40% of all parking meters in service are spring-loaded mechanical units – some dating back to the 1960s. The current meter supply does not afford customers the convenience of paying by credit card, which means that they must have as many as 8 quarters to feed one of the City's two-hour downtown meters ($1/hr.). If they do not have the change required, they must either leave the space or risk receiving a citation. Time limits and rates are therefore limited by the current coin-only meter technology.

Other conveniences provided in peer cities include allowing customers to pay by cell phone, add time to a meter remotely, and receive a receipt – just to name a few. The City is unable to integrate these services with the existing mechanical meters, which require more service and maintenance than the newer credit card enabled meters – and project an image to the customer of an outdated parking system.

Overall, the City needs to stabilize the financial position of its parking system and become more competitive in the marketplace. There is a need to restructure organizationally to accomplish this. In doing so, the City will be able to establish and maintain market-based pricing, maintain updated regulations, wayfinding and technology; plan for future capital improvements and expansions; and properly promote the parking system while balancing its efficient use.

In consideration of current best practices in the industry, there are five (5) broad-based parking strategies recommended to address the summary findings with a particular focus on improving efficiency, performance, financial stability and customer service. These five strategies form the general foundation for more specific recommendations to follow.

Recommended Strategy #1: Establish an Improved Parking Management Structure

There are many different types of organizational structures used by municipalities today to successfully manage downtown parking. While no single structure is best suited to all circumstances, or even to a City of a certain size, most cities of Worcester's size are organized as either Parking Authorities or fully consolidated Enterprise Funds within or as a City Department. These Cities typically reorganized at some point to consolidate fragmented parking services delivered across multiple Departments to improve focus, efficiency, accountability and responsiveness.

Whether organized as Parking Authorities or fully consolidated Enterprise Funds, well managed City parking systems are generally:

- Under the direction of one experienced parking professional to create a single point of contact responsible for oversight and coordination of parking planning, operations and finances while establishing firm accountability and streamlining of the decision-making process; and

- Overseen by a governing body that makes unified decisions within the context of the entire parking system – both the on- and off-street component. Decisions are made with efficient input from parking stakeholders, users and the general public to maximize user benefits while maintaining financial stability. In other words, no decisions are made on any independent component of the parking system without considering all other parking system components as well as its overall financial position.

Parking organizations with efficient management structures share common characteristics as well. They typically maximize the use of new technology, are properly maintained and safe, consistently enforced, customer-driven, and effectively promoted with budgets to support planned activities.

Of the two organizational structures noted, Parking Authorities are uniquely separate, autonomous organizations from City Government - often formed for budgeting and bonding authority to finance parking developments; to reduce bureaucracy by avoiding certain governmental processes and pressures; and to centralize authority and responsibility into a single agency to streamline approvals of regulations and improvements.

Parking Enterprise Funds enjoy many of the same benefits as Authorities. While bonding and regulatory approvals remain with the City, Enterprise Funds, like Authorities, improve accountability and focus by consolidating budgets and staffing into a single business unit. If structured properly, Enterprise Funds within City Departments are less likely than Authorities to end up duplicating City services and can arguably improve coordination with other City functions. They are also often able to borrow at lower interest rates than Authorities because financing is backed by the full faith and credit of the City not just by future parking revenues.

There is clearly a need in Worcester to change the financial, institutional and management structure of the parking system to improve accountability, delivery of service and performance. The new financial configuration should allow the system to generate sufficient net revenue to:

- meet all direct parking expenses;
- fund renewal, replacement and expansion of its facilities; and
- provide current parking technology and high quality service.

It is recommended that City hire a Parking Manager/Director to lead the program; work with a newly created parking board or commission with appropriate representation responsible for oversight of both the entire on- and off-street parking system; and assist with the reorganization and restructuring to a true enterprise fund as previously described.

Recommended Strategy #2: Implement Market-Based, Demand-Responsive Pricing

Demand-responsive pricing simply sets pricing based on market demand to maintain efficient use, balance and availability of the entire parking supply. It is the opposite of fixed-rate, "one-size-fits-all" pricing that is prevalent in municipal parking systems. Parking rates are set with a performance goal of creating efficient use of the parking supply while providing adequate availability for customers. This equates to a performance goal of an 85% on-street utilization rate and 15% availability rate on each block (roughly one out of every seven spaces open). At this efficient rate of use, a short-term visitor/customer is assured a reasonable expectation of finding a parking space in close proximity to their destination.

Demand-responsive pricing requires active management of the parking system. Rates are no longer left in place for years on end until the system reaches fiscal crisis. Occupancy rates are regularly monitored and evaluated at the block and facility level. After an initial period, prices are adjusted up or down as necessary to balance use of the on- and off-street parking system and create appropriate turnover and availability. In this way, on- and off-street parking are viewed and managed as a system. This active, unified approach to managing supply is now possible due to relatively recent technological advancements that allow parking managers to regularly receive and monitor occupancy data from their parking meters and garage systems.

Recommended Strategy #3: Extend On-Street Time Limits

Through demand-responsive pricing, turnover and parking availability is driven more by pricing incentives than the disincentives related to artificially-low set time limits and parking tickets. If priced correctly, employees and other long-term parkers will self-select lower priced off-street or peripheral parking, and customers and other short-term parkers will self-select more convenient, higher priced on-street parking. Accordingly, on-street time limits can be extended.

Enforcement of time limits is very labor-intensive, costly and often ineffective. Without pricing incentives, some downtown employees will skirt on-street time-limits by moving their cars every two hours around enforcement routes or by risking a parking ticket by "feeding" meters beyond posted times. Meanwhile, customers must "watch the clock" and make sure they complete their errands, meals and shopping within 1- or 2-hour posted limits – or be fined – often leaving with a bad impression of the City. With demand-based pricing and extended time limits, parking citations to customers can be significantly reduced without an associated loss in turnover and availability.

In core commercial districts, typical 1- and 2-hour on-street metered time limits can be extended and priced to reflect the added on-street convenience to customers desiring longer stays. If priced appropriately, this further incentivizes employees and other long-term parkers to use off-street parking facilities. It should also reduce ticket-anxiety, time-limit shuffling and citations - making Worcester more parking friendly.

In areas peripheral to core commercial districts, 1- and 2- hour on-street metered time limits can also be extended to increase the attractiveness of these less convenient, often underutilized spaces to visitors/customers. Although parking rates in peripheral areas are generally set lower than in the commercial core.

Recommended Strategy #4: Upgrade On- and Off-Street Meter Technology

Technology upgrades are now available to improve meter reliability, functionality and customer service. Today's "smart" single-space meters and multi-space pay stations provide a non-coin and credit card payment option to customers, reduce the heavy operational cost of collecting, carrying and counting coins, improve auditing and enforcement efficiency, improve maintenance and reliability, and provide data needed to actively support pricing decisions.

New meter technology can provide wireless, real-time space and facility monitoring and data access. It can be integrated with enforcement software and communications as well as pay-by-cell phone, vehicle detection sensors and other technology applications. The customer

benefits associated with the new technologies are numerous. In addition to multiple payment options, users can receive real-time parking information, discounts, receipts as well as the ability to extend time on the meter remotely by phone or computer.

Parking space sensors or vehicle detection sensors typically use ultrasonic, magnetometer, or digital-camera technology to determine if a space is occupied. The sensors can be placed in the pavement, directly onto single-space parking meters, or hung from ceilings in parking garages. Space sensors inform users of the location of available spaces. They are also used for enforcement and data collection. The data can be used to determine occupancy rates.

Data from space sensors can be posted on the City's parking website, accessed through smart phones, or provided on message signs so that drivers know where to find open parking spaces (see next recommended strategy). In off-street facilities the increased reliability associated with sensor data as compared to garage gate counts (magnetic loops) can increase the effective capacity of garages from 85-90% to 90-95%. Newer digital-camera parking sensors are able to determine vehicle type, color, and license plate number. If people cannot find their car they can enter basic details about their vehicle and the system will tell them where their vehicle is parked.

As with many technologies, the current cost of space sensors on- and off-street put them out of the financial reach of many cities and garage operators. Some of the cost can be defrayed because the space sensors can "zero out" the meter after customers leave a stall preventing the next customer from realizing "free" parking. They can also be used to prevent customers from "feeding" the meter beyond the posted time limit. Sensor technology applications are evolving and cost is anticipated to continue to decrease over time.

Recommended Strategy #5: Improve Wayfinding & Initiate Planning for a Future Parking Guidance System

Effective and well managed parking systems generally have excellent parking and downtown wayfinding systems through conventional signage and banners. Some medium to large-size cities are beginning to plan for and develop comprehensive parking guidance systems (PGS). A PGS is an advanced wayfinding application designed to assist customers to available parking facilities nearest their destination utilizing real-time parking utilization data fed controlled and fed through a software application to a system of electronic dynamic messaging/signage. The PGS basically guides and controls vehicle flow to parking facilities and spaces. In some instances, the PGS is even designed to influence decision-making and behavior. It also assists parking managers in operating, controlling and maximizing utilization of their facilities.

There are two primary PGS applications – one designed for outside the parking facility and one for inside. The outside facility application reaches beyond parking facilities and even downtown destinations to provide information to the parker before they reach their destination to guide them to a specific parking location. The inside facility PGS provides guidance information to find available spaces within a facility. Both systems are integrated with parking access and revenue control equipment and/or parking space sensors described in the previous strategy.

A PGS is a tool that can provide premium guidance and information to customers while working to maximize use of major parking facilities, improve traffic flow and reduce traffic congestion. It can be an extremely useful tool during major special events by efficiently directing patrons, many of whom are unfamiliar with the area, to designated parking facilities.

The application specifically recommended for Worcester is to plan and design a PGS that would link the four garages and the McGrath Lot to help navigate customers to available parking facilities downtown. Like a static wayfinding system, electronic variable message signs would be installed on gateway streets, or primary access points into the downtown, to provide customer direction to the closest available public parking facility and to include the number of spaces available at that facility. A list of nearby facilities would be provided on the sign so that if one facility reached the determined effective capacity, the customer could be directed to another. An example of a PGS sign in San Jose, CA is depicted at right.

Each parking garage would have a detection infrastructure to determine total utilization. The parking lot pay station would also be linked to provide payment/utilization information. The garage and lot data would be compiled by a central system server linked to the electronic variable message signs to provide real-time data to drivers entering on the multiple gateway corridors. Communication could occur through via a wireless network connection or other option. Once at the closest available facility, a secondary system could be provided to guide the customer to the closest available floor and space. An example of a PGS sign at a three floor parking deck in Naperville, IL is shown in the photo above.

Once in the facility, and on the appropriate floor, optional guidance can be provided to the actual closest open parking space though a space detection system with a series of red and green LED light/space indicators. An example of this type of application is shown for Calgary, AB in the photo below. These types of systems can be very effective for large facilities with complex ramping/search patterns, dead end bays, etc.

A complete, structured PGS can be significantly more expensive than a traditional wayfinding system. However, given the significant number of competing off-street parking facilities managed by the City and by private operators, once the City restructures organizationally, introduces market-based pricing, and installs supporting on-street meter technology to supplement garage technology already in place, an investment into a complete parking guidance system should be considered.

The PGS could be supplemented by a wireless internet-based system integrated with the City's website and third-party vendor applications for mobile devices (smart phone, GPS, etc.) to provide parking information, including parking facility location, real-time space availability, rates, and hours of operation, to visitors before they reach Downtown. These mobile device parking guidance & payment systems are becoming much more prevalent in the U.S. as more and more customers seek parking/mobility applications for their smart phones. A sample screen-shot from one such application providing real-time parking availability in downtown Boston is depicted. Mobile device parking guidance and payment systems can be implemented with or without physical PGS infrastructure.

Specific recommended program improvements are provided below. These recommendations build on the previous five (5) broad-based parking strategies and address the summary findings with a purpose of improving system wide efficiency, financial performance and customer service. They are designed to improve the integrity and competitiveness of the overall parking system, to better utilize under-performing assets and provide for maintenance and protection of those assets. Specific recommendations have been grouped in the following four general categories:

1. **Program Elements** – providing consistent, compatible and integrated regulations, policies, pricing and strategies for on- and off-street parking assets;
2. **Enforcement** – matching enforcement to system needs;
3. **Customer Information and Program Promotion** – reaching out to current and potential future customers through various marketing, educational, & promotional strategies; and
4. **Organizational Structure and Service Delivery** – providing appropriate administrative responsibility and accountability, and management and decision-making structure to ensure success.

Technology recommendations are included in multiple categories as appropriate.

1. Program Elements

1.1 Establish Zonal Pricing Structure/Time Limits and Upgrade Meter Technology

Recommended individual pricing structures, time limits and meter upgrades will be provided for three distinctive zones defined as follows:

- Downtown Core Commercial Zone – centers on Main Street and is bounded north-to-south from Highland to Chandler Streets and east-to-west from Major Taylor/McGrath Boulevard to, but not including, High/Chestnut/Harvard Streets, which is part of the Peripheral Area described below.

- Canal District Commercial Zone - includes the metered areas on recently renovated Green, Millbury and Water Streets.

- Peripheral Areas Zone – are located directly adjacent to, and outside of the Downtown Core Commercial District.

In general, parking is recommended to be higher priced in the Downtown Core; more moderately priced in the Canal District and lower priced in the Peripheral Areas. In all zones, on- and off-street parking pricing is structured to provide significant incentives for long-term parkers to use off-street parking facilities.

Downtown Core Commercial Zone

1.1.A *Parking Garages (Federal Plaza & Pearl Elm)* – Maintain current hourly garage pricing at $2.00/hour for the first hour but increase the cost of additional hours from $1.00/hour to $1.25/hour and increase the daily maximum rate to $10.00. Increase the monthly rate at Federal Plaza from $75.00 to $85.00; and at Pearl-Elm from $109 to $120. Close out expired large block agreements and phase-out remaining ones. Replace them with new group discount rates available to all businesses according to the following recommended schedule:

# of Group Passes	Discount (% off Monthly Rate)
1 to 99 Vehicles	5%
100 to 249 Vehicles	10%
250 to 499 Vehicles	15%
500+ Vehicles	20%

Eliminate the monthly contract parker waiting list at Federal Plaza to increase existing utilization rates of the facility closer to effective capacity (considered 90% for parking garages). Evaluate whether the number of monthly contract passes sold at Pearl-Elm can be increased after facility pricing is increased and large block parking agreements phased out. Consider linking communications between the two garages and manage them under a common server so that if monthly customers were turned away from one facility that was full, their access card would be accepted at the other.

Discussion: Recommended rate increases are based on existing utilization rates, monthly pass sales & waiting lists, off-street rates in nearby private parking facilities, and rates in downtown parking garages in comparable cities. The recommended rate increases will help address structural deficits within the parking fund while still leaving Worcester with the lowest public parking garage rates of any of its New England counterparts surveyed.

The recommended $1.25 off-street hourly rate is still lower than the $1.50/hour rates in Worcester's closest counterparts - Hartford and Springfield. Regarding the max daily rate, a general industry standard is that it should be set at approximately 8 to 12 times the normal hourly rate. The $10 recommended max rate would therefore be at the lower end of this range to incentivize infrequent long-term parkers to use the garage, and still be lower than rates found in any of the other New England Cities in this report. Regarding monthly contract passes, it is typical for municipalities to sell 100 percent or more of a facility's total spaces to contract parkers. This is because on most working days, 15 to 30 percent of monthly parkers are not using the space for which they paid.

1.1.B *On-Street Metered Parking* – extend 1- and 2-hour time limits to 3-hours and establish progressive pricing structure that maintains current (maximum) $1/hour core rate for the first hour; $1.50/hour for the second hour; and $2.00/hour for an extended third hour. Replace existing electronic coin-operated meters with credit-card enabled, solar powered "smart" meters.

***Discussion**:* Currently, there is still a significant amount of metered parking within this core commercial district set at 20 and 40 cents/hour. These parking rates would increase to $1.00/hour for the first hour to match the rest of the district's on-street rate. The City is likely losing money on this lower rate parking currently. Assuming an average turnover of five vehicles per space per day, on-street parking rates at $0.40/hour would generate about $50/month in revenue, which is not likely to be enough to pay for meter and space maintenance, collections, enforcement and administrative overhead. This means that the City is certainly losing money on the $0.20/hour metered spaces and probably on the $0.40/hour ones as well, which explains in large part why the on-street meter program ran a deficit in FY2010 and FY2011 when most municipalities run a healthy on-street surplus.

The recommended escalating rate structure supports and enhances Worcester's current pricing structure. Recommended on-street pricing would now increase for longer stays just as garage pricing decreases for longer stays. This structure better incentivizes short-term customers to use curb spaces and long-term customers to use off-street spaces. The expanded third hour of on-street parking would be priced at a premium – set so that 3-hour parking whether on-street or in the garage would be equal ($4.50). The escalating pricing structure uses a "carrot" to move longer-term parking and meter feeders to off-street facilities rather than the "stick" of lower time-limit restrictions and parking tickets. If the City chose to extend on-street limits to 4 hours in the future, the

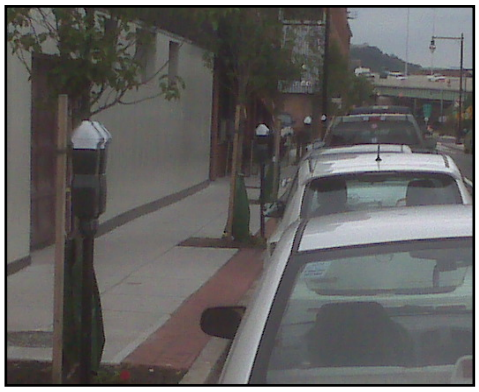
recommended premium for parking on-street for a fourth hour would be $2.50/hour, which would result in a 4-hour stay on-street costing $7.00 compared to $5.75 in the garage. Increased revenue derived from the rate change would help offset the cost of purchasing and installing the new credit-card enabled, solar powered smart meters.

1.1.C *McGrath Parking Lot* – increase planned pricing in 2013 from $0.75/hour to a flat rate $1.00/hour with a discounted daily maximum of $6.00. Increase monthly rate nominally from $59.00 to $60.00. Consider opening the lot at night for flat-rate special event parking. Replace electronic, coin operated meters with four (4) multi-space parking pay stations to provide multiple payment options in a pay-by-space application. Existing meter poles will be used to assign individual numbers to each parking stall. Customers will simply enter their space number at the pay station, make payment, and go on their way.

Discussion: The increased revenue derived from the recommended rate increase will help off-set the cost of purchasing and installing the new pay stations.

<u>Canal District Commercial District</u>

1.1.D *On-Street Metered Parking* – extend 1- and 2-hour time limits to 3-hours but maintain flat-rate $1.00/hour pricing.



Discussion: Since there is no structured parking serving the zone, and since on-street parking is priced higher than off-street, an escalating pricing structure is not needed. The new solar powered, credit card enabled smart meters were installed on Green, Millbury and Water Streets in September 2012. The new Water Street meters are shown in the photo above.

1.1.E *Off-Street Lots* – Increase price from $0.70/hour to FY14-approved price of $0.75/hour for all Canal District Lots that include the General Pickett, Green Street, Millbury Street and Water Street Lots. Replace electronic, coin operated meters with one (1) multi-space parking pay station in each lot to provide multiple payment options in a pay-by-space application. Existing meter poles will be used to assign individual numbers to each parking stall. Extend the 3-hour time limit in the Green Street Lot to 10-hours.

Discussion: A single pay station is recommended for each lot. The 70-space General Pickett Lot could warrant a second pay station but given that there are 55 permit holders in the lot who will not be interacting with the pay station, there is no need. It is true that the lot is essentially down when a pay station jams or malfunctions but fortunately, the pay stations will provide an email notification to the parking administrator when that occurs.

Prior to reconstruction and upgrade, Green Street itself was posted at 20 cents/hour with 1-hour parking and the Green Street Lot at 65 cents/hour and 3-hour parking. Utilization was reportedly very poor. With on-street time limits increased to 3-hours at the new $1.00/hour rate and off-street parking at $0.75/hour, posting the lot 10-hour parking, consistent with other paid municipal lots should help increase utilization.

<u>Peripheral Areas Zone</u>

1.1.F *Parking Garages (Major Taylor & Union Station)* – Maintain current monthly and hourly garage pricing but reduce daily max rate at Major Taylor from $9.00 to $8.00 and heavily promote the new daily rate, which is generally $2/hour lower than surrounding parking lots. Close out expired, large block agreements and phase-out remaining ones. Replace them with new group discount rates described in Section 1.1.A above.

1.1.G *On-Street Metered Parking* – Increase current hourly meter rates ($0.20 and $0.40/hour) to $0.50/hour and replace outdated coin operated mechanical meters with newer coin operated electronic meters changed out from the Downtown Core Commercial Zone.

1.1.H *Off-Street Lots* – Recommendations for the off-street lots are as follows:

- Eliminate the Brittan Square Lot from the paid parking program. This privately-owned, leased parking facility is very poorly utilized, confusing to customers, difficult to enforce and runs a deficit every year. One suggestion is for the neighborhood businesses to adopt and maintain the lot.

- Increase the rate of the Amtrak and MBTA commuter lots from $3/day to $4/day consistent with the rest of MBTA commuter lots statewide. Replace “honor boxes” with two (2) multi-space parking pay stations to provide multiple

payment options in a pay-by-space application with pay-by-cell phone option. Consider potential evening sublease of a portion of the lot for valet parking.

- Increase rate of the Expressway Area C Commuter Lot from $0.70/hour to $0.75/hour and install two (2) multi-space parking pay stations to provide multiple payment options in a pay-by-space application with pay-by-cell phone option.

<u>All or Multiple Zones</u>

1.2 Standardize short-term on-street parking, currently posted at 10-min., 15-min., 20-min. and 30-min. to either 15-min. or 30-min. as appropriate and meter these spaces. This action should include a review of all individual short-term posted spaces to ensure that they are still needed by adjacent commercial uses.

1.3 Implement and promote a 10-minute grace period on all on-street and off-street meters to eliminate customers receiving a parking ticket within minutes of a meter expiring to improve customer experience and reduce parking citation appeals.

1.4 In the short-term, modify the hours of paid parking from 8 a.m. to 6 p.m. Mon.-Sat. to 9 a.m. to 6 p.m. Mon.-Sat. Longer-term, consider extending hours to 9 a.m. to 9 p.m. Mon.-Sat. in the two Core Commercial Districts.

Discussion: Based on field observations of on-street parking utilization, significant accumulation of on-street spaces do not occur until 9 a.m. when many retail establishments open. Also, the off-street parking accumulation survey conducted by the City revealed that parking utilization of the City's off-street public lots exceeded the 8 a.m. to 9 a.m. period for every hour after 6 p.m. until 10 p.m. On-street observations were similar. This recommendation will require further study, but if implemented could significantly increase the use of the public parking garages after 6 p.m. when they are severely underutilized most evenings. It would also allow the City to initiate special event flat-rate parking in the McGrath Lot and Canal District Lots.

1.5 Consider implementing first-floor "reserved" parking zones in the parking garages at a 25% to 30% premium over a regular monthly permit.

Discussion: Individual spaces would not be reserved/assigned but prime spaces would be available on a first-come-first-serve basis. Reserved parking zones could be posted for workdays only – opening up to all customers on nights and weekends.

1.6 Expand metered parking to streets within commercial districts with peak parking demands in excess of 85%.

Discussion: Certain unregulated streets in the commercial district were observed to be at or exceeding effective capacity. All blocks with practical capacity issues warrant price-based management. Conversely, meters warrant consideration for removal if the streets they are on fail to reach a 50% utilization rate during peak parking periods.

1.7 Conduct Comprehensive Conditions Assessment of all four (4) Municipal Parking Garages and develop long-term capital improvement, repair and replacement program and a Renewal & Replacement Sinking Fund to support it.

Discussion: Preventative facility maintenance, rehabilitation and repair are critical to maximizing the lifespan and appearance of the parking garages. Failure to plan for, fund and address these issues in the short-term will inevitably lead to higher costs and potential crisis long term. The conditions assessment will include a comprehensive evaluation of all building systems, structural condition, deck coating, signage, striping, damage, elevators, doors, offices, parking equipment, security systems, emergency generators, sump pumps, fire pumps, fire extinguishers, sprinklers, standpipes, fire extinguishers, lighting and fire detection. Code compliance and life cycle replacement analysis are conducted. Capital and maintenance plans are updated and renewal and replacement funds set. Renewal & Replacement funds typically range from $50 to $100/space/year, which for the four public garages would be $140,650 to $281,300/year. The R&R fund would be established based on the long-term capital improvement program developed.

2. Enforcement

2.1 Expand enforcement efforts to ensure adequate coverage of posted meter hours on weekdays and Saturdays.

Discussion: Previous recommended strategies related to improved signage, meter reliability and demand-responsive pricing will increase regulatory compliance.

However, they will not eliminate the need for providing adequate enforcement coverage in paid parking areas. Current meter enforcement ends just before 5 p.m. weekdays when meters are in effect until 6 p.m. and there is no PCO enforcement on Saturday's. Regular customers are all too aware of when enforcement coverage ends and the result is lower compliance, unlawful parking and for the City, lost revenue.

Current enforcement staffing levels are insufficient to adequately cover enforcement routes for all posted meter hours given other enforcement duties. There are just eight (8) full-time PCOs responsible for enforcing all parking metered and regulated areas as well as the RPP program area. PCOs also enforce street sweeping, leaf collection and winter parking ban regulations. They boot vehicles for non-payment of parking citations, enforce the abandon vehicle program and provide supplemental security services in the City owned parking garages.

2.2 Consider outsourcing certain enforcement functions to the City's parking management firm to allow for full and adequate coverage of posted meter hours with existing staff. Potential out-sourcing activities could include non-citations issuance functions related to garage security and booting for example.

Discussion: Cities typically outsource garage security services and many now contract for labor-intensive booting to leverage state-of-the-art booting system technologies without having to pay for them. These booting systems can include camera-mounted, mobile license plate recognition (LPR) vehicles/systems designed to find and verify bootable automobiles (scofflaws). LPR cameras can read hundreds of license plates per minute and the images are automatically and instantly scanned into a laptop, alerting boot crews to any car that is boot eligible – often resulting in lower scofflaw lists, reduced labor hours and increased revenues. The LPR system can also be used for RPP program enforcement as well as identifying stolen and unregistered vehicles. The City of Providence is currently using LPR technology successfully for managing and enforcing their residential permit program.

Another technology used to reduce staffing needs is the self-releasing boot, which can be released with wireless communication and returned by the scofflaw. It is a more cost efficient and effective method of increasing collections from habitual violators. The boot has a 24-hour number for the violator to call and pay any outstanding parking fines. Once payment is made over the phone by credit card, the violator receives a code that is then entered onto the boots key pad and the boot releases itself. The violator then has 48 hours to return to an authorized drop station. If the boot is not returned the violator's credit card is charged a set "lost" boot fee. City crews charged with installing and releasing boots can be very labor intensive and often must coordinate boot releases around office hours of operation.

2.3 Increase the expired meter and overtime fines from $15 to $25 consistent with current fine rates in cities of comparable size.

Discussion: The number of overtime citations issued is expected to drop with recommended changes that would increase 1- and 2-hour time limits to 3-hours and provide a 10-minute grace period at parking meters. The higher fine amount is therefore justified for those falling outside of those expanded parameters and should offset any significant loss in citation revenue.

3. Customer Information, Marketing and Program Promotion

One of the most important aspects of a successful parking system is program promotion and marketing. Customers need convenient and accurate information on parking location, availability and price. It is important to know when spaces are available in a particular facility at a particular time, the price they will need to pay, and whether there are less expensive alternatives nearby. Parking promotion and marketing materials shape visitor's perceptions of the City and its parking system. Promotional material should also be directed to downtown employers, employees and customers/visitors. For example, it is very important to promote rates, policies and regulations that encourage downtown employees to park in long-term parking areas to preserve the on-street parking for customers and visitors. It is also important to provide directional guidance to customers.

There is very little published information on Worcester's parking program available to the general public. Parking educational material on the City's website is incomplete and parking maps, brochures, rates and permit information are either difficult to find or unavailable.

At the street level, field observations revealed that "trailblazing" signs directing patrons to the parking garage from gateway streets are in place but are often obscure and understated. The photograph shown below is a good example.

The small municipal parking directional sign to the Major Taylor Garage found on the Central Street connector from I-290 and shown in the forefront of the photo is overwhelmed by the over-sized, multicolored electronic parking sign to the privately-owned 100 MLK Jr. Blvd. parking lot seen in the distance. It would be logical for a visitor to the City to interpret the second larger sign, which is located just before the Major Taylor Garage, as the municipal parking lot. The MLK lot even has the universally-understood blue and white parking symbol, which indicates a location for public parking. This trailblazing signage certainly puts the Major Taylor Garage at a competitive disadvantage.

3.1 Create a Comprehensive Parking Website and Map

Discussion: The City's current website information related to parking primarily deals with permits, citations and adjudication. The City could design a comprehensive web page incorporated into its existing website that contains information on public parking locations, rates, hours of operations, permits, directions. The parking website w/map should be available by a single key stroke from the homepage. It should also include promotional materials related to future improvements (i.e. the new solar powered, credit card enabled smart meters in the Canal District). Frequently Asked Question lists are very useful to customers. Specific contact information numbers should also be provided for questions not answered at the site. Alternatively, the parking website could be developed as a stand-alone site with a link to the City's website.

3.2 Create a Marketing Plan for the Parking Program

Discussion: The marketing plan should identify the broader market and target market; customer and facility profiles; and specific plans for customer outreach, retention and base expansion. Marketing materials can include direct mailings, brochures, maps, kiosks, web pages, links to promotional discounts, use of social media networks, customer constant contact lists, QR codes, advertisements/articles, and banners.

3.3 Enhance Signage and Wayfinding to Public Garages and Lots

Discussion: In the short term, the City should strategically upgrade wayfinding signage to municipal garages and major lots from entrances to the Downtown, and upgrade garage signs & banners as well. There are four types of wayfinding signs:

- Introductory – parking signs from gateway streets should be distinctive in color and size and characterized by unique identifiable logos or branding. These signs can display parking facility names and should be located at standard heights.
- Directional – parking signs along the route should carry the distinctive color, size and logo and direct drivers to specific off-street parking areas by name and directional arrows.
- Identification – parking signs are placed at the entry to each lot/garage. Again they are consistent in color and logo and include facility name, hours of operation, etc.
- Pedestrian - wayfinding signs are placed at the points of entry/exit to parking lots and garages at a pedestrian scale. They provide direction to downtown area attractions and points of interest.

Some examples of sign type applications in different settings are provided below.

Directional

Identification

Pedestrian

Longer term, as revenues increase and the financial position of the parking system is improved the City should advance planning and design of a comprehensive electronic, real-time parking guidance system as described earlier.

3.4 Utilize Promotional Banners at the Major Taylor Garage

The existing Union Station parking banner, which is posted at the Washington Square roundabout is visible and effective. A similar type banner could be used to promote the low-cost hourly and competitive daily rate (see recommendation 1.1.F) at the Major Taylor Garage given the size of its façade, which is unobstructed to MLK Boulevard and shown in the photo to the right. It could also be promoted to specific user groups such as Federal Court House jurors and others. This facility is surrounded by low cost surface parking facilities that are actively

promoted and in some ways better situated to entrances to the City. Therefore it must be actively promoted and signed.

3.5 Promote and Expand Merchant Validation Program at Garages and Lots

The City already has validation equipment in the garages and with some of its discount large block agreement partners for employees and/or visitors. Validation could be marketed to other businesses downtown to take advantage of the group discounts recommended in 1.1.A above.

There could also be a focus on dinner and entertainment validation to specifically improve utilization of the Major Taylor Garage during weekdays and all the garages in the evenings and on weekends. Most garages offering such programs provide a limited amount of free parking with validation, usually between 1-4 hours and during certain periods. Usually restaurants and businesses participating in the validation program will display an official city parking validation sticker in their store window (example below) and on promotional materials so that customers know to get their parking ticket validated. The City generally will publish a list of the participating businesses on its parking website.

The goal of this system is for the City to promote business by offering free parking. The businesses return the favor by paying the City for the ability to offer validation. The City gives local merchants the chance to offer their customers free parking as a reward for shopping with them and charges merchants by the number of times the validation is used – often with a percentage discount off the hourly rate.

4. Organizational Structure and Service Delivery

The parking system is organized as an enterprise fund intended to be financially self-sustaining however it does not actually operate as one. Parking services are delivered from multiple City Departments and some enforcement revenue is returned to the general fund. Surplus parking facility revenues, if there are any, are "banked" and can be used for future maintenance and rehab projects however there is not a budgeted line item for facility renewal and replacement.

4.1 Re-organize as a True Enterprise Fund

There is a need to change the financial and institutional structure of the parking system to improve accountability, delivery of service and performance. The new

financial configuration should allow the system to truly operate as an enterprise fund that generates sufficient net revenue to:

- meet all direct parking expenses;
- fund renewal, replacement and expansion of its facilities; and
- provide the latest technology and a high quality service.

For this reason, parking enterprise funds in other Cities include revenue from all parking sources including citations. They also include all parking expenses, including the costs associated with parking permit programs, citations processing, adjudication and collections – as well as maintenance and capital costs. As such, it is recommended that all parking staffing and programs be consolidated into a single unit of City Government. Some cities that have converted to full parking enterprise funds, have done so over several years to lessen the impact to general fund revenues in any one year. In these cases, surplus revenues from meters, garages, permits and citations are initially directed to the General Fund.

The new institutional structure should involve establishment of a Parking Commission with to provide advisory guidance and oversight of the entire enterprise (including both the on- and off-street parking system). Ultimately, annual budgets would still be established by the City Council but the Commission could be empowered to act on proposed recommendations regarding program policies and regulations under Omnibus action of the City Council to make the parking system more responsive to its customers. The Parking Commission would ideally be comprised of members representing major stakeholders in the downtown and commercial districts (examples could include business owners, major employers, residents, elected officials, economic development and business associations, etc.).

As the catalyst to restructuring the enterprise system, a parking professional should be hired to be a single-point of contact and accountability for the entire parking program. This parking professional would be charged with consolidating all parking functions within a single administrative entity. That administrative entity could be within a City Department or directly under the City Manager's office. The parking professional would provide budgetary and programmatic direction and be charged with implementing the recommendations of this assessment. The parking professional would be the lead staff to the Parking Commission.

The recommended implementation plan was developed with the goal of restoring the financial stability of the parking system over a 3-year period. The first year focuses on laying the groundwork for a new actively managed parking program. It will involve putting in place the management, organizational structure, budget, ordinance and regulatory changes needed to support the recommended plan. In year two, all new on- and off-street meter equipment and supporting signage should be purchased and installed, and new market rates and regulations established. Year three would include implementation of marketing & promotional plans, plan refinement through ongoing study of real-time utilization data, and strategic expansion of the parking program.

YEAR 1

1. Hire a Qualified Parking Director/Manager - The recommended first action resulting from this study is to hire a qualified parking professional to lead and direct the necessary organizational and regulatory changes and improvements to the parking system. This new position would be 100% dedicated to actively managing the parking system and is currently funded in the Department of Public Works and Parks budget.

2. Establish Desired Organizational Structure and Governance - It is recommended that the City Manager's Office develop an internal parking task force of all Departments involved in the parking function to meet regularly with the Parking Director to consolidate all parking functions into a single administrative entity and develop the consolidated annual parking program and supporting budget. The internal task force would also recommend to the City Council changes in Board/Committee oversight of parking including the potential development of a unified on- and off-street parking commission and any Ordinance changes thereby required.

3. Obtain Overall Plan Approvals for Recommended Market-Based Pricing, Time Limit Changes, Hours of Paid Parking, Increased Parking Fine/Fees, and Purchase of New Meter/Pay Stations – Overall plan presentation, outreach, input and consensus building will be needed. Specific capital and operating budgets will be prepared along with a phased implementation plan for on-street meter and off-street pay station replacements. Ordinance changes will be prepared for specific recommended regulatory changes. A Parking Management Ordinance should also be created allowing for the on-going monitoring and adjusting (within prescribed limits) of parking rates to achieve desired occupancy levels as discussed in the report. The Ordinance would authorize

parking rates to be adjusted up or down administratively on an annual or semi-annual basis within certain parameters. The Parking Director would be responsible for ongoing occupancy monitoring and rate adjustments.

4. Close-out expired large block agreements following a legal review and noticing process, and introduce new discounted group rate parking pass program by Ordinance. The Parking Director would work directly with the City's Legal Department on the process of systematically terminating expired large block agreements and use of monthly passes, phasing out agreements yet to expire, and creating the new recommended group discount program.

5. Draft/Issue separate RFPs for purchase & installation of new credit-card enabled off-street pay stations and on-street "smart" meters with integrated pay-by-cell phone service. It is recommended that the on-street meter RFP include provisions for a parking sensor pilot project so that the City can evaluate the cost-effectiveness of implementing individual space sensors on-street. The pilot program could be implemented for several months at a select number of high-use spaces in the Downtown Core Commercial District.

6. Implement monthly pass rate increases at Pearl/Elm and Federal Plaza Garages. The recommended rate increases are based on current market conditions - independent of on- and off-street recommended hourly and daily rate increases. They also require no upgrade in technology to advance. Therefore, they could proceed in the first year assuming all necessary approvals are secured.

7. End lease agreement for paid public use of Brittan Square Parking Lot – following legal review, noticing and removal of signage and parking meters.

YEAR 2

1. Purchase and Install new off-street credit-card enabled pay stations and on-street "smart" meters integrated with enforcement technology and pay-by-cell phone system, and implement parking space sensors pilot program. It is recommended that the overall installation be phased with the off-street system implemented first followed by the on-street system. The Off-street pay stations will require construction of concrete pads, power connections and canopies as well as space numbering and removal of honor boxes and single-space meters. Approvals/permits for construction/installation will likely be required by the State for the commuter lots.

The on-street installation includes replacement of the existing electronic coin-only meters in the downtown core commercial district with solar-powered, credit-card enabled meters and changing-out outdated mechanical meters in the peripheral area with the electronic coin-only meters from the downtown core commercial district. Meters would be programmed with a recommended 10-minute grace period.

2. Implement approved off- and on-street rate changes, time limits and hours of operation – Rate changes would be implemented with the phased implementation of the new meter technology. As such, new off-street surface lot rates would go into effect with installation of the new pay stations followed by new hourly on-street and garage rates that would go into effect with the on-street meter installations. Lot and meter time limits would also go into effect with the installations. The hours for paid parking and enforcement would be rolled back from 8 a.m. to 9 a.m.

3. Roll-out Promotion of New Rates, Regulations and Technology – working closely with selected pay stations and meter vendors. Promotion should include creation and posting of comprehensive parking website and map, customer outreach and advertising campaigns, promotional banners of discounted daily/monthly rates, etc.

4. Expand enforcement efforts to ensure adequate coverage of posted meter hours on weekdays and Saturdays. Restructuring of enforcement responsibilities and outsourcing options to free up existing enforcement staff for meter route coverage will be evaluated by the Parking Director/Manager working closely with the Enforcement Supervisor and internal parking task force (see Year 1, Action 2) and implemented here.

5. Conduct a Comprehensive Facility Conditions Assessment of the four (4) municipal parking garages – this consultant study will result in updated maintenance/capital plans and a renewal & replacement sinking fund.

6. Evaluate Parking Space Sensors Pilot Program – a cost/benefit analysis of a limited pilot program would be conducted to determine if the space sensor costs justified use/expansion based on benefits related to enhanced data collection, enforcement and customer use information, adherence to posted time limits, and revenues.

YEAR 3

1. Monitor on- and off-street parking utilization and turnover rates and adjust/refine pricing, time limits and designated paid parking areas accordingly – this analysis,

conducted by the Parking Director/Manager using the new meter technology software should also consider areas where paid parking areas and hours of operation should expand or contract. A block level analysis of utilization and turnover rates is appropriate.

2. Develop Comprehensive Marketing Plan – following refinement of the overall parking system in the action above, a comprehensive marketing plan should be developed focused on customer outreach, base-retention and expansion.

3. Implement Merchant Parking Validation Program – integrated with the comprehensive marketing plan and new pay station/meter technology, the Parking Director/Manager should implement a new merchant parking validation program to improve customer service, facility utilization and business and customer loyalty.

4. Implement Premium Reserved Monthly Parking Pass at Garages – to offer customers purchase of a premium pass for access to a first-floor "reserved" section on a first-come-first-serve basis at a premium price as discussed earlier.

5. Develop Comprehensive Wayfinding Plan – consultant study will develop overall strategic wayfinding plan for off-street parking facilities including specific, architecturally designed dynamic and static signage/banners. The consultant study could include consideration of the feasibility for integrating the wayfinding plan with advanced, electronic parking guidance systems (both fixed signage and mobile device applications).

APPENDIX

EXHIBIT A: Large Discounted Parking Pass Agreements for Municipal Parking Garages

FEDERAL PLAZA GARAGE

- Small Business Service Bureau (SBSB), 554 Main St. – Agreement dating back to 1997 whereby the City leases 120 to 150 parking spaces in the garage to SBSB for full-time employee parking at the current lowest available rate in the garage (currently $52/month – since 2007). 30 additional monthly passes are provided free of charge for use by part-time employees.

- 370 Main Street Associates (MSA) – Agreement dating back to 1999 whereby the City leases 190 parking spaces in the garage to MSA for tenant use between the hours of 6 a.m. and 6 p.m. each day at a discounted rate – currently $63.70/month. An additional 20 monthly passes are provided at no additional cost to 370 MSA for general part-time or second shift employees of UMass Memorial Health Care – a tenant of 370 Main Street. The Agreement terminates on December 31, 2016.

- Burwick Building Resident Pass Program – Approved by the City's Off-Street Parking Board in 2003, 100 overnight/weekend monthly permits are provided to the owner for building residents at a rate of $35.00/month. The purpose of this special residential monthly program was to assist the developer who lacked sufficient parking to satisfy local zoning regulations. Development construction is now complete but the units are not rented and no monthly permits have been requested.

- Hanover Theatre – Agreement dating back to 2007 whereby the City leases to Hanover 400 parking spaces within the facility for each night of major events at the Theatre for a guaranteed minimum of 80 major events/calendar year. The Theatre sets the parking fee and retains the proceeds and pays the City $400/event ($1/space), which escalates to $600/event after the 7th year of the Agreement. The Agreement expires in 2017.

City employees are also able to purchase regular monthly parking permits at a discounted rate of $52.00.

MAJOR TAYLOR GARAGE

- Hilton Gardens Inn – Agreement dating back to 2007, whereby the City currently reserves 130 "guaranteed" spaces in the facility at a discounted rate of $75.00 for guests having business at the hotel and restaurant and an additional 170 "preferred rate spaces" ($6/night) for guest overnight parking. 100 of these spaces are reserved for valet operations of the Inn. Agreement expires in 2026.

- Massachusetts College of Pharmacy and Allied Health Sciences, 9 Norwich Street – Agreement dating back to 2009 whereby the City provides 100 parking spaces in the garage in the form of regular monthly parking passes for the fee of $1/year for 30 years to induce the College to purchase the building at 9 Norwich Street and open a Worcester Campus of the College. The Agreement was originally for parking in the Pearl-Elm Street Garage but the City moved it to Major Taylor as allowed in the Agreement, which expires in 2029.

- Worcester Sharks Hockey – Agreement dating back to 2006 whereby the City provides free parking spaces in the facility to the Worcester Sharks as follows: 20 spaces year-round, 25 additional spaces during the hockey season and 25 additional spaces on game nights. There is no expiration date on this Agreement.

- United States Postal Service (USPS) – Agreement dating back to 2004 whereby the City provides 245 spaces to the USPS in the facility on a 24/7 basis to accommodate three USPS shifts at a current rate of $73.51/month or total annual payment of $216,106. This Agreement expires in 2014.

- SMG (DCU Management Company) – Agreement dating back to 2008 whereby the City provides SMG with 50 parking spaces for their staff on a 24/7 basis at a current rate of $63.00/month and up to 50 more for part-time employees during DCU events at $5/space based on actual usage. The Agreement expires on June 30, 2012.

PEARL-ELM STREET GARAGE

- 370 Main Street Associates (MSA) – Agreement dating back to 1999 whereby the City leases 90 to 110 parking spaces in the garage to MSA for tenant use between the hours of 6 a.m. and 6 p.m. each day at a discounted rate – currently $77.00/month. An additional 20 to 30 monthly passes are provided at no additional cost to 370 MSA for

general part-time or second shift employees of UMass Memorial Health Care – a tenant of 370 Main Street. The Agreement terminates on December 31, 2016.

- One Chestnut Place (OCP) – This agreement leased 325 GUARANTIED spaces to OCP. Although the spaces are not reserved by posting, the agreement calls for separate entry way and guarantied entrance into the facility. 325 monthly parking spaces in the facility are leased to the office building owners at OCP for their tenants at a discounted rate of $90/month. This Agreement has expired.

UNION STATION GARAGE

- Massachusetts College of Pharmacy and Allied Health Sciences – Agreement dating back to 2011 whereby the City licenses for use 100 monthly parking spaces to be used by students, faculty and staff of the College at $63.00. College agreed to pre-pay the entire 5-year lease. The Agreement terminates on February 28, 2016.

- Central Massachusetts Regional Planning Commission – Agreement dating back to December 1, 2007 whereby the City provides 30 parking spaces to the Planning Commission as a tenant of Union Station at a rate of $100/month/space in the lease agreement. The Agreement expires in 2017 and provides for two 5-year extensions to 2027.

- Vanasse Hangen Brustlin (VHB), Inc. - Agreement dating back to 2008 whereby the City provides 32 parking spaces to VHB as a tenant of Union Station at a rate of $100/month/space in the lease agreement. The Agreement expires in 2015 and provides for two 3-year extensions to 2021.