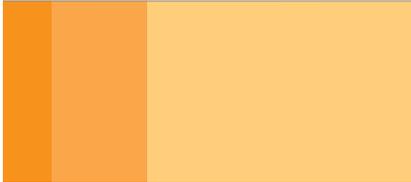


Trenton, New Jersey

# City of Trenton

## Parking System Review



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## Table of Contents

<b>EXECUTIVE SUMMARY</b> .....	<b>I</b>
<b>INTRODUCTION AND STUDY OBJECTIVES</b> .....	<b>1</b>
<b>STUDY AREA</b> .....	<b>2</b>
<b>I. TRENTON PARKING METER SYSTEM</b> .....	<b>2</b>
A. On-Street Parking Inventory .....	2
B. On-Street Parking Meter System .....	5
1. On-Street Meter Zones & Placements .....	5
2. Functional Parking Meters .....	6
3. On-Street Meter Occupancy .....	6
4. Handicapped Parking Abuse at On-Street Meters .....	8
5. New Meter Placements .....	10
6. Parking Meter Rates .....	11
7. Parking Meter Time Limits .....	12
8. Over Time Parking Fines .....	13
<b>II. PARKING SYSTEM ADMINISTRATION AND MANAGEMENT</b> .....	<b>15</b>
A. Management .....	15
B. Parking System Staff .....	16
C. Parking Utility Organizational Chart .....	16
<b>III. PARKING SYSTEM OPERATIONS</b> .....	<b>17</b>
A. Parking Enforcement .....	17
Parking Enforcement Recommendations:.....	19
B. Meter Collection .....	19
Meter Collection Recommendations: .....	20
C. Parking Meter Repairs .....	20
Meter Repair Recommendations: .....	21
D. Parking Facility Maintenance .....	22
E. Signage .....	22
F. Facility Maintenance Cleaning and Litter Removal.....	22
<b>IV. PARKING SYSTEM REVENUE &amp; EXPENSE</b> .....	<b>23</b>
A. Parking System Revenue: 2008- 2014 .....	23
B. Parking Meter Revenue Analysis: 2008- 2014 .....	24
C. Parking System Staff Expense .....	24
D. Parking Revenue & Expense Analysis .....	25
E. Breakeven Analysis .....	26
<b>RECOMMENDATION SUMMARY</b> .....	<b>29</b>
<b>APPENDIX INFORMATION</b> .....	<b>31</b>
A. Parking Technologies .....	31
Single Spaces Standard & Credit Card Enabled Meters and Multi Space Meters .....	31
Recommendations: .....	32
B. Parking Program Communications & Marketing .....	33
Recommendations: .....	33
C. Parking Zone Map.....	35
D. Breakeven Analysis Worksheet .....	35
E. Existing On-Street Parking Map.....	35
F. Proposed On-Street Parking Map.....	35

G. City of Trenton Institutional Map ..... 35

## Figures and Tables

Figure 1: Study Area Map..... 2  
Figure 2: Existing On-Street Meters Map – CBD (690 Meters)..... 4  
Figure 3: Existing On-Street Meters Map – East & South Wards (108 meters)..... 5  
Figure 4: Parking Occupancy by Zone ..... 7  
Figure 5: Non-Handicap & Handicap Parking Occupancy by Zone ..... 8  
Figure 6: Paid & Non-Paid Handicap Parking Occupancy by Zone ..... 9  
Figure 7: Recommended New Meter Installation – CBD (70 meters) ..... 11  
Figure 8: Recommended On-Street Meters Time limits and Rates – CBD (760 meters) ..... 14  
Figure 9: Recommended Parking Utility Organization Chart..... 17

Table 1: List of Existing On-Street Meters – Year 2014 (853 meters) .....3  
Table 2: Meter and Parking Fine Rates .....13  
Table 3: Trenton Parking System Revenue .....23  
Table 4: Parking Utility Salary and Benefits – FYE 2012 .....24  
Table 5: Parking Utility Salary and Benefits – FYE 2015 .....25  
Table 6: Breakeven FYE 2012 through FYE 2015 .....28

## Executive Summary

The City of Trenton Parking Authority engaged Bier Associates, on behalf of the City and the Parking Authority to perform an analysis of the City's Parking Utility and On-street Parking System management and operations. The Scope of the Services included the following:

- Review current parking rates and parking rule structure
- Review parking regulations and time restrictions
- Suggest possible improvements to optimize operations
- Suggest ways to increase the convenience of parking patrons
- Outline potential revenue enhancements
- Recommend demand management solutions
- Provide a guideline for recommended policy options

Based on our review and observations, the City of Trenton Parking System contains approximately **936** parking spaces consisting of approximately **83** off-street metered and permit spaces located in 4 small neighborhood commercial parking lots and **853** on-street metered spaces. There are opportunities to enhance the Trenton Parking System in order to effectively address and fund the present and future parking needs of downtown redevelopment, residents, shoppers, and business owners. This report presents various recommendations that are financially self-supportive, and includes modifications to select on-street parking fees, time limits and enforcement policies. The parking study's recommendations include:

- Enhance parking patron convenience with investment in and implementation of parking technology such as;
  - Convert all existing mechanical/electronic meters to new electronic parking meters
  - Implement pay by cell phone technology for meters in Government/CBD
  - Purchase credit card enabled parking meters for primary meter locations
  - Hang tag permits for neighborhood commercial parking lot monthly parkers
  - Purchase software to manage Resident and Monthly Permit parking systems
  - Consider multi space pay stations for off street parking facilities if needed
  - Insure that all 937 on- and off-street parking meters are functional
- By using appropriate next generation payment technologies to increase convenience and payment options, the City's parking system will become; more user friendly, with more parker payment compliance and increased parking meter revenue. Newer parking technology enables parking trends to be better analyzed by using data generated from the smart parking meter & phone payment technology.
- Adjust Primary Government District & Federal, State and County Courts District parking meter rates from \$1.00 to \$2.00 per hour.
- Discourage handicapped parker abuse by increasing the time limits on State Street and other primary Government/CBD meters to 4 or 8 hours, so that on-street daily parking rates are the same as Trenton Parking Authority off-street parking facilities hourly and daily rates.
- Enforce time limits, to promote parking meter turnover and discourage business owners and

public and private sector employees from utilizing the most convenient on-street parking, thereby making on-street parking available for visitors to state government offices, federal, state and county courts and CBD businesses.

- Maximize the utilization of the City’s existing curb-line by installing additional meters where appropriate and effectively enforcing existing time limits.
- The management of the existing Parking System by the Parking Utility is presently decentralized with several City departments having a role in the management and operation of the Parking System without any entity in charge of management and planning. Enforcement has been tasked to the Police Department. Meter repair and collection is assigned to the DPW, Traffic and Signals Division. Meter coin is deposited and accounted for by the Tax Collections and Finance Department.
- Improve parking management and operations by centralizing all parking management functions within the Parking Utility or Parking Authority. The City’s Parking System both on and off-street is best managed and operated by a single point of responsibility centered within the City government that has full authority to plan, manage, and implement parking policies and initiatives.
- Upgrade the appeal and user experience of off-street parking lots to complement neighborhood revitalization efforts. City parking lot provides users with a lasting image of the City. It is critical that neighborhood commercial district parking lots be safe, clean and attractive.
- The City must repair and upgrade the neighborhood parking lots including; meter replacement, lighting, signage, repair or repave asphalt drive surfaces, repair or replace curbs, restripe parking stalls, provide litter patrols and maintain landscaping in all public parking lots.
- The City of Trenton must consider ways to generate and enhance parking revenues to support the maintenance, upkeep and capital improvements for existing and future parking facilities.
- Specific parking recommendations include:
  1. Adjusting State Street and other primary Government Center on-street parking meters rates from \$1.00 to \$2.00 per hour.
  2. Change Time Limit of Primary and Secondary Government Center parking meters from 1 and 2 hours to 4 hours and 8 hours.
  3. Enforce Handicapped Parker maximum fee compliance at on-street parking meters
  4. Promote the consistent enforcement of fee compliance at on-street meters.
  5. Install additional on-street meters where appropriate near the County Courts and Hughes Justice Complex.

The implementation of these recommendations for adjustments to; parking meter time limits, and meter rates, as well as revisions to the management of the parking permit system outlined in this report, are projected to generate additional revenue which in turn can fund parking system enhancements, parking facility repairs, dedicated parking personnel, and new parking meter equipment.

## Introduction and Study Objectives

The Parking Authority (Authority) retained Bier Associates to perform an analysis of the City’s Parking Utility and On-Street Parking System and to propose recommendations to improve operations and management.

These recommendations are intended to:

1. Enhance parking patron user convenience.
2. Maximize the utilization of the parking assets.
3. Optimize operations and management.
4. Provide parking for local businesses and residents.
5. Generate adequate revenue to cover operating and capital maintenance expenses.

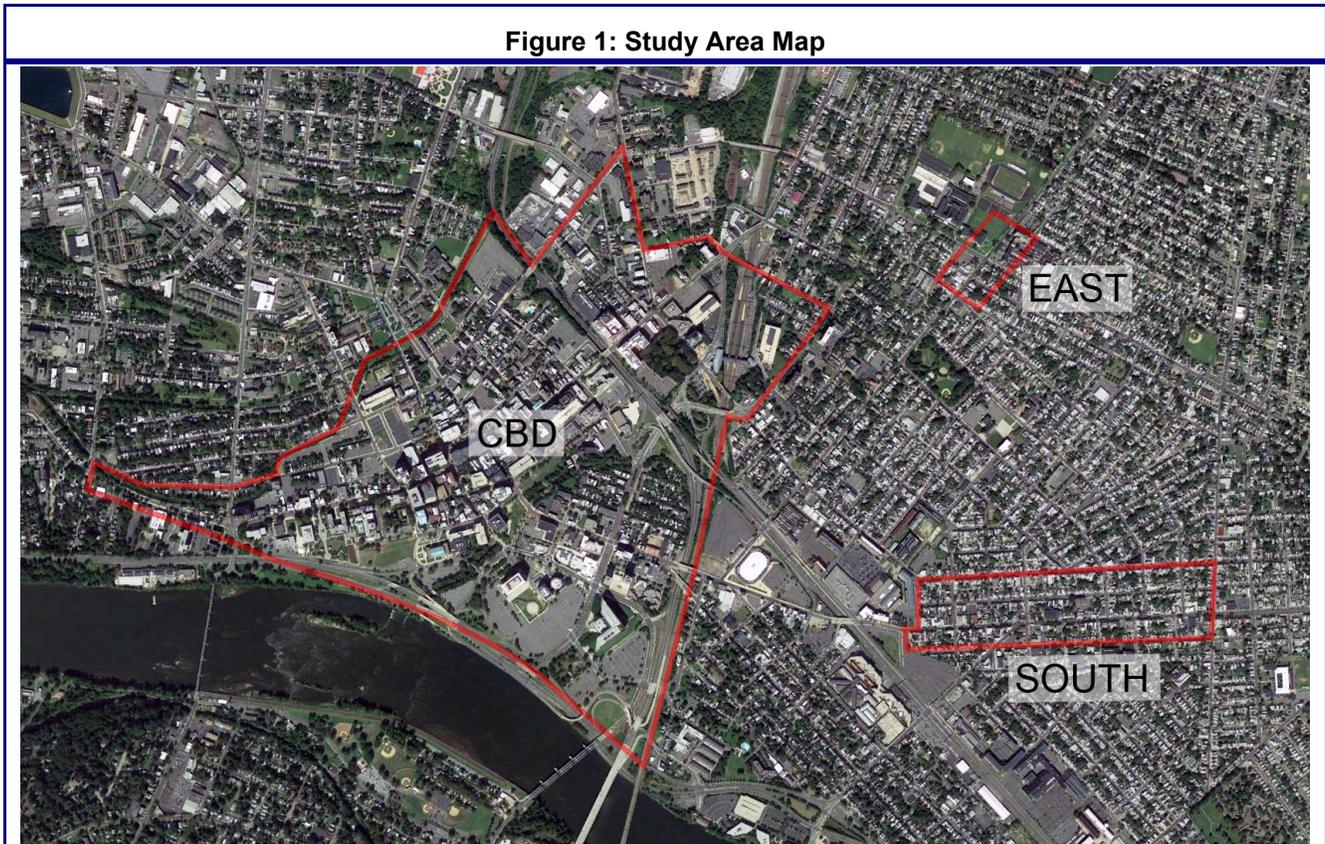
A well-managed and operated municipal Parking System is a critical municipal service and part of the City’s infrastructure which acts as a catalyst for Central Business District and Neighborhood redevelopment and revitalization. A properly managed parking system promotes the free flow of traffic, pedestrian safety, enhances the residential quality of life, and provides convenient parking to support local businesses.

In order to achieve the goals and objectives of this study, Bier Associates conducted the parking assessment through several site visits and observations of the City’s parking assets both on and off street. Bier Associates held a meeting with City Police representatives and phone conference call with other city departments to discuss parking system functions and downtown parking issues. This report provides recommendations to improve downtown parking policies, strategies, and operations with the intent of accomplishing the following:

- Maximize the utilization of the parking assets for various user groups through varied pricing of on-street meter, promote turnover and the addition of on-street parking meters.
- Centralize parking operations to improve management responsiveness and maximize revenues.
- Consideration of providing a higher level of parking patron comfort and convenience with upgraded parking payment technology and parking lot improvements
- Consideration of parking fee adjustments to generate additional revenue to support the enhancement of the municipal Parking System through rate adjustments, permit parking, additional on-street meter placements and consistent enforcement of meter hours in the CBD and Neighborhood districts.

## Study Area

This study focused primarily on on-street parking meters in the Central Business Districts (CBD), and neighborhood commercial districts in the East and South Wards of the City. Figure 1 illustrates the study area for this research.



Source: Google Earth Map and Bier Associates, 2014.

In addition, a map of the City of Trenton prepared by the State’s Treasurer’s Office with the location of Government Buildings, Points of Interest, and Off-Street Parking Facilities was included in this study for reader reference purposes. (See Appendix C)

### I. Trenton Parking Meter System

The City of Trenton Parking Meter System consists of approximately **936** on and off-street metered parking spaces. On-street metered parking spaces consist of approximately **853** parking spaces. Off-street meter spaces, in four (4) neighborhood parking lots comprise **83** parking spaces. On-street parking meter rates are \$0.50 and \$1.00 per hour. Currently, on-street parking meter time limits are 30 minutes, 1 hour and 2 hours.

#### A. On-Street Parking Inventory

Surveys of the City’s on-street parking meters were conducted by engineering student interns (Intern Group) in 2009, 2012 and 2014 to verify the Inventory of on-street parking metered spaces.

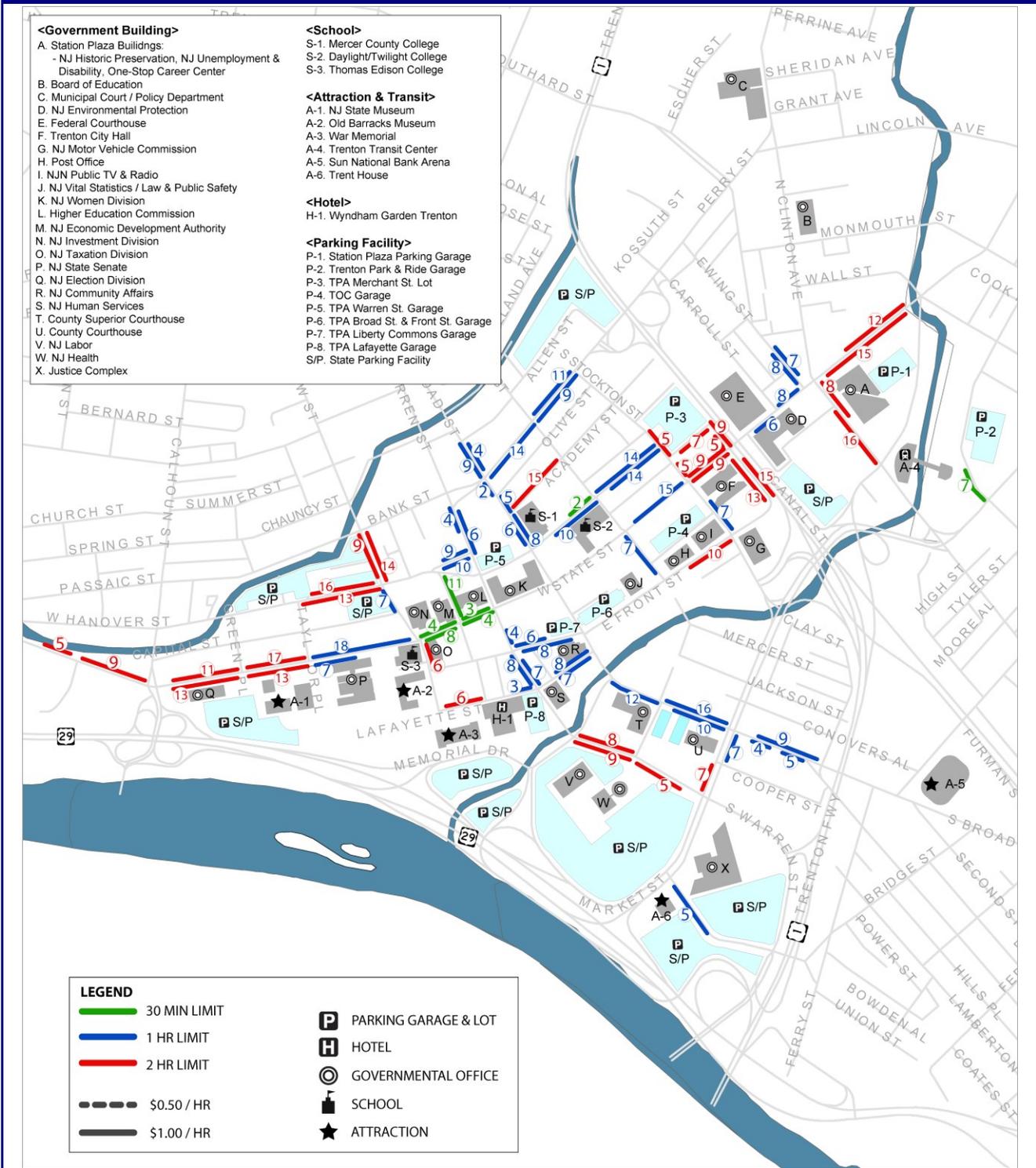
The public parking inventory/supply in the study area including on-street meters and off-street parking lots totals approximately 936 parking spaces. The study area encompasses 853+/- On-Street parking meter spaces. Table 1 lists the number of existing on-street parking meter spaces, time limit and hourly fee by street in the study area.

<b>Street</b>	<b>Meters</b>	<b>Time Limit</b>	<b>Rate / Hour</b>
Academy St.	17	2HR	\$1.00
Armory Dr.	29	2HR	\$1.00
Beatty St.	8	1HR	\$0.50
Chancery Ln.	12	30MIN	\$1.00
E Front St.	24	1HR / 2HR	\$1.00
E Hanover St.	48	30 MIN / 1HR	\$1.00
E State St.	74	30 MIN / 1HR / 2HR	\$1.00
Ewing St.	15	1HR	\$1.00
Hamilton Ave. (East Ward)	34	1HR	\$0.50
Lafayette St.	24	1HR / 2HR	\$1.00
Market St.	14	2HR	\$1.00
Merchant St.	12	2HR	\$1.00
N Broad St.	37	1HR	\$1.00
N Warren St.	19	1HR	\$1.00
N Willow St.	39	1HR / 2HR	\$1.00
Perry St.	38	1HR	\$1.00
Stockton St.	18	1HR / 2HR	\$1.00
S Broad St. (CBD)	16	1HR	\$1.00
S Broad St. (South Ward)	108	1HR	\$0.50
S Clinton Ave.	28	2HR	\$1.00
S Montgomery St.	7	1HR	\$1.00
S Warren St.	39	1HR / 2HR	\$1.00
W Canal St.	9	2HR	\$1.00
W Hanover St.	54	1HR / 2HR	\$1.00
W State St.	118	30MIN / 1HR / 2HR	\$1.00
Walnut Ave.	7	30MIN	\$1.00
William Trent.	5	1HR	\$1.00
<b>Total</b>	<b>853</b>		

Source: City of Trenton Parking Authority and Bier Associates, 2014.

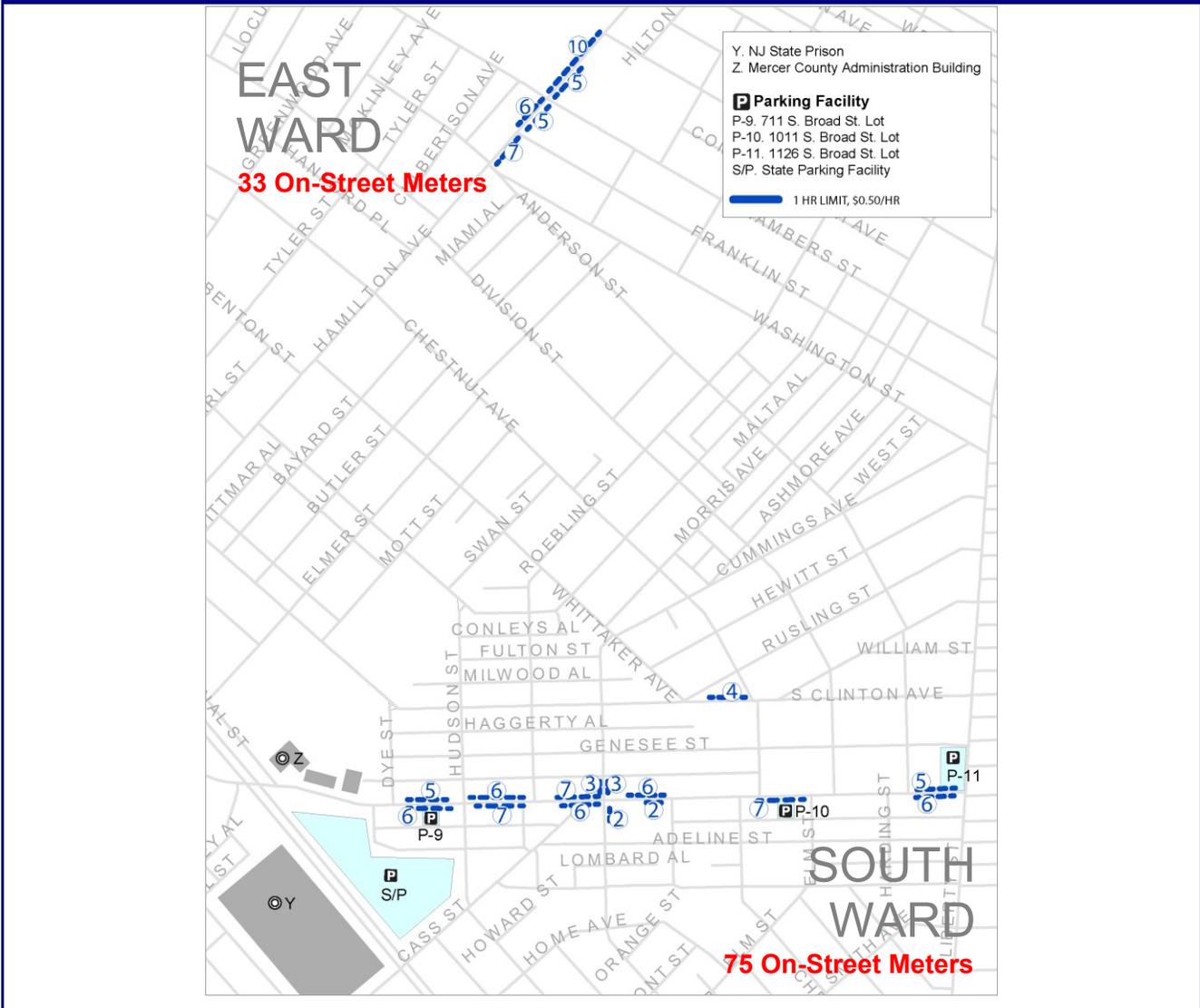
Figures 2 and 3 illustrate the existing on-street parking meters in the study area. Figure 2 focuses on the CBD. Figure 3 highlights neighborhood commercial areas in the East and South Wards of the City. The number of meters on the maps does not include missing heads and poles parking spaces.

**Figure 2: Existing On-Street Meters Map – CBD (690 Meters)**



Source: City of Trenton Parking Authority and Bier Associates, 2014.

**Figure 3: Existing On-Street Meters Map – East & South Wards (108 meters)**



Source: City of Trenton Parking Authority and Bier Associates, 2014.

## B. On-Street Parking Meter System

### 1. On-Street Meter Zones & Placements

The **853** on-street parking meter installations can be divided into three (3) categories:

- |  |                   |
|--|-------------------|
| 1) Government & CBD                    | <b>344</b> spaces |
| 2) Secondary Government                | <b>266</b> spaces |
| 3) Neighborhood Business & Residential | <b>243</b> spaces |

Government & CBD meters are located in the streets with frontage or adjacent to significant government institution buildings, such as: State House, DCA, Labor & Industry, DEP, County & Federal Courts, Hughes Justice Complex, Train Station, etc.

Secondary Government meters are located behind, and one or two block(s) walking distance from government buildings where government employees or staff, and frequent visitors to the institutional buildings park rather than using free state provided employee parking spaces or to avoid payment of TPA parking garage fees.

Neighborhood Business & Residential meters located outside the Government & CBD, as well as Secondary Government areas, can be found on Perry Street, E Ward streets and S Ward streets.

Distinguishing the characteristics of the areas in which on-street parking meters are located is important to understand the needs of parkers using these resources as well as for setting time limits and adjusting parking rates.

## 2. Functional Parking Meters

The number of on-street parking spaces counted by the 2014 Intern Group that are supposed to be regulated by parking meters was **853** spaces, see Table 1. The 2014 Intern Group coin tested **776** on-street parking meters, with complete assemblies, to determine meter functionality.

The number of on-street parking meters, with complete assemblies; poles, heads and coin mechanisms observed in 2009, 2012 and 2014 were as follows:

Year 2014	<b>741</b> meter spaces	(86.8% of 854 meter spaces)
Year 2012	<b>776</b> meter spaces	(90.9% of 854 meter spaces)
Year 2009	<b>798</b> meter spaces	(93.4% of 854 meter spaces)

As of August 2014, of the City had **853** on-street parking spaces intended to be regulated by meters, **783** had complete parking meter assemblies. **694** or 80.8% of the entire on-street parking meter system was functional. 2014 Intern Group observed that **159** parking metered spaces out of the **853** metered parking system were out of service. Broken meters or malfunctioning meters accounted for **137** of the **159** out of service parking spaces. **89** parking meter spaces had intact meter heads and bodies, but were inoperable. **48** metered spaces had missing meter poles and/or meter heads. **22** on-street meter spaces had been diverted to Reserved Parking for State of NJ Human Services Police vehicles.

## 3. On-Street Meter Occupancy

The Scope of Services by Bier Associates did not include parking occupancy counts. However, the 2014 Intern Group was repurposed by Bier Associates, trained and directed to conduct 1 day parking occupancy counts of the City's on-street parking meters. Bier Associates prepared the Parking Data Collection forms and set up the Parking Observation Zones for the Intern Group. A map of the Parking Observation Zones and detailed hourly parking occupancy information collected by the 2014 Intern Group can be found in Appendix C of the Report.

Parking occupancy observations were conducted by the 2014 Intern Group, in the summer for 1 week from Tuesday, July 29<sup>th</sup> to Friday, August 1<sup>st</sup>, 2014. Parking occupancy data, collected by the 2014 Intern Group, is not relevant for purpose of projecting the City's peak seasonal parking demand, since the Intern Group's observations were conducted in the summer when the legislature is not in session, lobbyist and visitor parking activity is low and many state employees are on vacation.

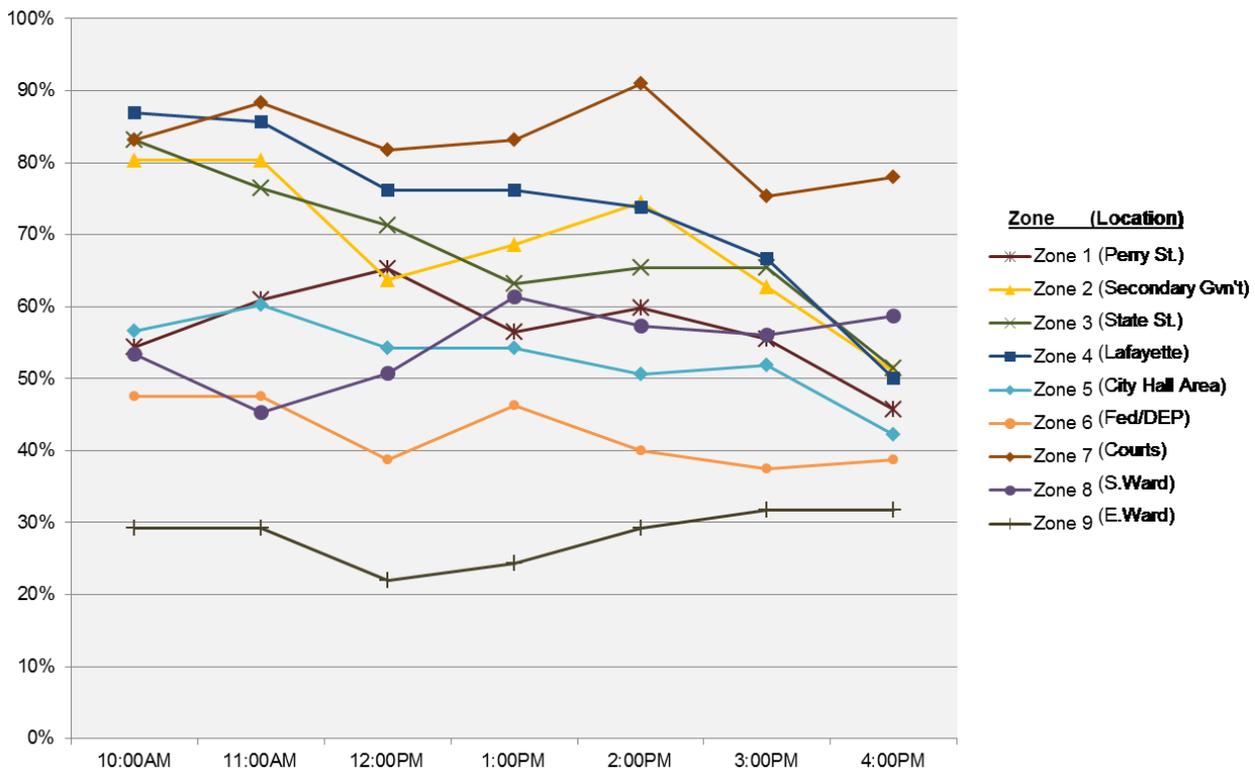
According to the 2014 Intern Group summer survey citywide on-street parking meter peak

occupancy was **566** spaces out of a total of **854** spaces (**66%**), which occurred from 10AM to 11AM.

Throughout the survey day, the nine (9) zones observed a parking occupancy range of **29%** to **87%**. Figure 5 depicts the average occupancy as well as the parking occupancy fluctuation of each zone from 10AM to 4PM on the survey days.

**Figure 4: Parking Occupancy by Zone**

	Total Meter Space	Functional Meter Space	Average Occupancy	Occupancy											
				10:00AM	11:00AM	12:00PM	1:00PM	2:00PM	3:00PM	4:00PM					
<b>Zone 1</b>	92	75	52 57%	50 54%	56 61%	60 65%	52 57%	55 60%	51 55%	42 46%					
<b>Zone 2</b>	102	80	70 <b>69%</b>	82 <b>80%</b>	82 <b>80%</b>	65 64%	70 69%	76 <b>75%</b>	64 63%	52 51%					
<b>Zone 3</b>	136	114	93 <b>68%</b>	113 <b>83%</b>	104 <b>76%</b>	97 <b>71%</b>	86 63%	89 65%	89 65%	70 51%					
<b>Zone 4</b>	84	71	62 <b>74%</b>	73 <b>87%</b>	72 <b>86%</b>	64 <b>76%</b>	64 <b>76%</b>	62 <b>74%</b>	56 67%	42 50%					
<b>Zone 5</b>	166	115	88 53%	94 57%	100 60%	90 54%	90 54%	84 51%	86 52%	70 42%					
<b>Zone 6</b>	80	69	34 42%	38 48%	38 48%	31 39%	37 46%	32 40%	30 38%	31 39%					
<b>Zone 7</b>	77	63	64 <b>83%</b>	64 <b>83%</b>	68 <b>88%</b>	63 <b>82%</b>	64 <b>83%</b>	70 <b>91%</b>	58 75%	60 78%					
<b>Zone 8</b>	75	74	41 55%	40 53%	34 45%	38 51%	46 61%	43 57%	42 56%	44 59%					
<b>Zone 9</b>	41	33	12 28%	12 29%	12 29%	9 22%	10 24%	12 29%	13 32%	13 32%					
<b>Total</b>	<b>853</b>	<b>694</b>	<b>515 60%</b>	<b>566 66%</b>	<b>566 66%</b>	<b>517 61%</b>	<b>519 61%</b>	<b>523 61%</b>	<b>489 57%</b>	<b>424 50%</b>					



Source: City of Trenton Parking Authority and Bier Associates, 2014.

Zones 2, 3, 4 and 7 averaged 76.5% occupancy and experienced the highest parking occupancy levels in the CBD between 71% and 90% from 10AM to 2PM during the 2014 Intern Group survey.

Zone 7, adjacent to the Mercer County Courts and Administration Building, with 78 metered parking spaces and 64 functional meters had an average of 66 vehicles parked, equaling 84.4% occupancy from 10AM to 2PM.

Zone 4, Lafayette Street near the CBD, hotel, restaurants, and Human Services Building with 84 metered parking spaces and 71 functional meters had an average of 67 vehicles parked, equaling 79.8% occupancy from 10AM to 2PM.

Zone 3, State Street near the State House, Thomas Edison College, State Museum, State departments and lobbyist offices with 136 metered parking spaces and 114 functional meters had an average of 98 vehicles parked, equaling 85.8% occupancy from 10AM to 2PM.

Zone 2, northwest from intersection of State and N. Warren Streets, behind State administrative offices and lobbyist offices located on State Street with 102 metered parking spaces and 80 functional meters had an average of 75 vehicles parked, equaling 73.5% occupancy from 10AM to 2PM.

**4. Handicapped Parking Abuse at On-Street Meters**

Anecdotal information from Trenton stakeholders as well as visual observations by Bier Associates raised the question of the degree to which handicapped parking at on-street meters affects the availability of on-street parking spaces for visitors to Trenton. The 2014 Intern Group was tasked by Bier Associates to conduct parking meter occupancy counts and to observe handicapped parker occupancy and parking meter payment compliance.

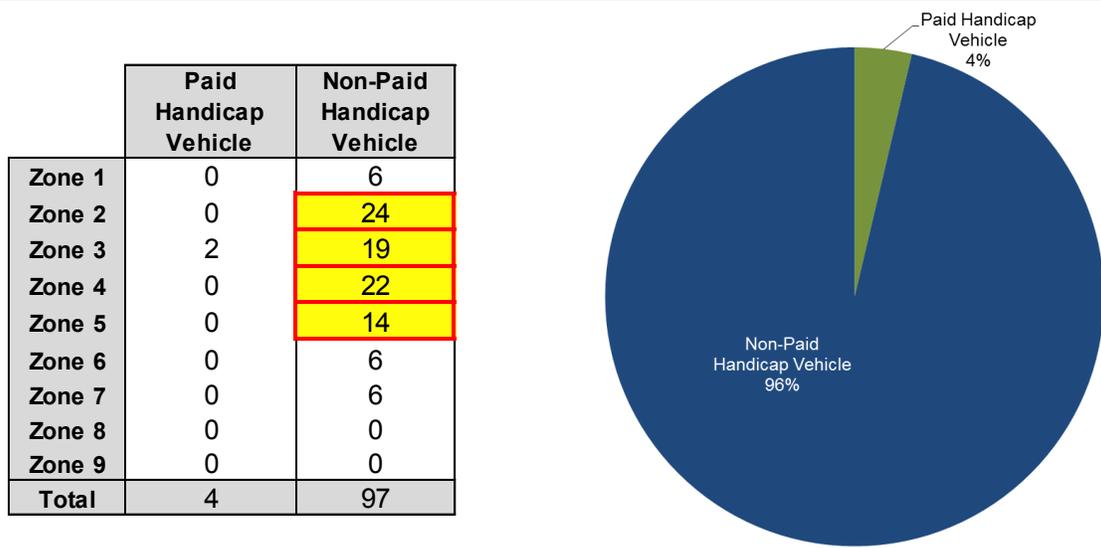
It is a popular misconception nationally and in the state of New Jersey that a handicapped license plate, placard or hangtag exempts a handicapped parker from the payment of parking meter fees both on- and off-street. Figures 5 and 6 illustrate the handicap parking conditions observed within the City by Zone during the 2014 Intern Group survey.

**Figure 5: Non-Handicap & Handicap Parking Occupancy by Zone**

	Average Occupancy	Average Non-Handicap Occupancy		Average Handicap Occupancy	
<b>Zone 1</b>	52	46	87%	7	13%
<b>Zone 2</b>	70	46	65%	24	35%
<b>Zone 3</b>	93	72	78%	21	22%
<b>Zone 4</b>	62	40	64%	22	36%
<b>Zone 5</b>	88	73	84%	14	16%
<b>Zone 6</b>	34	28	81%	6	19%
<b>Zone 7</b>	64	58	91%	6	9%
<b>Zone 8</b>	41	41	99%	0	1%
<b>Zone 9</b>	12	11	98%	0	2%
<b>Total</b>	515	414	80%	101	20%

Source: City of Trenton Parking Authority and Bier Associates, 2014.

**Figure 6: Paid & Non-Paid Handicap Parking Occupancy by Zone**



Source: City of Trenton Parking Authority and Bier Associates, 2014.

New Jersey Motor Vehicle Statute NJSA 39:4-207 allows a handicapped parker to park “Overtime” at a metered space for up to 24 hours following the expiration of the parking meter. The State of New Jersey, Division of Disability Services in its 3<sup>rd</sup> Edition Guide to Accessible Parking, published July 2013, on page 6, in the “Question & Answer” section states as follows:

*Q: Is a person with a wheelchair symbol license plate/placard required to deposit money when parking at a metered space?*

*A: Yes. When parking at a metered space, a driver with a disability placard/license plate must put the appropriate amount of money in the meter. If the vehicle will occupy the space for more than the maximum amount of time allotted on the meter, the driver must fill the meter to maximum amount allowed. This will permit the vehicle to occupy the space for up to 24 hours without having to come back and refill the meter. A municipality may require the vehicle to vacate the space after 24 hours.*

The average number of vehicles parked at on-street parking meter spaces, observed by the 2014 Intern Group, was **515**. The number of vehicles displaying some type of handicapped parking credential was **101**. Handicapped parkers accounted for approximately **20%** of system wide on-street parking meter occupancy.

In Zones 2, 3 and 4, which are primary and secondary Government Center locations, on average **225** vehicles were parked on-street in metered spaces of which **67** or approximately **30%** were vehicles with handicapped credentials.

System wide, of the **101** vehicles with the handicapped credentials parked at on-street metered spaces, only **4** vehicles had paid the meter. In Zones 2, 3 and 4, of the **67** handicap vehicles parked at meters, and only **2** had paid the meter.

Clearly, the City’s parking meter system is experiencing massive handicapped parking abuse with virtually zero parking meter payment compliance.

**Recommendation:**

The City should perform a NJDMV credential check in the morning as handicapped parkers pull into metered parking spaces to verify that the vehicle operator is in fact the person to whom the handicapped hang tag or license plate has been issued, and that the hang tag has not expired. A license plate audit should be performed to determine how many of the handicapped parkers are employees of the State and County, who have been provided with free parking by their employers but chose to occupy on-street parking meters without payment. Lastly, handicapped parker should be informed that they are obligated to pay the maximum allowable time permitted by the meter, before they are permitted by state law to remain at the meter for an additional 24 hours without payment. Handicapped parkers should be provided with a copy of the State of NJ 3<sup>rd</sup> Edition Accessible Parking Guidebook, which clearly states that handicapped parking is not free.

**5. New Meter Placements**

While conducting field work, Bier Associates observed the opportunity to convert 57 legal curbside parking spaces, adjacent to the Mercer County Court and Administration Buildings and the Hughes Service Complex, into metered parking spaces.

- Market Street, north and south sides, between S. Warren Street and West Trent Place, 24 parking meter spaces.
- Market Street, north and south sides, between S. Broad and S, Warren Street, 9 parking meter spaces. Poles are already installed.
- Cooper Street, east side only, between Market Street and RT 1, 24 parking meter spaces.



Missing Meter Heads at Market Street



Potential On-Street Meter Location at Cooper Street

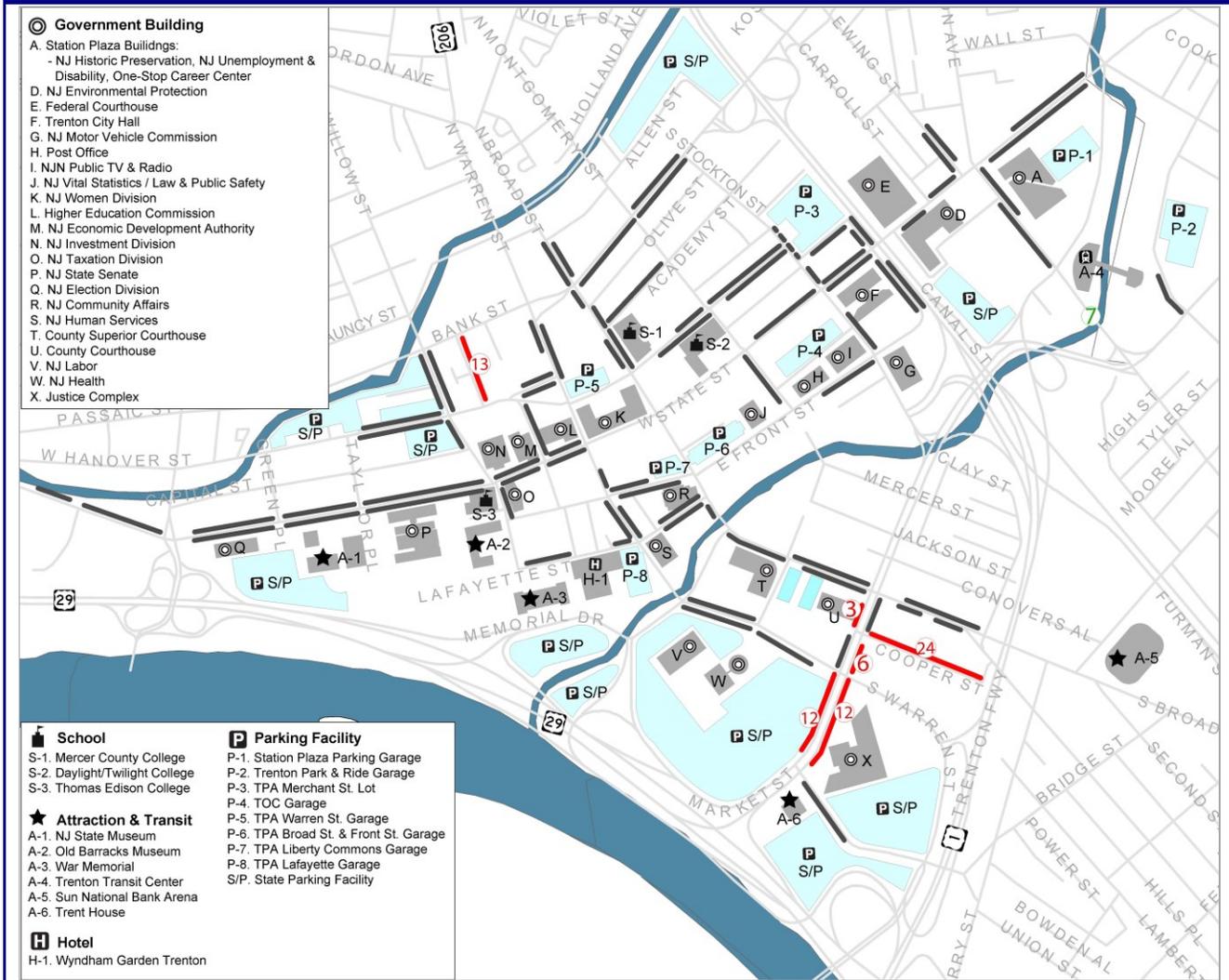
Another opportunity for parking meter installations in a well located area is 13 curbside parking spaces on Barnes Street, west side only, between Bank and W. Hanover Streets. Barnes Street currently has signs restricting on-street parking to City Employee Permits Only. The on-street parking restriction is a holdover from when the City had offices nearby on W. State Street. City employees no longer utilize these parking spaces and they are empty.



City Employee Only Parking at Barnes Street

The red lines and numbers in Figure 7 indicate the location and number of new meters recommended in this study.

**Figure 7: Recommended New Meter Installation – CBD (70 meters)**



Source: City of Trenton Parking Authority and Bier Associates, 2014.

## 6. Parking Meter Rates

On-street and off-street parking meter rates were revised by the City Council in 2009. All **727** CBD meters in the primary and secondary zones are \$1.00 per hour. Off-street parking meters in the East and West Ward neighborhood parking lots are \$0.75 per hour. **126** on-street parking meters in the East and West Ward neighborhoods are \$0.50 per hour.

On-street parking meter revenue from FYE 2008 to FYE 2014 ranged from a low of **\$184,059** in FYE 2014 to a high of **\$246,631** in FYE 2011. Parking meter revenues in FYE 2013 and 2014 averaged approximately **\$185,000** and were **\$38,000** less than the prior 5 year (FYE 2008 to 2012) average of **\$223,789**.

Possible explanations for the FYE 2013 and 2014 decline in parking meter revenue are; lack of parking meter enforcement for overtime parking violations, **137** inoperable or missing meters and

**97** handicapped vehicle parking occupancy without payment of meter fees at on-street meters in the Government CBD.

There are approximately **398** income producing parking meters in the primary and secondary zones of the CBD. These CBD parking meters produce approximately **\$416** per meter, per year. Daily meter revenue is **\$1.81** per meter based upon a **\$1.00** per hour parking rate resulting in CBD, paid parking compliance of approximately **1 hour and 49 minutes** per day.

The City needs to consider adjusting the CBD parking rate from **\$1.00** to **\$2.00** per hour at **412** primary on-street meter locations. The reasons for adjusting the primary CBD parking meter rates are as follows:

- Deter vehicles with handicapped credentials from parking meter abuse
- Promote turnover of centrally located on-street parking meters
- Provide funds to operate parking system
- Provide funds to replace obsolete parking equipment
- Provide funds for parking system capital improvements

Raising CBD primary meters to **\$2.00** per hour is consistent with off-street parking rates charged by the Parking Authority and others in CBD parking garages. The **\$2.00** per hour parking rate will make primary on-street parking meters financially unattractive for parking durations in excess of 2 hours, thereby deterring all day parking and thus promoting parking space turnover and availability.

The **\$1.00** per hour parking meter rate in the CBD secondary zone areas is appropriate and should not be modified. The **\$0.50** per hour parking rate for the East and West Ward on-street meters is appropriate and should not be modified.

The **\$0.75** per hour parking rate for East and West Ward parking lots should be reduced to **\$0.50** per hour, the same rate as the on-street parking meters, to promote better utilization.

## **7. Parking Meter Time Limits**

Normally, the parking time limit recommendations for primary CBD on-street parking meters are durations of 30, 60 and 90 minutes to promote turnover and parking space availability. However, in the City of Trenton because of the widespread public parking abuse by vehicles with handicapped credentials, it is necessary to lengthen parking durations from 1 and 2 hours to 4 and 8 hours and increase primary parking rates to promote parking space turnover.

Vehicles with handicapped credentials are permitted by NJ state law to park at a parking meter for a 24 hour period, after paying the meter for the maximum time that the meter allows. Consequently, it is necessary to increase the time limit and the rate charged for primary parking meters so that within 3 or 4 hours the vehicle will pay the same rate as an off-street parking facility.

Adjusting primary CBD on-street parking meters to **\$2.00** per hour and 4 hour durations will result in on-street parkers paying **\$8.00** for 4 hours of on-street parking at primary CBD meters. The **\$8.00** four hour parking rate should act as a deterrent to state employee or lobbyist vehicles with handicapped credentials

Secondary CBD meters, 1 block off the main streets should be increased from 1 and 2 hours to 8 hours. Many of these meters serve visitors to institutional destinations that require a longer length of stay. By increasing the time limits, the City will minimize public parking abuse by state employee or

lobbyist vehicles with handicapped credentials. If any individuals wish to pay **\$1.00** per hour up to a maximum of **\$8.00** to park throughout the business day, they may do so.

Perry Street, East and West Ward Neighborhood parking meter time limits are 1 hour and the time limit is sufficient to promote parking turnover. Vehicles with handicapped credentials are not a substantial problem in these local neighborhood parking environments.

East and West Ward Neighborhood off-street parking meter time limits should be up to 4 hours to encourage business owners and their employees to use off-street lots and not to meter feed on-street meters. This is also why a parking rate reduction from **\$0.75** to **\$0.50** for off-street parking lot meters is recommended.

### 8. Over Time Parking Fines

Parking fines for local parking ordinance violations, such as overtime parking and Title 39 motor vehicle offenses are shared by the municipality with the State of New Jersey. Statutory assessments are deducted from each parking summons collected by the Municipal Court in the amount of **\$11.50** for enhanced penalties.

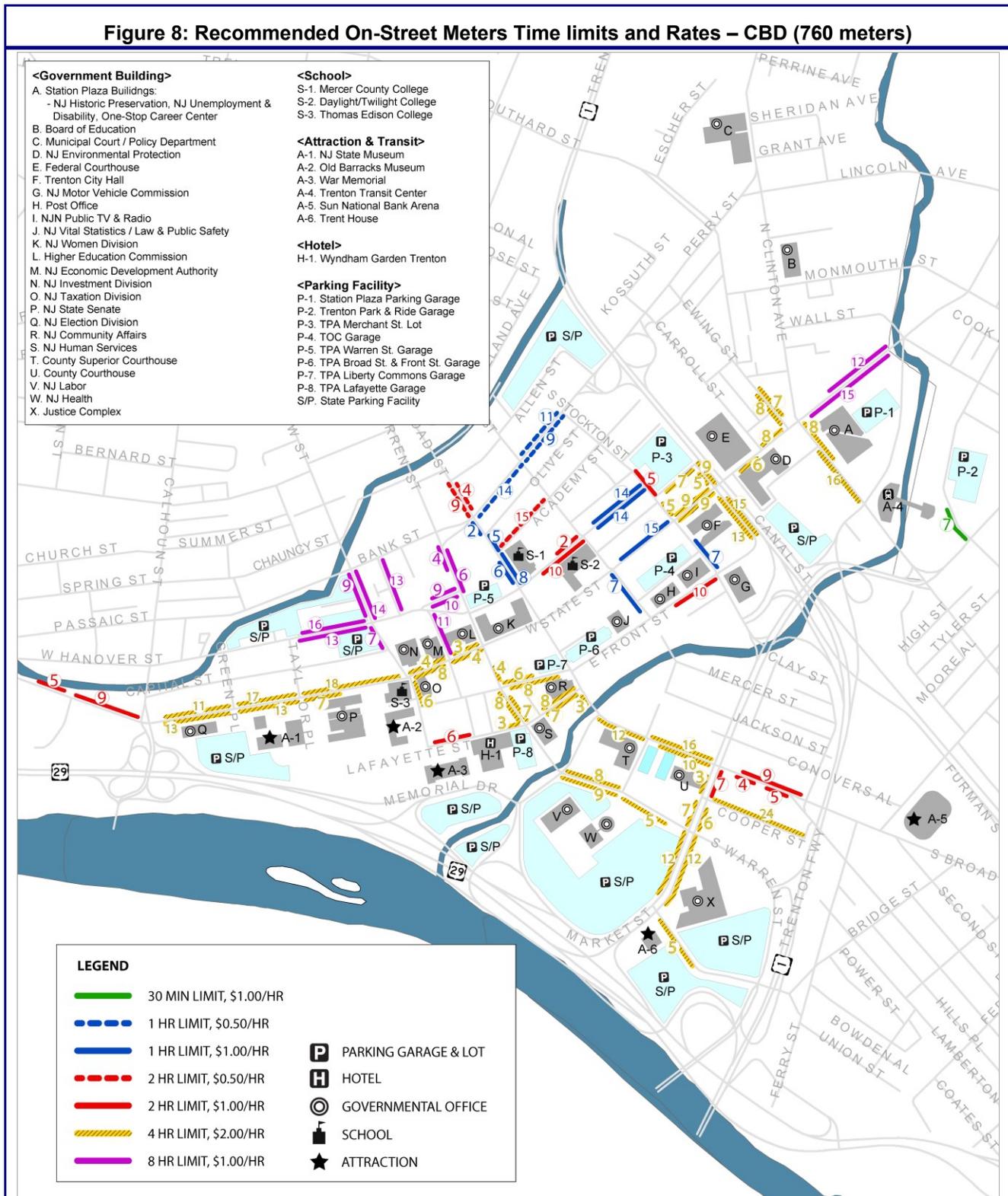
Bier Associates conducted the below survey of parking fines for similar cities and county seats for comparison with those charged by the City of Trenton. *Trenton’s local ordinance overtime parking fine is higher than all county seats surveyed.* It is not recommended that the City of Trenton change its parking fine schedule at this time.

**Table 2: Meter and Parking Fine Rates**

Town	Over Time	Meter Feeding	General Prohibited	1/Hr. CBD On-Street	1/Hr. Off-Street
<b>Trenton</b>	<b>\$47.00</b>	<b>\$47.00</b>	<b>\$55.00</b>	<b>\$1.00</b>	<b>\$0.75</b>
Paterson	\$20.00	N/A	\$50.00	<b>\$1.00</b>	\$1.00
Camden	<b>\$29.00</b>	N/A	\$34.00	\$1.00	N/A
New Brunswick	<b>\$35.00</b>	\$35.00	\$47.00	\$1.25	\$1.25
Elizabeth	\$39.00	\$39.00	\$39.00	<b>\$1.00</b>	\$1.00
Newark	\$45.00	\$35.00	\$35.00	\$1.00	N/A
Passaic	<b>\$27.00</b>	N/A	\$53.00	<b>\$0.75</b>	\$0.75
Jersey City	<b>\$29.00</b>	\$29.00	\$42.00	\$0.75	\$0.75
<b>Average</b>	<b>\$33.88</b>	<b>\$37.00</b>	<b>\$44.38</b>	<b>\$0.97</b>	<b>\$0.92</b>
<b>Median</b>	<b>\$32.00</b>	<b>\$35.00</b>	<b>\$44.50</b>	<b>\$1.00</b>	<b>\$0.88</b>

Source: City of Trenton Parking Authority and Bier Associates, 2014.

Figure 8 depicts the recommended time limits and rates for on-street meters within the CBD.



Source: City of Trenton Parking Authority and Bier Associates, 2014.

## II. Parking System Administration and Management

### A. Management

Virtually all municipalities recognize the importance of providing on and off-street parking for residents, visitors, shoppers and persons employed within their cities. However, not every municipality realizes the importance of integrating all aspects of providing public parking within the framework of a “Parking System”.

In Trenton, key elements of the parking system are decentralized and various parking functions are performed by individual departments within the city government and the Parking Authority.

1. Parking Enforcement is performed by Municipal Parking Enforcements Officers under the supervision of the Police Department and are included in the Police Budget.
2. Meter Collection, Maintenance, and Repair is performed by employees, under the supervision of DPW Traffic Division and included in the Parking Utility Budget.
3. Parking Meter coin, after collection, is held by the Tax Collector and transferred to an armor car service for counting and bank deposit.
4. Parking Revenue, which includes; parking leases, parking lot revenue and meter coin is accounted for by the Finance/Treasurer’s Department.
5. Facility Maintenance and Repair is the responsibility of the Department of Public Works.
6. Sign and Meter Pole Replacement is the responsibility of the Department of Public Works.
7. Director of Public Works prepares the Parking Utility’s Annual Budget, which is approved by the City Administrator.
8. Meter Placement, On-Street Parking Meter Fees and TPU Parking Lot Rates are set by Ordinance of the City Council.
9. Off-street Parking Facilities (garages & lot) are operated by the Trenton Parking Authority.

When parking functions are divided between multiple city departments, no single department or manager has the full authority to plan, supervise, and operate municipal parking services. Due to this lack of centralization, there is less master planning, performance analysis, and control of the entire parking system and operations.

For example, if parking revenues decrease in a certain area it is difficult to pinpoint the reason for the decline. A decrease in parking revenue can be attributed to; lack of enforcement in a particular meter zone, unsatisfactory condition of a parking facility, construction projects that eliminate on-street parking meters, etc. In addition, it is difficult to monitor and assess performance by personnel providing parking services as they also perform non-parking related duties. Finally, there is limited ability to take corrective action since supervision is fragmented.

The efficient and effective way to provide parking services to municipal residents and the public at large is via a **Unified Parking System**. In this context the term “Parking System” means the delivery of municipal parking services to the public by a single government entity charged with the responsibility of planning, managing, and operating all components or functions (planning, pricing, management, enforcement, collection and repair) of on and off-street parking services.

Effective Parking System administration and management includes:

- Communication of the Mission, Goals and Objectives of the Parking System
- Single point of responsibility
- Regular assessment of parking strategies
- Guidelines and policies
- Consistent parking enforcement
- Proper maintenance of parking equipment and facilities
- Commitment to customer service

## **B. Parking System Staff**

As noted in Section II – A of the report *“Parking Management”*, the Trenton Parking Utility does not have a Director or an Operations Manager/Supervisor. The TPU’s FYE 2012 Budget was the last time that the Parking Utility included all operational field personnel; Parking Meter Collectors and Maintenance Repairer with Parking Enforcement Officers (PEOs) within the same budget. The 2012 Budget included (2) Meter Collector/Repairers, (1) Maintenance Repairer and (4) PEO, with a combined budgeted salary and wage expense of \$331,968 and a total employment cost of approximately \$451,692 which includes all employee taxes, pension and health care.

In the opinion of Bier Associates, field staff consisting of seven (7) members is an appropriate number of personnel to accomplish the current mission of the Parking Utility to enforce, collect and repair the existing on-street parking meters and off-street parking lots owned or operated by the Parking Utility.

During FY-2013 four (4) PEOs at an average salary of \$45,062 each, were transferred to the Police Department. The four (4) PEO salaries of \$180,248+ and other employment and benefit costs were included in the FYE 2013 Police Budget. Based on an October 2014 interview with the Police Department, two (2) of the budgeted 4 PEOs are on active duty. One PEO has retired and another PEO is on sick leave. The Police Department does intend to fill the open PEO position resulting from staff retirement. PEO vacancies will be filled by the Policy Department at lower starting salaries.

Based on a November 2014 phone interview with the DPW Traffic Division, the Division’s recommendation for the Parking Utility’s FYE 2015 Budget is to eliminate the Maintenance Repairer position as a TPU budgeted position. It was felt that the Maintenance Repairer civil service job description was better suited within the DPW’s organizational structure.

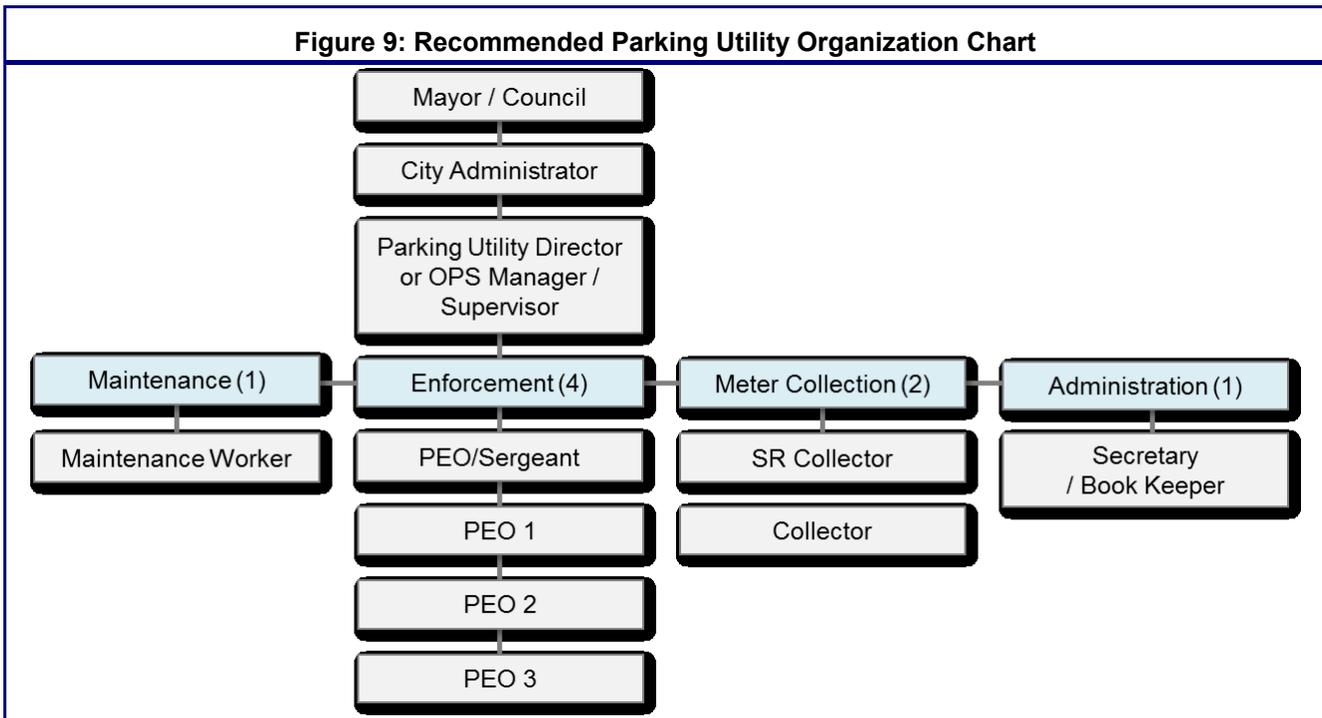
The job functions and duties of each operations field position is discussed in Section III of the report *“Parking Operations”*. The financial impact and cost benefit analysis of field operation staff and other recommended Parking Utility personnel is discussed in Section IV of the report *“Parking System Revenue and Expense”*.

## **C. Parking Utility Organizational Chart**

Currently, there is no Organizational or Staffing Chart for the Parking Utility. If the City Mayor and Council decides that the Parking Utility should be the responsible government entity for on-street parking meter enforcement, collection and repair there is a need for restructuring the Parking Utility into an efficient and effectively organized entity.

The following Organizational Chart in Figure 9 outlines the positions recommended by Bier Associates for the Trenton Parking Utility. The Organizational Chart provides for Parking Utility management by creating either a Parking Utility Director reporting to the City Administrator or a Parking Manager/Supervisor under the direction of the City Manager. In the case of a Parking Manager/Supervisor, the City Administrator would be responsible for setting the policy goals and objectives of the Parking Utility, which would be carried out by the Manager/Supervisor. A secretary/bookkeeper is recommended to assist the Director or Manager/Supervisor with paperwork as well as record and deposit parking meter coin and other parking revenues.

Parking Utility field personnel for operations would be staffed by employees at the TPU FYE 2013 Budget level; two (2) Meter Collector/Repairers, one (1) Maintenance Repairer and four (4) Parking Enforcement Officers. Additional part-time PEOs would be hired as needed by the Parking Utility.



Source: Bier Associates, 2014.

### III. Parking System Operations

#### A. Parking Enforcement

Fair and consistent enforcement of parking regulations is critical to the free flow of traffic, vehicular and pedestrian safety, and parking turnover to support local residents, retailers and merchants. Inconsistent enforcement of parking regulations is detrimental to the parking program as it catches people unaware and provides the impression that parking enforcement is unpredictable, arbitrary and capricious. Parking enforcement “best practices” in a



Government/Central Business and Neighborhood Business Districts is to encourage parking meter turnover to make parking available for visitors, shoppers and customers. Parking meter zones should be created that enable a Parking Enforcement Officer.

TPU staffing budgeted for the past five years has provided for parking enforcement by 4 PEOs. The Police Department budget allows for 4 PEO's. Presently, 1 PEO is on medical leave and 1 PEO has retired. Consequently, parking enforcement is currently conducted by two (2) Parking Enforcement Officers (PEO). Parking regulations are enforced Monday thru Friday generally from 8 AM to 4 PM.

PEOs are presently primarily tasked by the Policy Department to follow the municipal street sweeper and to issue summonses to vehicles that have not vacated the curbside during alternate side of the street sweeping days and hours. PEOs are secondarily tasked to enforce Residential Parking Permit (RPP) zones.

***On and off-street parking meters and parking lots enforcement is the lowest PEO priority and is not a regularly schedule task of the PEOs.*** There are no set hours or days for PEOs to patrol Government, County Court or CBD area on-street parking meters.

Based upon 2010 thru 2013 summons data provided by the Municipal Court, Trenton Parking Enforcement Officers issued approximately 416 parking summons per month, per PEO. Current PEO enforcement activity results in only 21 summonses per day, per PEO, based on a 20 day work month. Most PEO summonses are issued for street sweeper (\$55) and Residential Parking Permits (RPP) enforcement (\$55) violations. Overtime parking summons (\$47) are infrequently issued. PEO performance standards in other urban environments similar to Trenton for on-street parking meter violations is between 600 and 1,000 summons per month, per PEO, with a performance standard of 800 summons per month.

The Trenton Parking Utility is enrolled in the statewide Parking Authority Ticketing System (PATs) administered by the State of New Jersey Administrative Office of the Courts (AOC). PEO parking summons are printed using the AOC's computerized handheld ticketing device. The PAT System is capable of generating PEO Productivity and Gap Reports to evaluate the effectiveness and time management of PEOs.

The Trenton Police Department disbanded its Traffic Division, due to budget constraints. The Traffic Division is often the point of contact and supervision for municipal PEOs, where there is no Parking Authority responsible for on-street meter and parking regulation enforcement. In addition as a result of City budget cuts the Police Department administrative staffing at the level of Captain has been reduced from 10 to 1 officer, resulting in a lack of direct and any field supervision of the municipal PEOs.

Police Department personnel currently, basically only confirm that the PEOs have reported to work and have clocked in and out at Police HQ for payroll purposes. Police personnel are not adequately trained on the PAT System. Police personnel do not have the spare time to acquire adequate knowledge of PATs to generate basic PEO performance reports to monitor PEO field activity. The Police Department has created a Sargent's position in the Bike Unit. The Police Department is hopeful that supervision of the PEOs can be added to the Bike Unit Sargent's responsibility.

Parking fee compliance at on-street parking meters and in parking lots is not enforced on weekends and weekdays after 4 PM.

### **Parking Enforcement Recommendations:**

- Hire two (2) PEOs already budgeted for, dedicated exclusively to parking enforcement in the State Street, County Court and Government/CBD parking metered areas from Monday thru Friday, 8am to 4pm. Dedicated PEOs will increase meter fee compliance.
- Consistently enforce Government Center, Federal, State and County Court House, and Train Station area time limits for downtown CBD on-street meters to promote turnover of conveniently located parking for government, retail and commercial business patrons. Warnings can be issued as a preliminary step prior to increased enforcement.
- Produce and track enforcement reports for the downtown area related to ticket issuance by type, zone, and by Parking Enforcement Officer. This information will identify appropriate performance benchmarks for PEOs and help determine if priority enforcement initiatives are being consistently addressed.
- Parking Management on a regular basis should review specific enforcement reports, data and trends to ensure compliance with parking enforcement expectations and goals.

### **B. Meter Collection**

There are approximately **853** on-street and off-street parking meters in the Trenton parking system of which **694** are functional and capable of accepting parking meter fees. The Meter System is divided into four (4) collection zones.

Trenton on-street parking meters have a “Closed Vault” collection system. Deposited meter coin is held in a locked coin canister, located inside the meter’s locked vault. The parking meter vault is unlocked by the meter collector. The meter coin canister is removed and placed into a special keyed docking port on top of the collection cart that allows the locked meter coin canister to open and drop the coin into the locked collection cart. When the meter coin canister is removed from the collection cart, the coin canister has a spring activated mechanism which automatically locks the meter coin canister as it is removed from the docking port. After the meter route is collected, the meter collector brings the collection cart to the Tax Collectors Office.

The Tax Collectors Office receives the locked collection cart and issues a receipt to the meter collector noting the collection cart number and the date received. The locked coin cart is placed in the Tax Collector’s vault and held until the locked collection cart is picked up by an armored car service. The Tax Collectors Office does not have a key to the locked collection cart. Tax Collectors Office transfers the locked collection cart to the armor car service receives a receipt from the armor car service with the collection cart number and date of pickup. The coin is not counted, nor is the collection cart weighed by the Tax Collectors Office before being picked up by the armored car company. The meter coin amount in the collection cart is undetermined and subject to coin counting by the armored car service.

The armored car service has the keys for the collection cart locks. After opening the locked collection cart, the armored car service counts the coin and faxes a dollar value to the City Treasurer/Finance Office. The armored car service forwards the coin and a completed deposit slip with the value of the coin to the City’s designated bank. The City’s Assistant Treasurer verifies that the Bank has credited the City’s account with the same amount as the coin count receipt faxed to the City by the armored car service. The Finance Department records the coin deposit. For budget and accounting purposes, the meter revenue is booked as *Miscellaneous City Revenue*, which is credited to the City’s *Current Revenue Fund* with further reference to the *Parking Meter Account*.

The meter coin is not credited to the Parking Utility or any other City department. The meter coin revenue is not included in the Parking Utility's annual Income and Expense Statement or Budget.

### **Meter Collection Recommendations:**

- It is recommended that parking meter coin collected from each individual parking lot should be segregated, separately deposited and accounted.
- On-street parking meter should also be separated into 7 or 8 new collection zones for which parking fees are separately deposited and accounted.
- Meter collection carts should be kept under the exclusive control of the Tax Collector and stored in Tax Collector's office, when not being used for meter coin collection.
- Meter collection carts locks should be verify and the collection cart crimped sealed by the Tax Collector Office prior to issuing a collection cart to the meter collectors for meter coin collection. Collection cart lock, keys and crimp seals should be kept by the Tax Collector.
- After coin collection, collection carts should be inspected by Tax Collectors Office to determine that the cart crimped seal is intact, and locked.
- Each coin collection should be individually counted and bagged before pickup by the armor car service.
- If coin is not counted after each collection, coin collected can be weighed at the Tax Collectors. A standard bag weight should be established for meter coin, 10 - 15 - 20 pounds per bag. Based on the weight, sample coin counts can be conducted to approximate the value of each bag by weight. The serial number and weight for each bag of coin should be noted on the deposit slip, in order to approximate coin value for each collection zone. Alternatively, the locked collection cart can be weighed and the coin value approximated.
- If coin is not counted or weighed after each collection, Random monthly integrity coin counts should be conducted by the Tax Collector to verify that the coin counting service is giving proper credit to the City for coin deposited in the bank.

### ***C. Parking Meter Repairs***

Meter maintenance and repair is conducted by a Parking Utility senior meter collector, under the direction of the DPW Traffic Division. No formal Broken Meter Report or public reporting procedure for a broken meter currently exists. The Traffic Division Supervisor advised Bier Associates that theoretically meter repair is conducted daily, based upon observation of a malfunctioning meter by the senior meter collector while in the field.

2014 Intern Group verified that the City's meter system is currently comprised of **231** mechanical meters and **546** electronic meters. Electronic meters were purchased in 1993 and 1999 by the City. **137** parking spaces out of **831** metered spaces in 2014 were inoperable. The entire inventories of on-street meter mechanisms (**831**) need to be replaced due to functional obsolescence.

Meter malfunctions are comprised of; jammed coins, dead batteries and electronic meters in "failure mode." The electronic meter failure mode is repaired by pushing a reset button to reboot the electronic meter mechanism. Parking meter malfunctions are caused by mechanical meter mechanisms that are functionally obsolete. Mechanical meter mechanisms are essentially mechanical clocks that need frequent lubrication as preventative maintenance. Mechanical mechanisms are expensive and labor intensive. They must be taken apart and timing wheels or

glass jewels replaced in order to repair change meter time limits or change payment rates.

Electronic parking meters have no moving parts, are generally reliable and parking rate changes can be accomplished via an electronic handheld device. Servicing is comprised mostly of battery changes. Currently dead batteries are changed when needed and are not changed system-wide on a regular 6 month basis. Spare batteries are kept in inventory. The meter maintenance person does not carry spare electronic meter mechanism in the field with him, when collecting coin from parking meters.



Some on and off-street meter housings are dual heads with a single vault and 1 coin canister. It is recommended that in high volume parking areas, the dual meter housings be replaced with single head housings mounted on a yoke that permits 2 single head meters to be installed on one meter pole to control two parking spaces.

By converting the dual meter housings to single meters, the coin capacity of each meter pole is doubled. Since each meter has its own coin canister, the increased coin capacity will reduce the frequency of meter collections.

Meter lenses are not replaced when they become; broken, cracked, and cloudy or are graffitied with magic marker or stickers. Replacement lenses should be kept in the meter repair supply inventory. Lenses should be changed in the field as needed during meter collection.

Many parking meters have missing or unreadable meter rate cards. Replacement meter rate cards should be kept in the meter repair supply inventory. Rate cards should be changed in the field as needed during meter collection.

DPW workers available to the Traffic Division straighten meter poles, dig holes and set poles for parking meter installation and replacement.

### **Meter Repair Recommendations:**

- Replace all missing meter poles and meter housings.
- Repair all broken existing meter mechanism. Replace meter lenses. Install meter rate cards.
- Replace all existing mechanical and electronic parking meters mechanisms with new electronic meter mechanisms.
- Purchase Credit Card enabled single space parking meters for primary high volume on-street parking meter spaces with an hourly rate of \$1.00 or more.
- Institute Pay By Cell Phone for all parking spaces with an hourly rate of \$1.00 or more.
- Replace dual head parking meters in high activity parking spaces with single head parking meters mounted on a dual meter yoke.
- Spare electronic meter mechanisms should be carried by the meter collector during meter collections to replace out of service meter mechanisms when encountered.
- Electronic meter batteries should be changed every 6 months to eliminate out of service meters due to battery failure.

- Spare meter lenses, batteries and parking rate plates should be carried by the meter collector during meter collections to replace broken, cracked, cloudy, sticker or graffiti covered lenses when encountered.
- Develop a formal procedure for internal and external reporting of broken, missing or inoperable parking meters.

#### ***D. Parking Facility Maintenance***

When someone visits Trenton to work, shop, dine or visit off-street parking facilities are often the first and last impression they will have of the City’s neighborhoods. Accordingly, it is critical that the City’s off-street parking facilities be attractive, well maintained and secure to provide a high level of user comfort and acceptance, as well as present a positive impression of the City.

In general, the City’s off-street surface parking facilities are in poor condition. It is also important to maintain these facilities to prevent personal injury, reduce the City’s associated monetary liability and insurance rates, and to ensure that the city’s parking assets are maintained and maximized their useful life.

#### ***E. Signage***

Currently there is no wayfinding signage, directing parkers to off-street public parking lots in the neighborhoods. Existing lot identification signage is not always visible from the street and is utilitarian. Lot identification signage should be installed at key vehicular entry locations, notifying potential users of the name of the lot and the type of available parking. The lot identification signage should be attractive and represent the aesthetic character of Trenton and the neighbor areas the lots serve.



#### ***F. Facility Maintenance Cleaning and Litter Removal***

We observed most City parking facilities needed landscaping maintenance, and weed control. Parking lots were not swept, and had litter. Parking lots a required; restriping, curb repairs or replacement, crack sealing and asphalt topping or replacement.

At the present time it appears that there is no formal maintenance, repair and resurfacing program in effect for the municipal public parking lots.



To ensure that the City’s parking facilities are clean for parking patrons visiting the downtown, the following actions are recommended:

- Inspect all lots.
- List repairs and have municipal engineer prepare estimated budget for each improvement.
- Establish an order of magnitude and priority for each repair.

- Establish an annual repaving and re-stripping program for surface parking lots.
- Determine how much revenue can be devoted annually to improvements. Create a five year capital budget.



## IV. Parking System Revenue & Expense

### A. Parking System Revenue: 2008- 2014

Parking Revenues collected by the City of Trenton are generated from three sources: parking lot leases, on-street parking meter fees and off-street parking lot fees.

The City receives **\$1,484,576** annually from 2 parking leases **\$1,300,000** for the Hughes Justice Complex parking lots and **\$184,076** for the TDEC. ***The annual revenue received by the City from the State of New Jersey parking leases has been excluded from the Financial Analysis of the income and expense associated with the operation of the On-street Meter System and Neighborhood Parking Lots, to determine if the On-Street System and Neighborhood Parking Lots break even, generate positive cash flow or operate at a loss.***

Parking fees are also collected from 7 municipal parking lots. Revenue from FYE 2008 to FYE 2013 has ranged from a low of **\$26,810** and a high of **\$74,640** in FYE 2011.

**Table 3: Trenton Parking System Revenue**

	2008 Revenue	2009 Revenue	2011 Revenue	2011 Revenue	2012 Revenue	2013 Revenue	2014 Revenue
<b>Parking Leases</b>							
Justice Complex	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000
TDEC	\$184,576	\$184,576	\$184,576	\$184,576	\$184,576	\$184,576	\$184,576
<b>Lease Revenue</b>	<b>\$1,484,576</b>						
<b>On-Street Meters</b>							
Working Meters	829	798	779	760	741	717	687
Revenue per Meter	\$288	\$258	\$289	\$325	\$274	\$259	\$268
<b>Sub Total</b>	<b>\$238,720</b>	<b>\$206,061</b>	<b>\$224,816</b>	<b>\$246,631</b>	<b>\$202,719</b>	<b>\$185,907</b>	<b>\$184,059</b>
<b>Off-Street Meters</b>							
Mill Hill	\$27,550	\$24,850	\$39,915	\$68,830	\$39,500	\$22,915	\$34,974
Wilbur	\$233	\$146	\$109	\$91	\$98	\$195	\$109
Hamilton	\$3,149	\$2,716	\$2,769	\$3,252	\$1,516	\$1,324	\$738
Brunswick	\$3,404	\$2,874	\$2,250	\$1,322	\$1,155	\$1,519	\$846
South Broad	\$257	\$149	\$143	\$227	\$121	\$234	\$130
Liberty	\$207	\$197	\$379	\$407	\$244	\$311	\$174
7-11 So. Broad	\$254	\$240	\$454	\$511	\$306	\$312	\$174
<b>Sub Total</b>	<b>\$35,054</b>	<b>\$31,172</b>	<b>\$46,019</b>	<b>\$74,640</b>	<b>\$42,940</b>	<b>\$26,810</b>	<b>\$37,144</b>
<b>On- &amp; Off-Street Revenue</b>	<b>\$273,774</b>	<b>\$237,233</b>	<b>\$270,835</b>	<b>\$321,271</b>	<b>\$245,659</b>	<b>\$212,717</b>	<b>\$221,203</b>

Source: City of Trenton Parking Authority and Bier Associates, 2014.

**B. Parking Meter Revenue Analysis: 2008- 2014**

On-street parking meter revenue from FYE 2008 to FYE 2014 ranged from a low of **\$184,059** in FYE 2014 to a high of **\$246,631** in FYE 2011. Parking meter revenues in FYE 2013 and 2014 averaged approximately **\$185,000** and were **\$38,000** less than the prior 5 year (FYE 2008 to 2012) average of **\$223,789**.

Possible explanations for the FYE 2013 and 2014 decline in parking meter revenue are; lack of parking meter enforcement for overtime parking violations, **142** inoperable or missing meters and average handicapped parking occupancy of 97 vehicles without payment of meter fees at on-street meters in the Government CBD.

The City has divided meter collections into 4 zones. Meter revenue is not reconciled or recorded based on the 4 collection zones. Consequently it is difficult to pinpoint on-street meter revenue to specific areas. The following analysis is an attempt to quantify CBD paid meter compliance based on FYE 2014’s meter revenue of **\$184,054**. There are approximately **610** parking meters in the area defined as the Government / CBD (**344**) and Secondary Government (**266**) locations. For purposes of this analysis, it is assumed that 90% or **\$165,653** of FYE 2014 parking meter revenue was generated from these areas.

Of the **610** parking meters located in the Primary and Secondary parking areas, **122** meters or 20% were inoperable and **90** meters were occupied by handicapped parkers, who paid no parking meter fee. Consequently, **212** or **34 %** out of **610** CBD parking meter spaces produced no income.

When **398** income producing parking meters is divided into **\$165,653** (90% of meter revenue), annual meter revenue is **\$416** per meter ( $\$165,653 \div 398 \text{ meters} = \$416$ ). When the **\$416** annual meter revenue is divided by 230 business days, daily meter revenue is **\$1.81** per meter ( $\$416 \div 230 = \$1.81$ ). Based upon a **\$1.00** per hour parking rate in the Primary and Secondary areas of the Government / CBD, paid parking compliance is approximately **1 hour and 49 minutes** per day.

**C. Parking System Staff Expense**

The 2012 Budget included (2) Meter Collector/Repairers, (1) Maintenance Repairer and (4) PEO, at an average PEO salary of **\$45,062**. Combined salary and wage expense for all Parking Utility employees was **\$331,968** and total employee costs, which included employment taxes, pension and health care was approximately **\$451,692**.

**Table 4: Parking Utility Salary and Benefits – FYE 2012**

Position	Salary	Benefits	Medical	Position Total
Sr. Meter Collector & Repairman	\$55,334	\$11,205	\$7,500	\$74,039
Meter Collector & Repairman	\$49,812	\$10,087	\$7,500	\$67,399
Maintenance & Repairman	\$46,574	\$9,431	\$7,500	\$63,505
PEO 1	\$45,062	\$9,125	\$7,500	\$61,687
PEO 2	\$45,062	\$9,125	\$7,500	\$61,687
PEO 3	\$45,062	\$9,125	\$7,500	\$61,687
PEO 4	\$45,062	\$9,125	\$7,500	\$61,687
<b>Total</b>	<b>\$331,968</b>	<b>\$67,224</b>	<b>\$52,500</b>	<b>\$451,692</b>

Source: City of Trenton Parking Authority and Bier Associates, 2014.

The proposed FYE 2015 Organizational Chart for Parking Utility management by Bier Associates includes either a Parking Utility Director or a Parking Manager/Supervisor at a total annual salary and benefits cost of **\$85,663**. A secretary/bookkeeper is also recommended to assist the Director or Manager/Supervisor with paperwork as well as record and deposit parking meter coin and other parking revenues, at an annual salary and benefits cost of **\$49,588**.

Bier Associates recommends seven (7) field staff as an appropriate number of personnel to accomplish the current mission of the Parking Utility to enforce, collect and repair the existing on-street parking meters and off-street parking lots owned or operated by the Parking Utility. Parking Utility field personnel for operations would be staffed by; two (2) Meter Collector/Repairers, one (1) Maintenance Repairer and four (4) Parking Enforcement Officers. Additional part-time PEOs would be hired as needed by the Parking Utility, without medical and pension benefits.

**Table 5: Parking Utility Salary and Benefits – FYE 2015**

Position	Salary	Benefits	Medical	Position Total
Director of Operations	\$65,000	\$13,163	\$7,500	\$85,663
Office Secretary/Bookkeeper	\$35,000	\$7,088	\$7,500	\$49,588
Sr. Meter Collector & Repairman	\$57,135	\$11,570	\$7,500	\$76,205
Meter Collector & Repairman	\$30,311	\$6,138	\$7,500	\$43,949
Maintenance & Repairman	\$29,402	\$5,954	\$7,500	\$42,856
PEO 1	\$45,062	\$9,125	\$7,500	\$61,687
PEO 2	\$45,062	\$9,125	\$7,500	\$61,687
PEO 3	\$29,402	\$5,954	\$7,500	\$42,856
PEO 4	\$29,402	\$5,954	\$7,500	\$42,856
<b>Total</b>	<b>\$365,776</b>	<b>\$74,070</b>	<b>\$67,500</b>	<b>\$507,346</b>

Source: City of Trenton Parking Authority and Bier Associates, 2014.

The FYE 2015 annual cost of salary and benefits for the seven (7) member field staff is **\$372,095**. The cost of the FYE 2015 seven (7) field staff is approximately **\$80,000** less than the FYE 2012 amount of **\$451,692** due to prior staff attrition and retirement, which would enable the Parking Utility to hire new staff at lower starting salaries.

The total proposed salary and benefits cost for FYE 2015 Parking Utility administrative and field staff is **\$507,346**, which is only **\$56,000** more than the FYE 2012 field staff budget.

**D. Parking Revenue & Expense Analysis**

Parking revenue for FYE 2012, excluding the **\$1,484,576** received annually for parking facility lease payments, was **\$245,659**. Salary and benefits expense for field staff necessary to generate the **\$245,659** from on-street meters and municipal parking lots was **\$451,692**. **Consequently, the Parking Utility when it allocates all revenue derived from on-street public parking and the actual cost of salaries and benefits associated with providing parking services, and excluding the revenue from the State of New Jersey parking leases, operated at a deficit of -\$206,033 in FYE 2012.**

Parking revenue for FYE 2015, excluding the **\$1,484,576** received annually for parking facility lease payments, based on FYE 2013 & 2104 revenues, without any hourly parking meter rate changes, additional meter installations or a change in parking enforcement is projected to be **\$245,659**. Assuming the adoption of the FYE 2015 reorganization plan for the Parking Utility, salary and benefits for administrative and field staff necessary to generate the **\$245,659** from on-street meters

and municipal parking lots is budgeted at **\$507,346**. *Consequently, the Parking Utility when it allocates all revenue derived from on-street public parking and the actual cost of salaries and benefits associated with delivering said services will operate at a deficit of **-\$294,629** in FYE 2015.*

*The actual Parking Utility operating deficit for FYE 2012 is greater if the cost of Tax Collector and Finance Department personnel who performed parking administrative and finance tasks were allocated to the Parking Utility.* The deficit for the increases if FYE 2012 budgeted and expended line item operating expenses, which appear to be understated, are included in this analysis.

### **E. Breakeven Analysis**

Based on the income and expense analysis provided in the prior section, the Parking Utility as constituted in FYE 2012 operated at a **-\$206,033** deficit and in FYE 2015 would operate at a deficit of **-\$294,629** if organizational and staffing changes recommended in this study were adopted.

As noted in the prior paragraph, budgeted operating expense line items of the Parking Utility are not fully detailed and are understated. Based on Bier Associates consulting and management experience with Parking Utilities and Authorities in New Jersey, \$100,000 is believed to be a more accurate operating expense line item budget number. (See Appendix D for a Detailed Operating Line Item Budget). Consequently, when operating expenses are added to operating salaries, the FYE 2012 deficit is **-\$306,033** and FYE 2015 deficit would be **-\$395,629**.

Parking Utilities and Parking Authorities are intended to be self-supporting municipal entities and at a minimum, break even and preferably generate a surplus that can be used to; acquire real estate for off-street parking facilities, purchase parking equipment and/or to construct, repair and replace existing and future parking facilities.

In order for the Trenton Parking Utility to be a self-liquidating provider of public parking it is necessary for the City to consider the following options to increase parking revenues:

- Change Primary Government CBD Meter Rates from \$1.00 to \$2.00 per Hour
- Increase Primary Government CBD Meters from 1 and 2 Hour Time Limits to 4 Hours
- Increase Secondary Government CBD Meters from 2 Hours to 6 or 8 Hours in selected locations
- Enforce Payment of Parking Fees and Overtime Parking Violations
- Enforce Payment of Parking Fees by Vehicles Displaying Handicapped Credentials
- Parking summons Fine Revenue Sharing Agreement Between City & Parking Utility or Authority

As previously noted, in the Parking Revenue Analysis section of this study **398** or **65%** of the meters located in the Government, Court, CBD primary and secondary area generated **90%** of annual on-street meter revenue based on 1 hour and 49 minutes of paid compliance at an hourly parking rate of **\$1.00**. The hiring of 2 additional PEOs dedicated to CBD primary and secondary parking meter locations should increase paid parking meter compliance by approximately 100% resulting in 3 hours and 30 minutes of paid parking.

If the CBD hourly parking rate remains at **\$1.00** per hour, with an increase of paid parking to 3.5 hours or **\$3.50** per day, the 398 CBD meters would generate parking revenue of **\$320,390** an increase of **\$154,703**. The additional parking revenue, from increased enforcement and paid compliance is still not enough for the City of Trenton on-street parking meter system to be self-sufficient.

It is recommended that Primary area Government CBD parking meter rated be adjusted from **\$1.00** to **\$2.00** per hour. Assuming **3.5** hours of paid meter parking compliance at **299** out of **398** paid parking meters, at **\$7** per day, per meter and **230** business days, Primary CBD parking meters would generate **\$481,390** of annual revenue, an increase of **\$356,917**.

Further assuming that **99** vehicle out of **398** paid parkers will be parked at existing **\$1.00** per hour Secondary area Government CBD parking meters, for **3.5** hours, **\$79,695** of annual revenue will be generated, an increase of **\$35,481**.

The combination of increasing the Primary CBD parking meters to **\$2.00** and dedicated PEOs for parking enforcement in the CBD should result in annual CBD parking meter revenue of **\$561,085**, which is sufficient to pay for the **\$507,346** salary and wage expense, for the level of staffing recommended for reorganization of the Parking Utility.

As previously noted, handicapped parkers account for **97** unpaid occupied parking meters per hour from 10 am to 2pm. No additional revenue is attributed in this analysis to the active enforcement by newly hired PEOs of handicapped parking meter fee compliance. It is believed that many of the handicapped parkers are State of NJ employees, who are provided with free parking spaces by the State in remote parking lots. The employees displaying handicapped parking placards or license plates utilize on-street metered spaces which are closer to their place of work, instead of the parking spaces provided by the State.

Once parking meter fee compliance is enforced by PEOs, it is anticipated that vehicles with handicapped credentials will park in the free off-street parking spaces provided by the State, rather than pay the **\$8** per day parking meter fee or receive a ticket. However, the elimination of **97+/-** all day handicapped vehicles at on-street parking meters in the CBD will increase the availability of metered parking spaces.

In order to fund PEO salaries, operational expenses, new parking equipment and capital improvement to the municipal parking lots it is recommended that the City authorize a parking violation fine sharing agreement with the Parking Utility or Authority, which ever entity is charged with operating the on-street meter system and municipal public parking lots. Fine sharing agreements are common between Cities and Parking Authorities. The cities of Camden, Newark, New Brunswick, Rahway and Fort Lee to name a few have fine sharing agreements with their Parking Authority.

The Breakeven Analysis in this section presumes that the Parking System, when reorganized will have four (4) operational Parking Enforcement officers. As previously stated in the Parking Enforcement section of this report, the urban performance standard for New Jersey parking enforcement summons issuance is 800 parking summons per month. Assuming that 2 PEOs are hired, they will each issue 9,600 overtime parking summons per year. The 2 additional PEOs will issue a total of 19,200 new summons, from which fine revenue will be collected by the City.

It is common for an urban municipal court to collect summons fees from approximately 70%+ of the parking summons issued. Consequently, it is projected that the Municipal Court will collect a total of

**\$631,680** of new overtime parking fine revenue. (19,200 summons x 70% x \$47 fine). If the City approves a **\$10** fine sharing agreement with the Parking Utility or Authority, whichever entity is tasked with parking enforcement, **\$134,400** (13,440 summons x \$10 fine share) can be paid to the enforcing entity to pay for Parking System staff, parking equipment and capital improvements. **The net parking summons revenue to the City of Trenton, after the fine sharing payment is \$479,280.**

The following spreadsheet demonstrates that the Parking Utility in FYE 2012, based on parking meter and permit fee, not counting parking lease revenue, operated at a deficit of more than - **\$206,032**. The proposed reorganization plan for the Parking System, based on all the recommendations contained within this report produces gross parking revenue of **\$748,943** from on-street and summons an increase over FYE 2012 non-parking lot lease revenue of **\$503,284**.

	<b>Actual FY 2012</b>	<b>Projected FY 2015</b>
<b>REVENUE</b>		
On-Street Parking	\$202,719	\$577,398
Off-Street Parking	\$42,940	\$37,145
Citation	\$0	\$134,400
<b>Revenue Total</b>	<b>\$245,659</b>	<b>\$748,943</b>
<b>EXPENSE</b>		
Staff Expense	\$451,691	\$507,347
Administrative Expense	?	\$25,000
Operational Expense	?	\$75,000
Capital Expense	?	\$125,000
<b>Expense Total</b>	<b>\$451,691</b>	<b>\$732,347</b>
<b>Profit / Loss</b>	<b>(\$206,032)</b>	<b>\$16,596</b>

Source: City of Trenton Parking Authority and Bier Associates, 2014.

The proposed reorganization plan for the Trenton Parking System and projected gross revenue of **\$748,943** allows the managing parking entity to fund the following expenses:

- Staff Salaries, including Management **\$507,347**
- Administrative Expense **\$ 25,000**
- Operational Expense **\$ 75,000**
- Annual Capital Plan **\$125,000**

Based on the recommendations contained within this report the Trenton Parking System can be operated at Breakeven with a small amount of excess revenue of **\$16,596** to fund a Parking System reserve account.

## Recommendation Summary

To accomplish the objective of rendering the Parking Utility self-liquidating, the following actions are recommended;

Recommendation	Benefit
<b>Parking Administration &amp; Management</b>	
1 Centralize All On-Street Parking Services under a single city entity (Parking Utility or Parking Authority)	Provides the ability to better manage on-street parking system
<b>Parking Facility Maintenance</b>	
2 Implement Parking Lot ID signage with type of available parking and rates.	Provides easier lot identification and wayfinding and enhanced facility aesthetic appearance
3 Repair parking pavement and curbs	Improved parking lot appearance and reduces liability
4 Sweep and litter police parking facilities	Creates a cleaner environment for parkers
<b>Parking Equipment Technology</b>	
5 Investigate Multi Space Meters for Lots	Increases parker payment convenience and provides real time parking management data
6 Investigate Pay By Cell for all on-street parking meters in CBD	Provides convenient payment option for parkers. Provides ability to add time to meters.
7 Investigate Credit Card Enabled Meters for CBD primary meters	Adds payment options and reduces reliance on coins parkers.
<b>Parking Policy &amp; Permit, and Shared Parking Recommendations</b>	
8 All Off-Street Parking Facilities	Allows parking facilities to be shared without conflict to accommodate merchants, employees and visitors, generates additional revenue. Allows overnight resident parking from 6pm to 8am in selected off-street parking facilities
<b>On-Street Parking</b>	
9 Replace on-street mechanical and electronic parking meter mechanisms.	Improves meter reliability. Upgrades parking system by creating additional shopper parking.
10 Install additional on-street meters.	Generates additional meter revenue.

### **Parking Enforcement**

- |    |   |   |
|----|---|---|
| 11 | Produce enforcement reports to track and ensure consistent enforcement of downtown parking regulations. | Management tool to monitor parking policies. Provides early detection of trends and problems. Increases parking fee compliance thru review of summons issuance by officers. |
| 12 | Consistently enforce meters time limits   | Increases compliance and provides more turnover of convenient on street parking   |
| 13 | Hire 2 PEOs dedicated to downtown   | Promotes fee compliance and parking availability thru meter turnover from consistent parking enforcement  |

### **Parking Program Communications**

- |    |  |  |
|----|--|--|
| 14 | Update City website to include more information on rates and locations                     | Allows better communication with the public  |
| 15 | Utilize social media networks to provide updated information regarding the parking program | Provides ability to offer timely updates and information regarding downtown events, parking policy changes, and special promotions |

### **Rates & Time Limits**

- |    |   |   |
|----|---|---|
| 16 | Adjust parking meter rates and time limits depending on locations | Promote turnover and parking space availability in CBD. Avoid handicapped parking abuse at on-street meters. Increase parking meter revenues. |
|----|---|---|

## **APPENDIX INFORMATION**

### ***A. Parking Technologies***

Parking technologies such as; coin and debit card single space meters, credit card enable single space meters, multi-space meters that accept credit card, bill and coin payments, pay-by-cell programs, in car meters, RFID permit hang tags systems, access card gate control systems, gate systems with in-lane cashiering devices, CCTV remote monitoring and parking permit software management systems are available for utilization by the Trenton Parking Utility (TPU) to improve management, operation and parker payment convenience.

Multi-space pay stations cost \$10,000+ to purchase with solar panels and dollar bill acceptors, excluding the weather enclosure that can cost an additional \$2,500 to \$3,500. With an enclosure and installation a single multi-space meter pay station will cost about \$15,000 each. In addition to the purchase and installation cost for multi-space pay stations, they require monthly; communications and software maintenance contracts of approximately \$45 per month, hardware maintenance of \$45 per month, receipt roll paper at \$35 per roll, which handle approximately 1,500 transactions, and credit card costs approximately \$0.30 per transaction.

Single space credit card enabled meters cost \$500 per meter to purchase. These meters accept coin, token, debit and credit cards. Software and communications monthly fees are \$6.00 per meter. Credit and debit card payments cost \$0.40 per transaction. Meter hardware maintenance contracts are optional and costs \$50 per year, per meter.

Enhanced parking meters, such as multi-space meter pay stations and single space credit card enabled meters are usually not deployed unless parking fees are \$1.00 per hour or they are regulating long term daily parking with a rate of \$3.00 or more to absorb the cost of purchasing and operating the technology. For example, commuter parking meters are usually 12-14 hours in duration, consequently even with a \$.50 per hour parking rate, a commuter meter collects \$6 or \$7 per day. A standard length coin canister holds approximately \$40 of coin, which requires a commuter meter to be collected weekly, or the coin will back up and jam the meter. Additionally, it is not convenient for the commuter to have to insert 24-28 quarters daily to pay for parking. In a commuter parking environment with a \$5 or more daily parking fee, a multi-space meter that accepts bills or credit cards is an efficient and effective parking solution.

### **Single Spaces Standard & Credit Card Enabled Meters and Multi Space Meters**

The equipment utilized to collect parking fees is a critical component to customer convenience and parking system revenue control. The present TPU equipment includes Duncan single space mechanical meters and McKay single space electronic meters for on-street parking spaces and off-street facilities.

The entire TPU meter system should be replaced with standard single-space electronic meters manufactured by POM, Duncan and McKay that accept coins, tokens and a dedicated parking system debit card. The cost of standard electronic parking meters is \$185 per meter. The standard electronic meter can be programmed to offer variable rate and time limits. They do not accept bank debit cards or credit cards.



Multi-space meter pay stations are well received by the public and can provide the convenience of multiple payment options including coin, bills and credit card. They can also be programmed to offer variable parking rates and time limits, according to time of day. They are cost effective when regulating multiple [30-50] off-street parking spaces that are grouped together, and are in close proximity to each other or are in a facility that has a single pedestrian point of entry and exit.



Credit cards enabled meters offer multiple payment options

Credit card enabled meters allows users to choose from multiple payment options including credit cards, coins and 'smart' cards. Credit card enabled parking meters are compatible with pay-by-cell phone parking systems. Initial parking payments can be made at the meter and with an integrated cell and credit card meter system, parking time can be refilled via cell phone.

Credit card enabled parking meters cost approximately \$500 per meter. Credit card payments by parkers cost the municipality \$0.40 per transaction. Communications and software maintenance costs \$6 per meter per month. Meter mechanism hardware maintenance contracts are optional and cost \$50 per year per meter.

### Recommendations:

To continue to improve customer convenience, revenue control and enhance parking operations the City should undertake or consider the following recommendations:

- Replace all single space mechanical and electronic meter mechanisms with new standard electronic meter mechanisms from a single manufacturer..
- Evaluate the purchase of credit card enabled single space parking meters if the City allows approves hourly rate increase for the Primary CBD meters.

### Pay-by-Cell

Pay-by-cell phone systems are being implemented in a growing number of cities in the US. These systems allow patrons to pay for their parking through various cell phone- based commands (call, text, scanning a QR code). Using cell phones, patrons can also extend their time at a meter or facility from a remote location. Text or voice message notifications can be sent to patrons as their parking time is about to expire. Many of these systems can operate in conjunction with the City's parking meters and multi-space pay machines.



Pay by Cell systems are being implemented in growing number of US Cities.

The convenience of paying for parking by cell phone and the ability to remotely add time to a parking session is a significant benefit to downtown users, from retail or restaurant parkers with brief stays to those with all-day parking needs. Cell phone payment systems eliminate trips to the meter and the need to carry coins.

Pay-by-cell systems, in addition to offering convenience, can be an option for Trenton. The systems require minimal investment on Trenton's part. Typically the city incurs little cost to implement the pay-by-cell system because the service provider sets up the operating program,

installs signage, markets the service, and negotiates with the city an appropriate service fee paid by the user to be added to individual parking transactions (usually \$0.25 - \$0.35 per transaction).

However, because pay by cell systems are dependent on credit card payment, there are fees of \$0.30 per transaction associated with this service that must either be borne by the City or transferred to the user. A threshold of \$2.00 to \$3.00 (4-6 hours) per transaction would have to be established for the program to be financially viable for the City of Trenton.



### RFID Parking Permit System

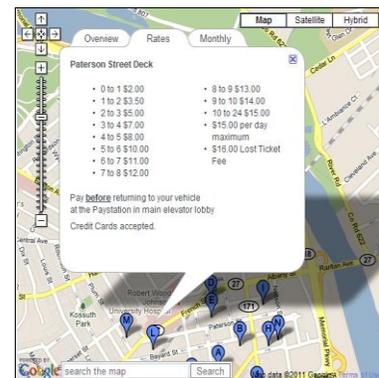
Another parking lot permit system option is a RFID Parking Permit System to regulate and enforce off street parking permit facilities. RFID technology is radio frequency identification. RFID hang tags are placed in a vehicle and are recognized by a hand held enforcement device. The handheld interacts with parking management software to determine whether parking permit payment has been received from the permit holder and the permit is active.

Parking enforcement productivity can be increased with a RFID parking permit system, thereby reducing the amount of staff dedicated to parking permit enforcement and allowing TPU staff more time to enforce on and off-street meters or other high priority parking enforcement activities.

A RFID parking permit system can be a cost-effective way to increase revenues associated with monthly parking permit fee payment by individual permit holders and increase the ease of capturing unpaid permit holders and unauthorized parkers in permit parking lots.

### B. Parking Program Communications & Marketing

A common problem experienced by municipal parking systems is that there is little effort expended to communicate and promote the mission, assets and functions of the parking system. In an effort to support and promote ongoing redevelopment, Trenton should undertake a program to inform its residents, downtown merchants, employees, shoppers, and commuters, and the general public regarding the way the parking system operates. The program should address the need for consistent enforcement and the value of on and off-street parking assets. The objective in promoting a parking system is to transform what can often be perceived as a negative image into a positive one. Currently there is limited information or promotional material dedicated to communicating information regarding the Trenton Parking System, program and policies.



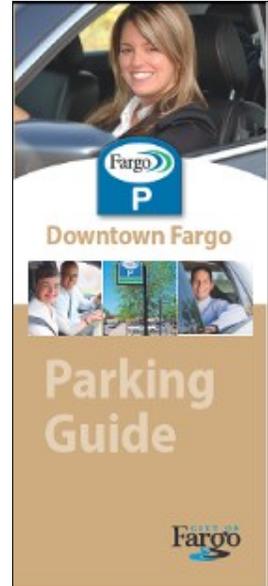
New Brunswick Parking Authority's Website

### Recommendations:

- Expand the city webpage dedicated to parking and include a page on parking news, policy ordinance changes, improvements, plans for upgraded facilities, new technology, operational information and how it will affect the community. Provide a parking location map with hourly and monthly parking rates.
- See the New Brunswick Parking Authority website (<http://www.njnbp.org/parking-locator>)

as an example of an informative and easy to use website

- Include an FAQ section not limited to permit application and instructions, definition of parking policies, paying and contesting parking tickets, etc. Include more information than what is currently available.
- Consider the use of social media outlets such as Facebook and Twitter as a cost-free strategy to connect with the public and convey any parking events or changes related to Trenton’s parking system. A profile is easy and takes little time to set up. Miami Parking Authority uses these social media outlets to communicate to the parking public regarding events, promotions and timely information regarding the parking program that may impact the downtown or adjacent neighborhoods.
- Produce a parking brochure that provides valuable parking information to residents, customers, commuters and visitors.
- A parking promotional program for Trenton should include educating merchants and the public as to the value and need for on-street parking time limits, to serve downtown businesses, and the need for consistent enforcement.
- Encourage and work with the Trenton BID to create promotional initiatives to market downtown retail and restaurant establishments and offer parking location maps.



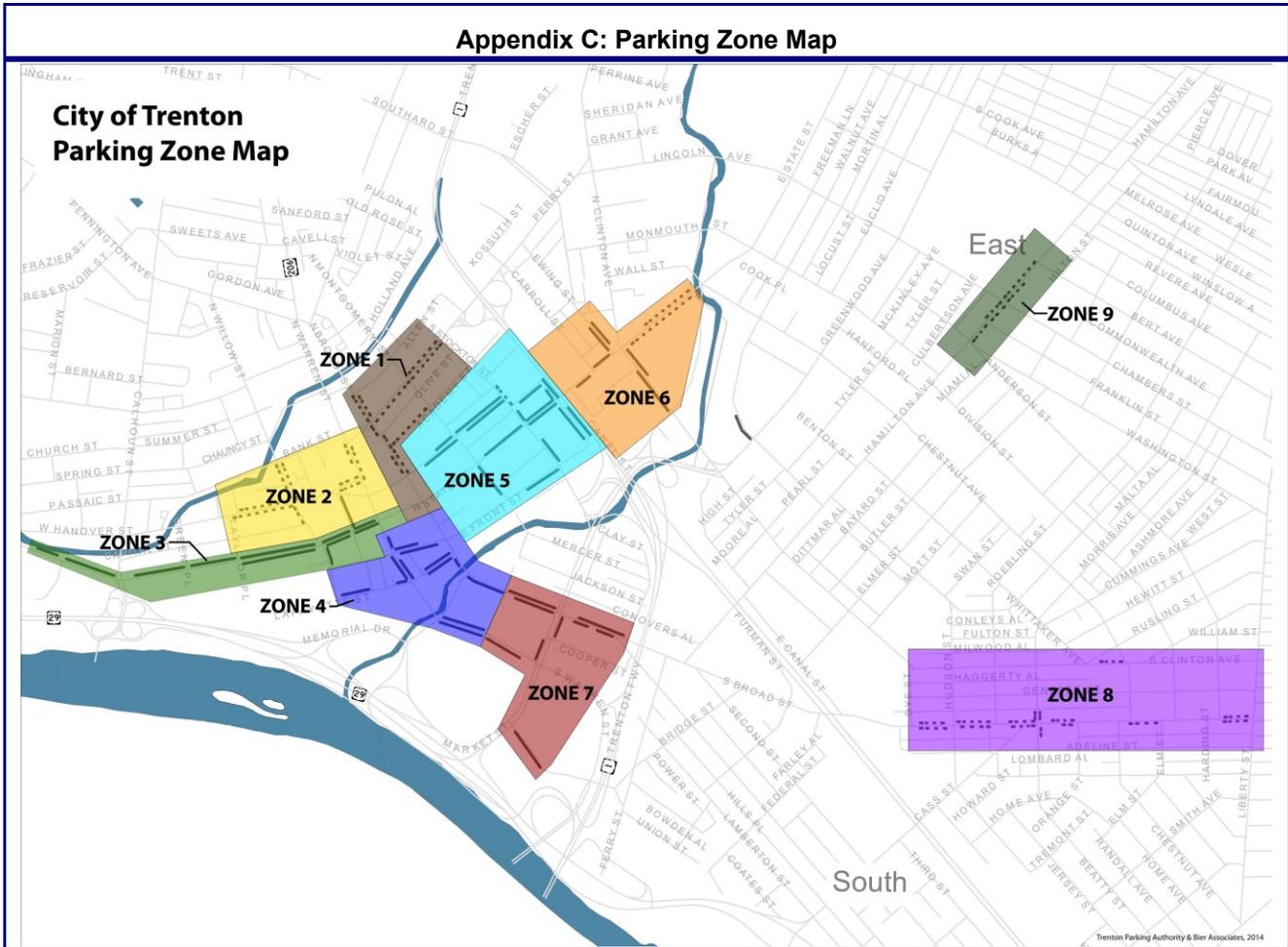
***C. Parking Zone Map***

***D. Breakeven Analysis Worksheet***

***E. Existing On-Street Parking Map***

***F. Proposed On-Street Parking Map***

***G. City of Trenton Institutional Map***



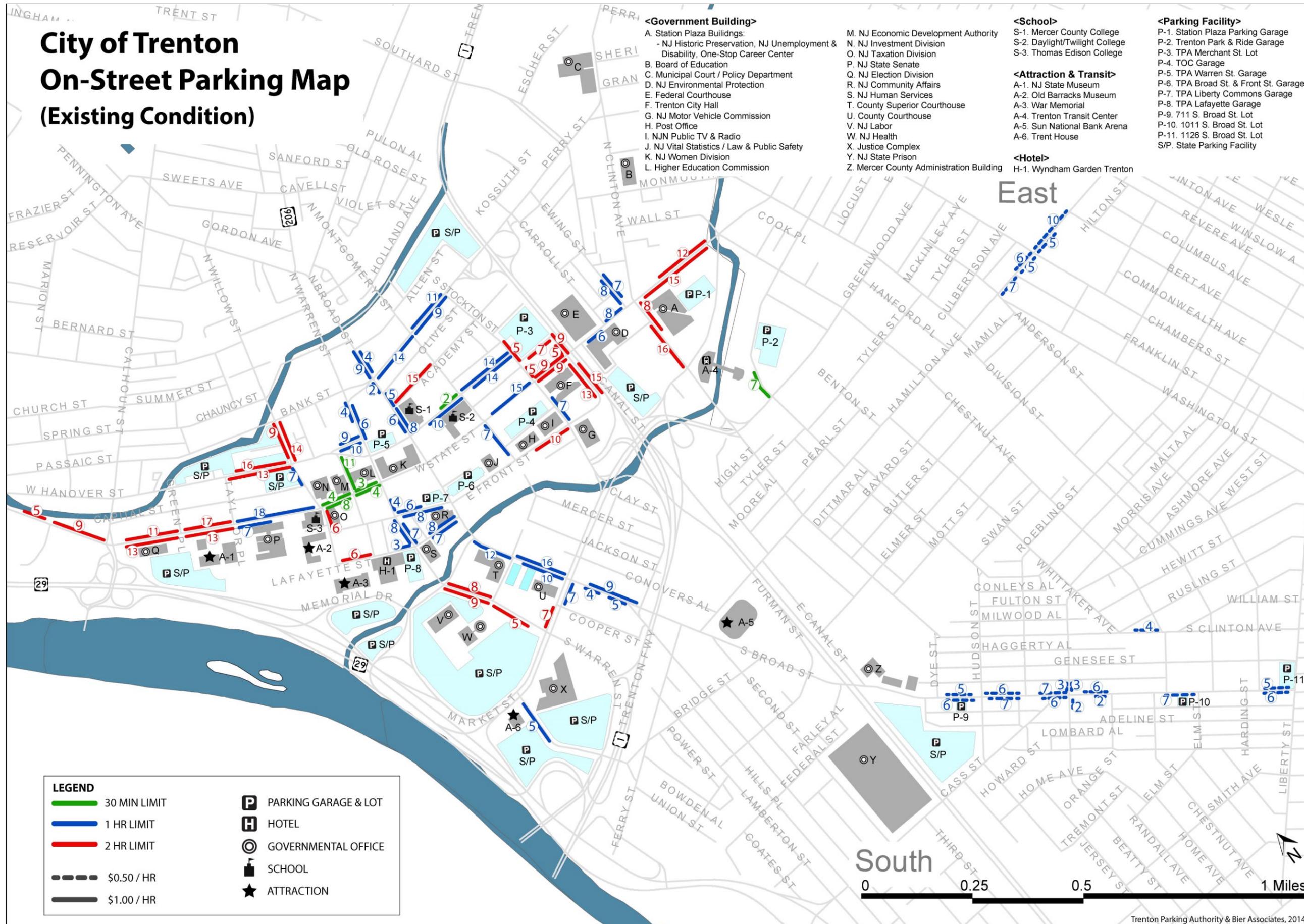
Source: City of Trenton Parking Authority and Bier Associates, 2014.

**Appendix D: Breakeven Analysis Worksheet**

REVENUE	Actual			Projected
	FY 2012	FY 2013	FY 2014	FY 2015
<b>Existing Parking System</b>				
<b>On-Street Parking</b>	<b>\$202,719.00</b>	<b>\$185,907.00</b>	<b>\$184,059.00</b>	<b>\$185,000.00</b>
Off-Street Parking				
Mill Hill	\$39,500.00	\$22,915.00	\$34,974.00	\$34,974.00
Wilbur	\$98.00	\$195.00	\$109.00	\$109.00
Hamilton	\$1,516.00	\$1,324.00	\$738.00	\$738.00
Brunswick	\$1,155.00	\$1,519.00	\$846.00	\$846.00
South Broad	\$121.00	\$234.00	\$130.00	\$130.00
Liberty	\$244.00	\$311.00	\$174.00	\$174.00
7-11 South Broad	\$306.00	\$312.00	\$174.00	\$174.00
<b>Off-Street Parking Total</b>	<b>\$42,940.00</b>	<b>\$26,810.00</b>	<b>\$37,145.00</b>	<b>\$37,145.00</b>
<b>Sub Total</b>	<b>\$245,659.00</b>	<b>\$212,717.00</b>	<b>\$221,204.00</b>	<b>\$222,145.00</b>
<b>Future Parking System Changes</b>				
<b>On-Street Meter Rate Increase</b>	\$0.00	\$0.00	\$0.00	\$392,398.00
<b>Citation Revenue</b>	\$0.00	\$0.00	\$0.00	\$134,400.00
<b>Sub Total</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$526,798.00</b>
<b>REVENUE TOTAL</b>	<b>\$245,659.00</b>	<b>\$212,717.00</b>	<b>\$221,204.00</b>	<b>\$748,943.00</b>
<b>EXPENSE</b>				
<b>Staff Expense (Salary + Benefits + Medical)</b>				
Director of Operations	\$0.00			\$85,663.00
Office Secretary Bookkeeper	\$0.00			\$49,588.00
Sr. Meter Collector & Repairman	\$74,039.00			\$76,205.00
Meter Collector & Repairman	\$67,399.00			\$43,949.00
Maintenance & Repairman	\$63,505.00			\$42,856.00
PEO1	\$61,687.00			\$61,687.00
PEO2	\$61,687.00			\$61,687.00
PEO3	\$61,687.00			\$42,856.00
PEO4	\$61,687.00			\$42,856.00
<b>Staff Sub Total</b>	<b>\$451,691.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$507,347.00</b>
<b>Administrative Expense</b>				
Bank Charges / CC				
Chairman Expense				
Communications (Cable)				
Consulting Fees				
Auto & Gen. Liab. Insurance				
Debt Service				
Dues & Subscriptions				
Meeting Expense				
Office Supplies & Equipment				
Postage				
Telephone Expense				
Travel & Conf Expense				
<b>Administrative Expense Sub Total</b>				<b>\$25,000.00</b>
<b>Operating Expense</b>				
Cleaning Supplies				
Contingency				
Employee Training				
Equip. Repairs Maintenance				
Landscaping Expenses				
Lot Lighting /Utility				
Lot Maintenance & Repairs				
Meter Parts & Repairs				
Signage				
Snow Removal & Supplies				
Uniform Expense				
Vehicle Repair & Maintenance				
Vehicle fuel				
<b>Operating Expense Sub Total</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$75,000.00</b>
<b>Capital Expense: Maintenance, Repair, Renewal</b>				<b>\$125,000.00</b>
<b>Parking Equipment Replacement &amp; Facility Repair</b>				<b>\$125,000.00</b>
<b>Capital Expense Sub Total</b>				<b>\$125,000.00</b>
<b>EXPENSE TOTAL</b>	<b>\$451,691.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$732,347.00</b>
<b>PROFIT/LOSS</b>	<b>(\$206,032.00)</b>			<b>\$16,596.00</b>

Source: City of Trenton Parking Authority and Bier Associates, 2014.

# City of Trenton On-Street Parking Map (Existing Condition)

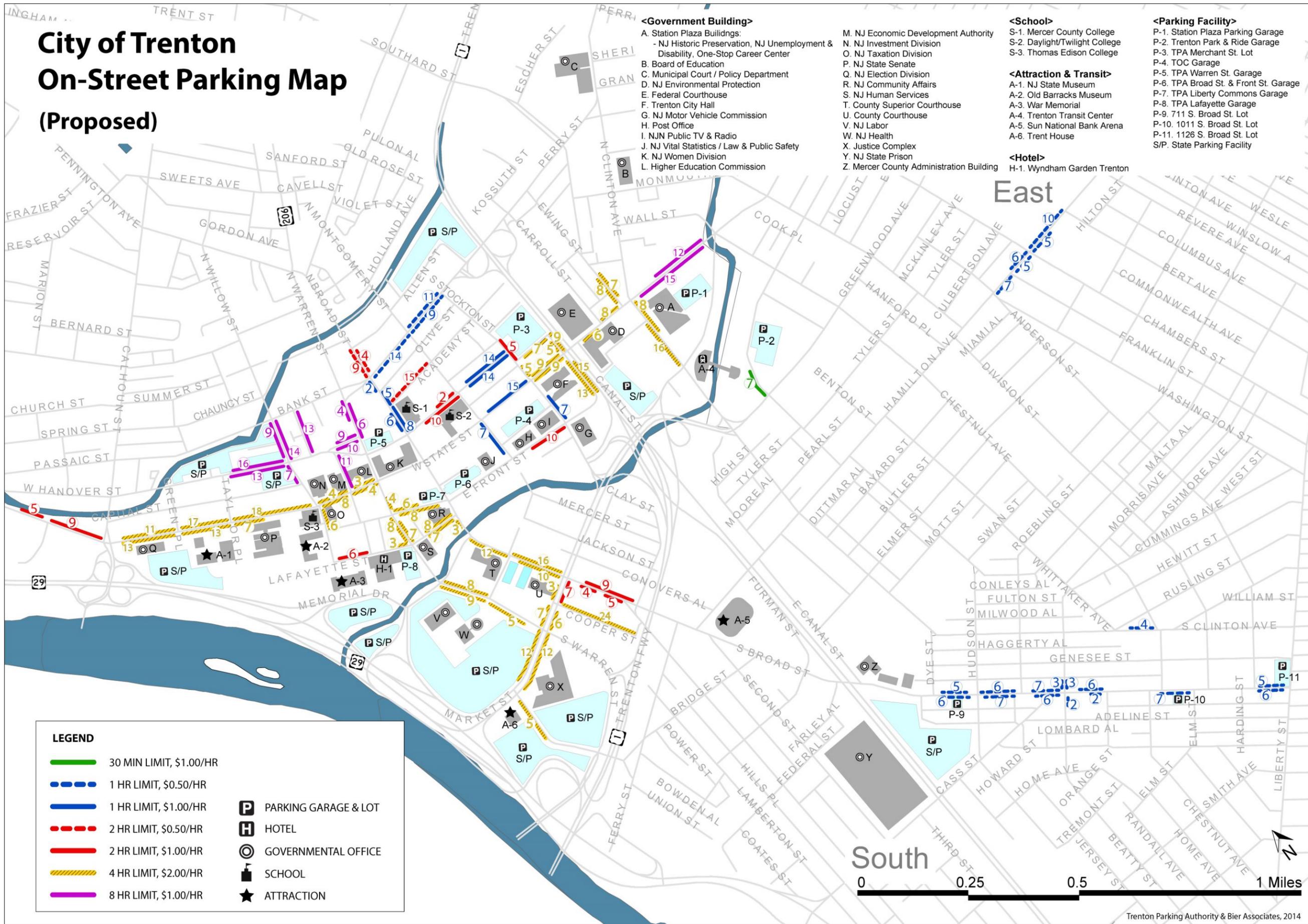


**LEGEND**

<span style="color: green;">—</span> 30 MIN LIMIT	<b>P</b> PARKING GARAGE & LOT
<span style="color: blue;">—</span> 1 HR LIMIT	<b>H</b> HOTEL
<span style="color: red;">—</span> 2 HR LIMIT	<b>⊙</b> GOVERNMENTAL OFFICE
<span style="color: black;">- - -</span> \$0.50 / HR	<b>🏫</b> SCHOOL
<span style="color: black;">—</span> \$1.00 / HR	<b>★</b> ATTRACTION

- <Government Building>**  
 A. Station Plaza Buildings:  
 - NJ Historic Preservation, NJ Unemployment & Disability, One-Stop Career Center  
 B. Board of Education  
 C. Municipal Court / Policy Department  
 D. NJ Environmental Protection  
 E. Federal Courthouse  
 F. Trenton City Hall  
 G. NJ Motor Vehicle Commission  
 H. Post Office  
 I. NJN Public TV & Radio  
 J. NJ Vital Statistics / Law & Public Safety  
 K. NJ Women Division  
 L. Higher Education Commission
- M. NJ Economic Development Authority  
 N. NJ Investment Division  
 O. NJ Taxation Division  
 P. NJ State Senate  
 Q. NJ Election Division  
 R. NJ Community Affairs  
 S. NJ Human Services  
 T. County Superior Courthouse  
 U. County Courthouse  
 V. NJ Labor  
 W. NJ Health  
 X. Justice Complex  
 Y. NJ State Prison  
 Z. Mercer County Administration Building
- <School>**  
 S-1. Mercer County College  
 S-2. Daylight/Twilight College  
 S-3. Thomas Edison College
- <Attraction & Transit>**  
 A-1. NJ State Museum  
 A-2. Old Barracks Museum  
 A-3. War Memorial  
 A-4. Trenton Transit Center  
 A-5. Sun National Bank Arena  
 A-6. Trent House
- <Hotel>**  
 H-1. Wyndham Garden Trenton
- <Parking Facility>**  
 P-1. Station Plaza Parking Garage  
 P-2. Trenton Park & Ride Garage  
 P-3. TPA Merchant St. Lot  
 P-4. TOC Garage  
 P-5. TPA Warren St. Garage  
 P-6. TPA Broad St. & Front St. Garage  
 P-7. TPA Liberty Commons Garage  
 P-8. TPA Lafayette Garage  
 P-9. 711 S. Broad St. Lot  
 P-10. 1011 S. Broad St. Lot  
 P-11. 1126 S. Broad St. Lot  
 S/P. State Parking Facility

# City of Trenton On-Street Parking Map (Proposed)



**<Government Building>**

- A. Station Plaza Buildings:
  - NJ Historic Preservation, NJ Unemployment & Disability, One-Stop Career Center
- B. Board of Education
- C. Municipal Court / Policy Department
- D. NJ Environmental Protection
- E. Federal Courthouse
- F. Trenton City Hall
- G. NJ Motor Vehicle Commission
- H. Post Office
- I. NJN Public TV & Radio
- J. NJ Vital Statistics / Law & Public Safety
- K. NJ Women Division
- L. Higher Education Commission

- M. NJ Economic Development Authority
- N. NJ Investment Division
- O. NJ Taxation Division
- P. NJ State Senate
- Q. NJ Election Division
- R. NJ Community Affairs
- S. NJ Human Services
- T. County Superior Courthouse
- U. County Courthouse
- V. NJ Labor
- W. NJ Health
- X. Justice Complex
- Y. NJ State Prison
- Z. Mercer County Administration Building

**<School>**

- S-1. Mercer County College
- S-2. Daylight/Twilight College
- S-3. Thomas Edison College

**<Attraction & Transit>**

- A-1. NJ State Museum
- A-2. Old Barracks Museum
- A-3. War Memorial
- A-4. Trenton Transit Center
- A-5. Sun National Bank Arena
- A-6. Trent House

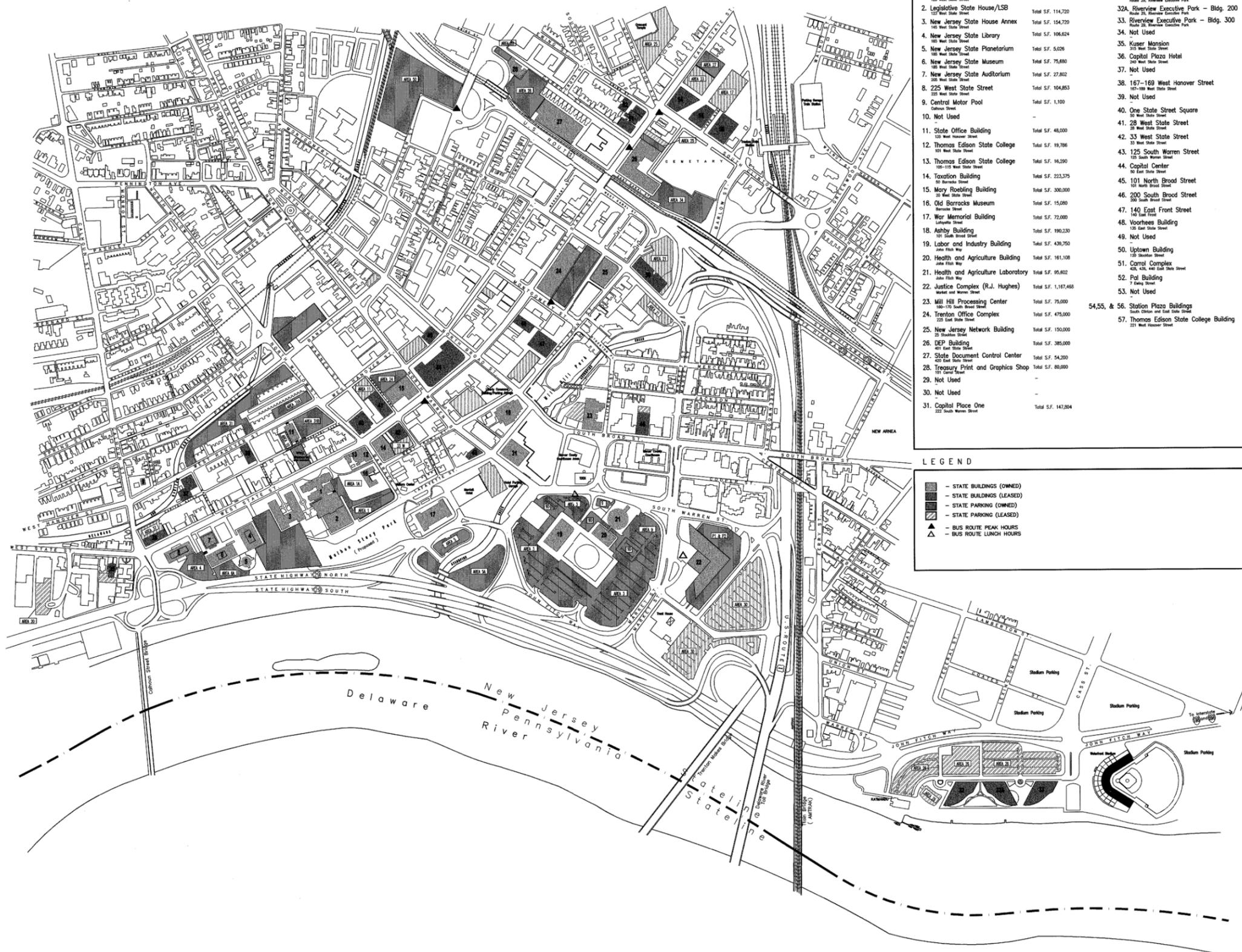
**<Hotel>**

- H-1. Wyndham Garden Trenton

**LEGEND**

	30 MIN LIMIT, \$1.00/HR		PARKING GARAGE & LOT
	1 HR LIMIT, \$0.50/HR		HOTEL
	1 HR LIMIT, \$1.00/HR		GOVERNMENTAL OFFICE
	2 HR LIMIT, \$0.50/HR		SCHOOL
	2 HR LIMIT, \$1.00/HR		ATTRACTION
	4 HR LIMIT, \$2.00/HR		
	8 HR LIMIT, \$1.00/HR		





**BUILDING NUMBER LEGEND**

State Owned Buildings		State Leased Buildings	
1. Executive State House	Total S.F. 114,472	32. Riverview Executive Park - Bldg. 100	Total S.F. 100,000
2. Legislative State House/LSB	Total S.F. 114,720	32A. Riverview Executive Park - Bldg. 200	Total S.F. -
3. New Jersey State House Annex	Total S.F. 154,700	33. Riverview Executive Park - Bldg. 300	Total S.F. 200,000
4. New Jersey State Library	Total S.F. 106,624	34. Not Used	-
5. New Jersey State Planetarium	Total S.F. 5,026	35. Kusser Mansion	Total S.F. 15,506
6. New Jersey State Museum	Total S.F. 76,680	36. Capital Plaza Hotel	Total S.F. 114,323
7. New Jersey State Auditorium	Total S.F. 27,802	37. Not Used	-
8. 225 West State Street	Total S.F. 104,853	38. 167-169 West Hanover Street	Total S.F. 26,800
9. Central Motor Pool	Total S.F. 1,100	39. Not Used	-
10. Not Used	-	40. One State Street Square	Total S.F. 162,502
11. State Office Building	Total S.F. 48,000	41. 28 West State Street	Total S.F. 73,231
12. Thomas Edison State College	Total S.F. 19,796	42. 33 West State Street	Total S.F. 163,479
13. Thomas Edison State College	Total S.F. 16,290	43. 125 South Warren Street	Total S.F. 10,902
14. Taxation Building	Total S.F. 223,375	44. Capital Center	Total S.F. 233,600
15. Mary Roebing Building	Total S.F. 300,000	45. 101 North Broad Street	Total S.F. 15,091
16. Old Barracks Museum	Total S.F. 15,080	46. 200 South Broad Street	Total S.F. 58,577
17. War Memorial Building	Total S.F. 72,000	47. 140 East Front Street	Total S.F. 106,720
18. Ashby Building	Total S.F. 190,230	48. Voorhees Building	Total S.F. 65,013
19. Labor and Industry Building	Total S.F. 436,750	49. Not Used	-
20. Health and Agriculture Building	Total S.F. 161,108	50. Uptown Building	Total S.F. 86,210
21. Health and Agriculture Laboratory	Total S.F. 95,602	51. Carrol Complex	Total S.F. 51,425
22. Justice Complex (R.J. Hughes)	Total S.F. 1,187,468	52. Pal Building	Total S.F. 19,360
23. Mill Hill Processing Center	Total S.F. 75,000	53. Not Used	-
24. Trenton Office Complex	Total S.F. 475,000	54, 55, & 56. Station Plaza Buildings	Total S.F. 274,290
25. New Jersey Network Building	Total S.F. 150,000	57. Thomas Edison State College Building	Total S.F. 35,703
26. DEP Building	Total S.F. 385,000		
27. State Document Control Center	Total S.F. 54,200		
28. Treasury Print and Graphics Shop	Total S.F. 80,000		
29. Not Used	-		
30. Not Used	-		
31. Capital Place One	Total S.F. 147,804		

**LEGEND**

- STATE BUILDINGS (OWNED)
- ▨ STATE BUILDINGS (LEASED)
- ▩ STATE PARKING (OWNED)
- ▧ STATE PARKING (LEASED)
- ▲ BUS ROUTE PEAK HOURS
- △ BUS ROUTE LUNCH HOURS

STATE OF NEW JERSEY  
DEPARTMENT OF THE TREASURY  
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION  
COMMERCE BUILDING  
20 WEST STATE STREET  
CN 231  
TRENTON, NEW JERSEY 08625



Revision Date	Description	By
02-12-98	1. New Hotel and Parking Garage added.	KJW
12-08-98	1. New Parking Garage for Riverview added. 2. New Parking Garage for Riverview added. 3. New Edison State College Building added. 4. New Liberty Commons Building added.	KJW
05-04-98	1. New State Surface Parking Lot Area 27 added. 2. State Surface Parking Lot Area 30 once state owned now leased added.	KJW
08-25-98	1. Leased Buildings #34 & #53 deleted from map. 2. Trenton Commons deleted and East State Street extended. 3. Site added for New World War II Memorial.	KJW

Date Issue Project  
State of New Jersey  
City of Trenton (Downtown Area)

Date 12-15-98 Job No. Sln\_b13\_06\_07\_05.dwg  
Description State of New Jersey Buildings and Parking Lots/Garages Leased and Owned  
Scale None Drawn By  
Reference North Drawing No. MSP-A1.1  
Sheet: 1 of 1

Source: City of Trenton, 1998.