



Troy, New York

Downtown Parking Study

Final Report | June 2016

Table of Contents	Executive Summary	A
	1.0 Parking Study Overview	1
	1.1 Study Area	
	1.2 Study Goals	
	1.3 Background	
	2.0 Public Engagement/Participation	9
	2.1 Methodology	
	2.2 Survey Participation	
	2.3 Key Findings	
	2.4 Survey Results	
	3.0 Existing Conditions Assessment	23
	3.1 Key Findings	
	3.2 Infrastructure	
	3.3 Transportation System	
	3.4 Parking Supply	
	3.5 Parking Regulations	
	3.6 Parking Rates and Revenues	
	3.7 Enforcement and Management	
	3.8 Parking Demand (Utilization)	
	4.0 Parking Supply and Demand Analysis	72
	4.1 Key Findings	
	4.2 Methodology	
	4.3 Parking Supply and Demand Analysis	
	5.0 Findings and Recommendations	76
	5.1 Findings	
	5.2 Recommendations	

MAPS

1. Study Area
2. Parking Infrastructure: On- and Off-Street Locations
3. Parking Infrastructure: On-Street Striping
4. Parking Infrastructure: Pay Stations and On-Street Costs
5. Downtown Street Network and Circulation Pattern
6. Downtown AADT (Annual Average Daily Traffic) Values (2012)
7. Major Downtown Destinations
8. On-Street Parking by Time Limit
9. On-Street parking by 'No Parking' Regulation
10. Off-Street Parking by User-Related Restriction
11. Off-Street Parking by Facility Ownership
12. On-Street Utilization: Thursday July 30, 2015 10AM – 3PM
13. Off-Street Utilization: Thursday July 30, 2015 10AM – 3PM
14. On-Street Utilization: Friday July 31, 2015 10AM – 3PM
15. Off-Street Utilization: Friday July 31, 2015 10AM – 3PM
16. On-Street Utilization: Friday July 31, 2015 5PM – 10PM
17. Off-Street Utilization: Friday July 31, 2015 5PM – 10PM
18. On-Street Utilization: Saturday August 1, 2015 9AM – 12PM
19. Off-Street Utilization: Saturday August 1, 2015 9AM – 12PM

FIGURES

1. "How well is parking working in Downtown?"
2. "How are current parking conditions affecting the attraction of new business in Downtown?"
3. "How is parking enforcement helping to attract visitors to Downtown?"
4. "Are parking areas/locations easy to find?"
5. "Is signage adequate to identify parking areas?"
6. On-street parking management choices
7. Parking and circulation choices
8. City of Troy Parking Revenues 2012 - 2105 (Projected)
9. City of Troy Parking Meter Revenues by Month 2012 - 2015 (Projected)

TABLES

1. On-Street Parking by Time Limit (Grouped)
2. On-Street Parking by Time Limit (Detailed)
3. On-Street Parking by No Parking Hours
4. Off-Street Parking User-Related Restriction
5. Presence of Pay Stations
6. Off-Street Parking by Ownership
7. On-Street Utilization by Counting Period
8. Free vs. Pay Parking Utilization by Counting Period
9. Off-Street Utilization by Counting Period
10. On-Street Utilization 1/4 Mile around Monument Square
11. Off-Street Utilization 1/4 Mile around Monument Square

APPENDICES

- A. Survey Questions & Responses

ACRONYMS

AADT	Annual Average Daily Traffic
ADA	American Disabilities Act
ALB	Albany International Airport or Albany-Rensselaer Rail Station
BID	Business Improvement District
BRT	Bus Rapid Transit
CBD	Central Business District
CDRPC	Capital District Regional Planning Commission
CDTA	Capital District Transit Authority
CDTC	Capital District Transportation Committee
DEDP	Downtown Economic Development Plan
ED	Executive Director
LWRP	Local Waterfront Revitalization Program
MSA	Metropolitan Statistical Area
NYS DOT	New York State Department of Transportation
RPI	Rensselaer Polytechnic Institute
TCSP	Transportation, Community, and System Preservation
THA	Troy Housing Authority

EXECUTIVE SUMMARY

In December 2014, the City of Troy Department of Planning and Community Development commissioned a parking study of Troy's Downtown with the goal of completing the following six (6) objectives:

1. Develop a market-based parking management system for City of Troy;
2. Develop a responsive and flexible parking system for residents and visitors;
3. Develop an equitable parking system towards type of user and towards other transportation modes;
4. Develop short-term and implementable parking strategies that improve function and perception of parking system;
5. Identify national best practices; and
6. Provide recommendations for integration of the City's parking management functions.

Study Area

The City of Troy has a high quality, intact, walkable street grid. Troy already has the built environment in place to succeed in attracting visitors, new businesses, and new residents. Virtually everything located in the study area – Downtown Troy – can be reached within a five-minute walk (0.25-mile).

The area reviewed as part of this parking study was determined by the City of Troy Planning and Community Development Department. This area is 0.60-miles in length (at its longest point from north to south) and 0.45-miles in width (at its widest point from east to west). It is bounded by Federal Street to the north, Liberty Street to the south, 6th Street to the east, and the Hudson River to the west.

Capital Region Context

Downtown Troy is, and will continue to be, a regional destination for higher learning, cultural institutions, parks and recreation, shopping and dining – to name just a few of its attractions. As such, adequate parking is a necessary element to accommodate residents, employees, and visitors within Downtown Troy.

The City of Troy is situated east of the confluence of the Hudson and Mohawk Rivers in Rensselaer County, approximately eight miles northeast of the City of Albany. It is part of the Albany-Schenectady-Troy Metropolitan Statistical Area (MSA). In 2014, the U.S. Census Bureau estimated that the population of the MSA was 880,167, ranking it 61st in the United States. In area, Troy encompasses approximately 11 square miles and has a population of 49,4910 residents (U.S. Census Bureau, 2014 population estimate).

The topography of Troy is reflective of the Hudson River Valley – it is hilly, with the western portion of the city being located on the comparatively flat eastern bank of the Hudson River and the eastern portion of the city sloping steeply to higher terrain. The City features a uniform street grid within those areas that are relatively flat near the river. Troy has approximately seven miles of Hudson River waterfront and the Federal Lock at Troy serves as a gateway west by way of the Erie Canal.

Major transportation corridors that service Troy include I-787, I-87 for points north and south, and I-90 for points east and west. Six (6) bridges, the Troy-Menands Bridge, Ferry Street Bridge (from Watervliet), Green Island Bridge (from Green Island), Collar City Bridge (from Colonie), 112th Street Bridge, and Broad Street Bridge cross from the western bank of the Hudson River over to Troy. The study area for this report included two (2) of these bridges: the Ferry Street Bridge to the south and the Green Island Bridge to the north.

Parking Study Findings

Through the course of 2015, extensive fieldwork, desktop research, and analysis of the findings was completed and all six (6) of the objectives have been completed. The team recognized that parking is an absolutely essential factor in developing a coherent, well-designed, multi-modal transportation system.

The perception of parking availability, or conversely, the perception of the lack of adequate parking, can influence consumer decision-making and shape market habits. This study analyzed the current parking supply and demand to effectively determine any imbalances that affect Downtown Troy. The conclusions drawn from this analysis are briefly described below to provide a summary of the findings as they relate to the six (6) study objectives outlined above. Each of these six (6) key findings are described in more detail later in this study:

1. Develop a market-based parking management system for City of Troy

Based on the supply and demand (utilization) analysis, the current number of parking spaces in Downtown is adequate. Supply is available, and in some places Downtown Troy is over-parked. The recommendations at the end of this study seek to aid Troy in creating a balance between on-street and off-street parking, and between high-demand and low-demand areas.

2. Develop a responsive and flexible parking system for residents and visitors

The existing parking system in Downtown Troy has the potential to be both responsive and flexible – certain aspects of its current configuration are not intuitive to visitors or user-friendly to residents. Recommendations include improving wayfinding and destination signage that informs users of available parking options, and expanding public parking facility access to more users.

3. Develop an equitable parking system towards type of user and towards other transportation modes

The City of Troy is taking great strides to develop a fully-functional multi-modal transportation network as part of its Comprehensive Plan process. The existing street grid is inherently walkable and well-laid out. Virtually any destination in Downtown Troy can be reached within a five-minute walk. The parking supply in Downtown Troy lends itself to facilitating further development of the multi-modal system, with ample park and ride opportunities available to users of the CDTA's extensive bus routes. More could be done by the City of Troy to encourage bike-ability and the implementation of a bikeshare program; working in partnership with RPI and Sage College. However, it will take a region-wide (Capital District) effort to see the implementation of carshare options in Downtown Troy as its relatively small geographically size (0.44-square miles) might limit its effectiveness.

4. Develop short-term and implementable parking strategies that improve function and perception of parking system

Small changes can immediately be made to both Downtown Troy's existing parking infrastructure and existing parking management policies that can provide increased functionality and ease-of-use to both visitors and residents in the near-term. Installation of wayfinding signage, elimination of no parking restrictions from 4:00AM to 6:00AM on residential streets, and the installation of parking meter stations in the heart of Downtown Troy are a handful of the changes that can be made in the short-term.

5. Identify national best practices

No findings were developed in a vacuum, but rather were formulated after extensive field study, thorough analysis of the data collected in the field, industry standards, best practices, and comparative study. The team utilized regional and national best practices to formulate our recommendations. We looked to see what has worked and continues to work well in other cities, both regionally and nationally, and then assessed whether such strategies would be effective in Downtown Troy (e.g. what might work well in Downtown Boston might not prove to be a corollary to what might work well in Downtown Troy). Dr. Donald Shoup's seminal work *The High Cost of Free Parking* is widely regarded as the best work in the field and is the basis for the 85% goal occupancy rate for on-street parking utilized throughout the field of planning, and in this study. Parking Management Best Practices by Todd Litman was consulted for developing solutions to Objective #1, as it outlines ways in which parking facility policy and management can directly impact, both real and perceived, parking supply. Jeff Speck's *The Walkable City: How Downtown Can Save America, One Step at a Time* influenced the team's analysis of Downtown Troy's street grid and overall walkability.

6. Provide recommendations for integration of the City's parking management functions

The City of Troy manages parking through what are effectively four (4) separate entities including: the Troy Treasurer – for payments and acquisition of monthly permits; Troy Police Department and Department of Public Works (street-cleaning team) – for enforcement of parking policies and regulations, and the Parking Department – for management of public information (website), establishment of parking permit fees, and management of publicly-owned garages and off-street parking lots. Recommendations have been made that centralize the management of staff, information, and enforcement.

1.0 PARKING STUDY OVERVIEW

The City of Troy's Department of Planning and Community Development has commissioned this Downtown Parking Study, with the primary objective to forecast immediate (1-3 year) parking needs and associated accommodation strategies. Based on the scope of work, the Downtown Troy Parking Study engaged community residents, documented current parking activities, and recommended a series of strategies to achieve City goals. While these strategies will focus on short-term, implementable strategies, the Parking Study is meant to be complementary with the ongoing comprehensive planning process, providing data and analysis to inform long-term policies and align with goals and policies of the Comprehensive Plan.

1.1 STUDY AREA

The study area was determined by the City of Troy Planning and Community Development Department in conjunction with the boundaries established for the Downtown Business Improvement District (BID). The study area encompasses the Downtown core and is approximately 287 acres and at its widest points, approximately 0.60 miles from north to south (along 4th Avenue), and 0.45 miles from east to west (along Ferry Street). Map 01 shows the boundaries for the study area. The Study area is bounded by:

The Study Area is bounded by:

- Federal Street to the north;
- Liberty Street to the south;
- 6th Avenue to the east; and
- Hudson River to the west.

MAP 01 | Study Area

-  Study Area
-  Monument Square Quarter-Mile



1.2 STUDY GOALS

The Downtown Parking Study seeks to accomplish the following goals:

1. Develop a market-based parking management system for City of Troy;
2. Develop a responsive and flexible parking system for residents and visitors;
3. Develop an equitable parking system towards type of user and towards other transportation modes;
4. Develop short-term and implementable parking strategies that improve function and perception of parking system;
5. Identify national best practices; and
6. Provide recommendations for integration of the City's parking management functions.

1.3 BACKGROUND

Downtown Troy is undergoing a period of revitalization and growth, similar to urban revitalization trends occurring in other cities in the northeast. A new Comprehensive Plan, Local Waterfront Revitalization Program (LWRP), and Downtown Economic Development Plan (DEDP) are being completed to provide recommendations that will build upon that momentum in order to encourage population growth and economic development. Regionally, other planning efforts have been completed, or are underway, that also seek to capitalize and strengthen this momentum.

To understand parking in the context of past planning efforts, this study included review of several reports and studies. These planning documents provide both ongoing policies and specific development plans that impact Downtown during both short-term and long-term time frames. Thus, it is necessary to understand the impact of these planning efforts to develop short-term and long-term parking recommendations.

Overall, a review of these reports indicates a preference towards a more equitable and inclusive transportation system. That system includes creating policies and physical infrastructure that incentivize pedestrian, bicycle, and public modes over automobile trips. If implemented city-wide this new equitable and inclusive system would have a positive effect on current parking conditions, potentially reducing the demand for parking facilities.

A brief summary of these reports and studies, and their treatment of issues, opportunities, and goals related to parking and transportation, is described in the following pages.

Comprehensive Plan, 2003

The 2003 City of Troy Comprehensive Plan includes a summary of existing conditions for the city-wide transportation network. The existing conditions report was meant to be the first step used to inform a new Comprehensive Plan, but only the inventory of conditions was completed. The existing conditions summary includes conditions of roads, transit system, goods movement, pedestrian network, bicycle network, water transportation and vehicle traffic volumes. While the 2003 summary does not address parking specifically, it provides insight into the conditions of the overall transportation network as it existed in 2003 and how those conditions affect, and are affected, by parking conditions. Relevant statements made in the plan related to Downtown parking include:

- There is still considerable congestion during AM/PM peak hours. Most of the congestion is a result of vehicles accessing I-787, specifically along Hoosick and High Streets. Along with peak hour congestion, traffic volumes increased between 1980 and 2000 within both the Capital District and the City of Troy.
- Almost one-third (1/3) of city streets were in poor condition at the time the comprehensive planning tasks were completed.
- High development densities make transit a viable option for many residents in the City of Troy. The CDTA operates 14 routes within the City of Troy, which serve almost 400,000 riders per year.
- Delivery trucks are forced to use neighborhood streets because of roadway widths and lane alignments. This made traveling difficult or inconvenient along predominately commercial corridors.
- Pedestrian and bicycle networks can provide opportunities for recreation, reduce vehicle trips and emissions, and contribute to healthy urban environments that are more aesthetically pleasing. However, there is a lack of both individual bicycle facilities as well as a network of bicycle routes.

Downtown Office and Parking Assessment Study, 2003

This study assessed existing and potential office sites and parking facilities in Downtown Troy. The goal was to determine if the relocation of New York State agencies from the Harriman Campus in Albany, NY could be accommodated. The study found that the majority of properties inventoried within the Central Business District (CBD) are architecturally and aesthetically desirable with many characteristics that support a walkable environment. However, it also concluded the utilization of existing on-street and off-street parking in Downtown Troy did not accommodate the (2003) demand, or the anticipated increase in demand for new commuter parking driven by the construction of a NYS office development.

Notable for this study, the observed parking utilization rates for on-street and off-street parking facilities within Downtown were 72 percent and 81 percent, respectively. Contemporary effective utilization is commonly viewed to occur at 85% occupancy. Only utilization above 85% is viewed as potentially problematic. While the utilization rates from the 2003 study were below this threshold, the study concluded that on-street and off-street parking was not sufficient to accommodate an increase in demand.

Congress and Ferry Street Corridor Master Plan, 2009

This Master Plan was developed as a framework to create a high-density neighborhood in the Congress and Ferry Street corridor. It came as an outgrowth of the Congress, Ferry & 8th Street Corridor Mixed-Use Initiative from 2006. That initiative was a collaboration of multiple local stakeholders to create a mixed-use development along the Congress and Ferry Street corridor.

The Master Plan recommended up to 500 residential units, 30,000 square feet of retail, hotel and restaurants, and up to 450,000 square feet of commercial space, a movie theater and structured parking. Incorporated in the plan was a new road alignment to provide a better gateway and intersection with 8th Street, Ferry Street and Congress Street.

Following the adoption of the Master Plan in 2009, work on the project commenced with Phase I of the project involving reopening 6th Street between Ferry and Congress Streets. Phase I infrastructure improvements completed in December 2010 included: upgrades to road, water and sewer systems, installation of overflow drainage, and new sidewalks and electrical utilities. The final phase entailed the construction of 100,000 square feet of mixed-use space (student housing and retail) and additional infrastructure improvements to Congress Street.

Business Improvement District Plan, 2008

The 2008 Business Improvement District Plan provides a summary of the legal requirements, formation process, goals, programs, budget, and funding resources to establish and operate a Business Improvement District (BID) in Downtown Troy. The plan has been used for improving properties, attracting tenants, and undertaking programs to enhance the physical and economic environment within the district. While the BID plan addresses many aspects of economic growth and development of Downtown Troy, it does not directly address parking within Downtown Troy. Where possible, future parking strategies should leverage efforts by the BID and the BID Plan, in order to integrate land use, transportation, and programmed activities.

Realize Troy, 2015 – Present

Realize Troy is the current planning process being undertaken by the City. It includes development of a Comprehensive Plan, Local Waterfront Revitalization Program (LWRP), and Downtown Economic Development Plan (DEDP).

At the time this parking study was being completed, the Realize Troy planning process included an inventory of existing conditions, multiple public meetings and community visioning workshops, and development of policy recommendations. The analysis of the mobility network examined all modes (pedestrian, bicycle, vehicle, public, freight, water, regional, etc.) of transportation. It concluded that development of the City, guided by the 1962 Comprehensive Plan, had prioritized one singular mode, vehicular, at the expense of all others.

In contrast, the current Comprehensive Plan will provide a more equitable and inclusive approach to design and investment of mobility infrastructure across all modes. In addition to some of the overall principles that the Comprehensive Plan seeks to address (sustainability, walkability, new urbanism and smart growth), the planning process has also included an inventory, analysis and future recommendations specific to increasing this spectrum of mobility within the City.

While this parking study is a separate study in terms of the project scope (i.e., parking in Downtown Troy only) and time frame (i.e., short-term implementable recommendations) from the Comprehensive Plan, the study will embody the overall principles of the Comprehensive Plan and craft recommendations that will complement the Comprehensive Plan while seeking to achieve parking system improvements within Downtown.

New Visions 2040 Plan (Regional Transportation Plan)

The Capital District Transportation Committee's (CDTC) New Visions for a Quality Region is a vital component of the region's transportation plan. All projects that receive federal funding or receive federal approval, must originate from the document. New Visions for a Quality Region examines the future of the Capital District's transportation system for the next 25 years.

In 2013, the CDTC began work on updating the previous plan, completed in 2010, and in 2015 it completed the New Visions for a Quality Region – which includes a framework that will help shape transportation planning efforts in the Capital District for the foreseeable future. Public participation and input was sought and gathered at every stage in the

process – the plan was created to ensure that the public was involved and supported its basic principles.

A renewed emphasis on bicyclists, pedestrians, children, and the elderly was a major component of the plan, as was an examination of the Capital District's transit service (operated by the Capital District Transit Authority), including projections for future transit ridership. In addition, the plan maintained its strong commitment to ensuring that the region's existing highway and bridge infrastructure were maintained in good condition and to developing and implementing traffic information system technology to ease traffic congestion.

Capital District Regional Planning Commission Strategic Plan 2016-2018

The Capital District Regional Planning Commission (CDRPC) is a regional planning agency that serves Albany County, Rensselaer County, Saratoga County, and Schoenectady County. The CDRPC provides those counties with demographic information, development trends information, and planning collaboration in an effort to find practical solutions to the challenges facing the Capital District.

The CDRPC adopted its Strategic Plan FY 2016-2018 at its December 2015 Commission meeting. The Strategic Plan FY 2016-2018 outlined the following four (4) primary strategic initiatives:

1. Develop an integrated communications and outreach plan to promote the role and value of the Commission and continue to explore opportunities for expanded regional partnerships;
2. Continue to provide and seek opportunities for facilitation and project management contacts, within the constraints of funding opportunities and staffing, that increases the role of CDRPC in supporting local, inter-municipal, and regional collaboration initiatives;
3. Invest in the agency's IT platform to enhance in-house accessibility of information among staff and maintain a more user-friendly website while ensuring the agency's value-added in the interpretation of the data to the region's stakeholders; and
4. Implement a leadership succession planning process to minimize the loss of institutional knowledge and to create a smooth, well-orchestrated transition for the Executive Director (ED) position.

I-787 Livable Corridor Planning Initiative (to-be completed)

The Capital District Transportation Committee (CDTC), working with the New York State Department of Transportation (NYSDOT) and the City of Albany, was awarded a \$240,000

grant through the U.S. Department of Transportation's Transportation, Community, and System Preservation (TCSP) program for identifying potential designs for I-787 that lend themselves to Downtown economic development, brownfield redevelopment, and walkability. This combination transportation and land-use planning effort would become the I-787 Livable Corridor Planning Initiative. The portion of I-787 to be examined stretches from Exit 2 to Exit 9 and included the City of Albany, the City of Watervliet, the Village of Menands, and the Town of Colonie.

The TCSP program required that the initiative specifically address the following four (4) topics:

1. Documentation of both short-term and long-term infrastructure costs associated with I-787 and its related corollary roads;
2. Determine any ways in which long-term infrastructure costs can be reduced through alternative designs and finding ways to improve the transportation and community compatibility through design.
3. Pinpoint short-term access improvements that will help support waterfront revitalization and economic investment in Downtown(s) and brownfield(s); and
4. Involve the general public in the drafting of the I-787 Livable Corridor Planning Initiative.

2.0 PUBLIC PARTICIPATION

While quantifiable methods for utilization rates of Downtown parking are invaluable, community input and feedback provides a critical basis for this study. First-hand descriptions of issues and opportunities provide a broader picture of Downtown parking beyond the utilization count days. Thus, the purpose of the stakeholder engagement process was to obtain input from Downtown employers, businesses, community leaders, constituents, the general public, and local institutions. The goal of the process was to ensure the views on parking issues, opportunities, and an understanding of existing conditions formed the basis for the study and resulting recommendations for Downtown Troy.

2.1 METHODOLOGY

Along with input from the general public, the City of Troy Planning and Community Development Department generated a list of stakeholders to contact for direct input. For both the stakeholders and general public, an online survey was used as the method of gathering input and feedback. Questions for the survey were generated based on input from the City of Troy Planning and Community Development Department, history of planning and parking studies for Troy, and comparable parking studies. The survey was designed to collect comprehensive input and feedback on current parking conditions in the study area and how businesses, residents, institutions, and visitors are affected. As an integral part to the study, the final set of survey questions was presented and approved by the City of Troy Commissioner of Planning and Community Development. The survey was first distributed to the list of stakeholders developed by the City, and then made publicly available on the City's website from June 2, 2015 to June 19, 2015. The survey questions and responses are included in Appendix A.

2.2 SURVEY PARTICIPATION

Responses were obtained from 375 survey participants. While most respondents answered the survey in its entirety, it is noted that some answered only portions of the survey questions and provided some open-ended responses. In addition, only a portion (approximately 35%) of respondents provided contact information and a slightly higher percentage stated that they would like to receive additional information related to the Parking Study.

375
SURVEY
RESPONDENTS

In order to understand the perspective of answers that were provided, respondents were asked to identify in what capacity they were answering questions. Weekend visitors may provide a different opinion of parking conditions compared to a daily Downtown Troy office worker. Most of the survey respondents said they are actively involved in the Downtown. Of the 375 survey respondents, the following summarizes their involvement in the Downtown:

- 55.9%** **Resident**
Downtown or other Neighborhood
- 14.4%** **Employee**
Street level retail, Business Office, etc.
- 13.6%** **Non-Resident**
Visiting, Shopping, Dinning, Recreation, School, etc.
- 13.4%** **Business Owner**
Street level retail, Business Office, etc.
- 2.7%** **Head of Institution**
Storefront, Upper Floor, etc.

A majority, or 88.6% of the respondents, reported no involvement or discussions regarding Downtown parking. For those who responded, only a few stated they have discussed parking among other residents, businesses and council members. Several of the respondents said they have been involved in previous discussions through municipal and government agency workshops and meetings (e.g., Realize Troy, City Summit, Comprehensive Plan Update, BID meetings, Council Meetings, Ad hoc Parking Committee).

2.3 KEY FINDINGS

1. 375 respondents to the online survey;
2. 88.6% of all respondents reported no prior or current involvement in discussions on parking in Downtown Troy – the vast majority of respondents were being engaged on the topic for the very first time;
3. The majority of respondents were “less than satisfied” with parking in Downtown Troy;
4. The majority of respondents perceived parking to be a “hurtful” factor in attracting new businesses to Downtown Troy;
5. The majority of respondents perceived parking enforcement to result in a “decrease” in the number of visitors to Downtown Troy;
6. 59.6% of business owners who responded neither provide parking for their employees or customers;
7. 43.5% of residents park on-street, 34.7% utilized residential driveways, and 20.5% used garages/off-street parking lots;
8. Two interrelated findings were that parking locations are “hard to find” for 57% of respondents and that wayfinding signage was “not helpful” for 61% of respondents;
9. There were respondents who indicated that the two-hour parking restriction between 9:00AM and 5:00PM hurts businesses and creates a challenging environment for attracting shoppers to Downtown Troy;
10. A majority (61%) of respondents indicated that the City of Troy should work towards the establishment of residential parking permits;
11. 75% of respondents noted that an increase in parking supply (more parking spaces) would be the best solution for the City of Troy “to improve the overall parking and vehicular circulation in the Downtown; and
12. A majority (84.2%) of respondents indicated that the City would benefit from “maximizing shared-parking policies among businesses with different hours of operation.”

2.4 SURVEY RESULTS

Current Parking

Survey participants were asked a series of questions to ascertain their thoughts, experiences, and perceptions of the current on-street and off-street parking conditions throughout Downtown.

“How well is parking currently working in the Downtown?”

336 of 375 responded

More than half of the participants were “less than satisfied” with the current parking conditions in the Downtown. The most popular rating for the condition of Downtown parking was a 3 out of 10, with a weighted average of 4.25 for all respondents.

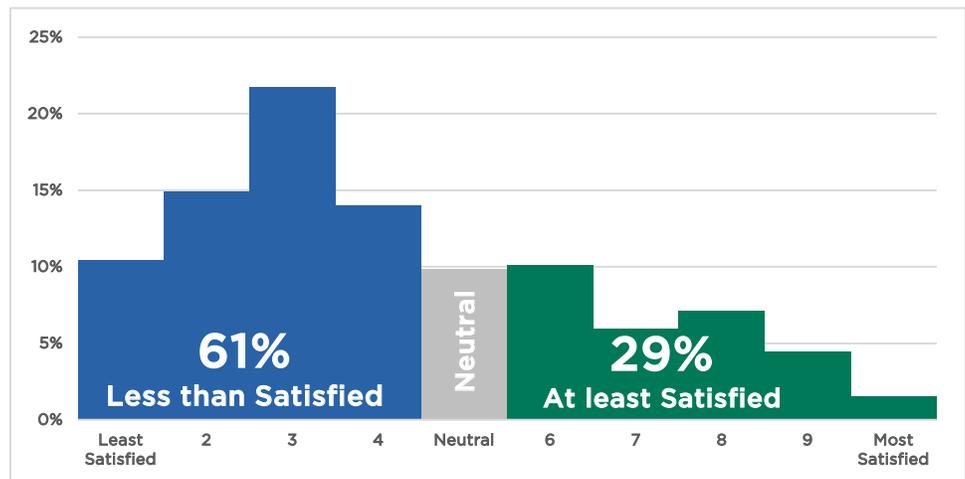


Figure 01: “How well is parking working Downtown?”

“How are current parking conditions affecting the attraction of new business in Downtown?”

298 of 375 responded

Similar to the responses from the previous question, more than half of the participants perceive parking conditions to be at least hurtful in attracting new businesses Downtown. The most popular rating for the effect of current parking conditions on business was 5 (neutral) with 33% of respondents. However, it is notable that a majority of responses were negative (56%) vs. positive (11%). This indicates that the effect parking has on Downtown businesses overall is perceived to be poor.

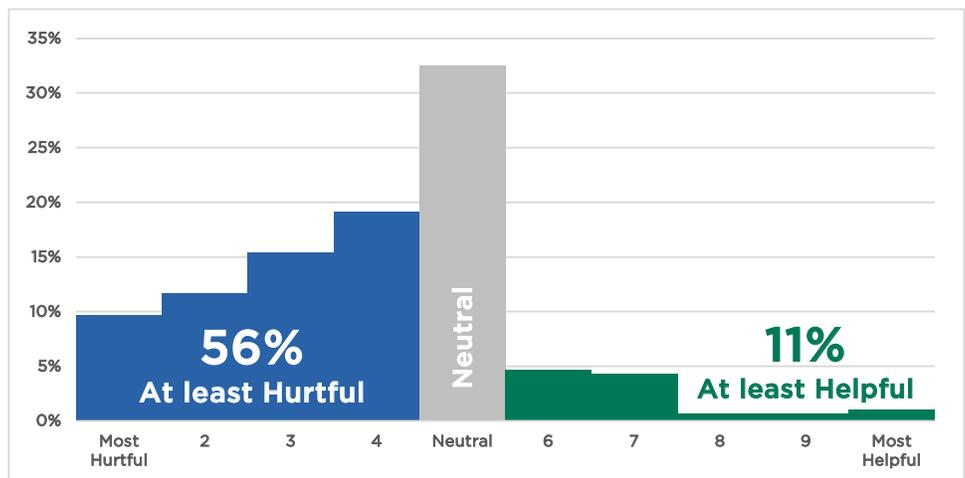


Figure 02: “How are current parking conditions affecting the attraction of new business in Downtown?”

“How is parking enforcement helping to attract visitors to Downtown?”

298 of 375 responded

Approximately 35% of respondents perceive no effect of parking enforcement helping attract visitors. Approximately 60% perceive parking enforcement as decreasing the amount of visitors (negative affect). Survey participants shared the following: strict parking enforcement in Downtown discourages visitors; parking enforcement is patchy, erratic and inconsistent; parking enforcement worries customers and discourages Downtown visits; cost of parking violations start at \$50 and are unjust.

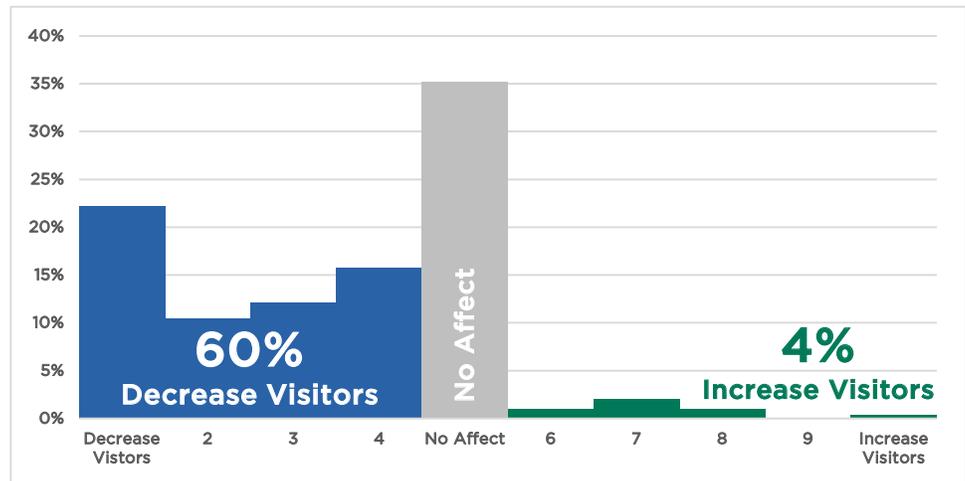


Figure 03: “How is parking enforcement helping to attract visitors to Downtown?”

“Do you normally pay to park in Downtown?”

298 of 375 responded

A majority of respondents (65%) indicated they do not typically pay for parking when frequenting Downtown. The remaining respondents (35%) indicated they pay for parking. While some participants used parking meters and pay stations, a large portion of respondents indicated that they paid for monthly parking permits. Employer-sponsored parking or monthly permits was also referenced as an option for paid parking. Overall, respondents indicated they typically first look for available free parking before having to settle for paid parking, if not using a monthly parking permit.

65%
Don't pay for parking
vs
35%
Pay for parking

“How are you/or your organization affected by parking in the Downtown?”

330 of 375 responded

There were varying themes and perceptions from the respondents for this question; unfortunately, responses did sometimes contradict each other. The most common responses were:

- Difficulty finding parking spots;
- Too many parking restrictions;
- No problems finding parking spaces Downtown;
- Not impacted by current parking conditions; and
- Two-hour parking limitation is inconvenient.

Parking for Employees, Customers, Visitors and Residents

A previous question asked participants to self-identify as either: Resident, Non-Resident, Employee, Business Owner, or Head of Institution. Based on the category identified by the participant, they were directed to a unique set of questions applicable to their status.

“Do you provide parking for your employees and/or customers?”

Of the 375 survey participants, 57 identified themselves as business owners or heads of institutions and were directed to answer whether they provided parking for their employees and/or customers.

59.6%	Neither
17.5%	Employees Only
17.5%	Employees + Customers
5.3%	Customers Only

64.9%	On-street
28.1%	Parking Garage <i>(Off-Street)</i>
24.6%	Surface Lot <i>(Off-Street)</i>
17.5	Other

“Where do your employees park?”

Of the 57 participants (business owners or heads of institutions) directed to this question, 37 responded. Respondents to this question were given the choice to choose all applicable answers (on-street, off-street surface lot, off-street parking garage, other). For the “Other” option, respondents indicated employees park “wherever they can” and in “private lots.”

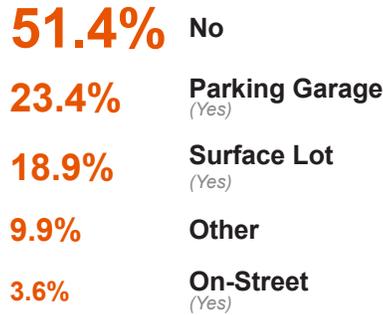
“Where do your customers park?”

Of the 57 participants (business owners or heads of institutions) directed to this question, all responded. Respondents to this question were given the choice to choose all applicable answers (on-street, off-street surface lot, off-street parking garage, other). For the “Other” category, respondents indicated customers park “whatever is available,” “parking garage during non-permit hours,” and “at their discretion.”

87.7%	On-street
21.1%	Parking Garage <i>(Off-Street)</i>
15.8%	Surface Lot <i>(Off-Street)</i>
10.5%	Other

“Is parking provided for your place of employment?”

Survey participants indicating they were Downtown employees were directed to answer this question. Of the 111 respondents that answered this question, more than half (51.4%) reported that parking was not provided for their place of employment. Some participants indicated that they “pay a monthly fee” or use a “parking permit.”



“Where do you primarily park for your home?”

317 of 375 responded

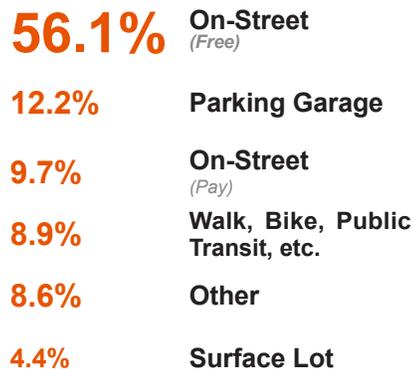


Less than half (43.5%) of the 317 respondents indicated that they use on-street parking for their home, while 34.7% used residential driveways. Surface parking lots and parking garages were utilized by only 9.8% and 10.7%, respectively. There were only four participants that indicated that they “do not own a car.” It is worthwhile to note that only four of 317 respondents (1%) indicated they do not own a car while citywide, approximately 23% of households do not own a car.

“Where do you primarily park when visiting Downtown?”

360 of 375 responded

More than half (56.1%) of the 360 participants responded they use free on-street parking when visiting the Downtown, while only 9.7% indicated that they pay for on-street parking. Parking garages were the second most popular means of parking options for respondents at 12.2%, while surface lots were the least utilized option at 4.4%. Additionally, 8.9% or respondents indicated they access Downtown by bicycle, walking or public transportation instead of a vehicle.



Issues/Concerns/Complaints

Survey participants were asked a series of questions to more directly identify where they experience on-street and off-street parking issues. To provide both quantitative and qualitative survey results, both categorical and open-ended questions were asked. This method helped provide the basis for the study and the path for addressing parking in the Downtown.

“What are the primary parking issues within the Downtown? Or, if you believe there are no parking issues, please explain?”

336 of 375 responded

Overall, 56% of respondents stated they parked on-street when visiting Downtown. Combined with their written responses (below), respondents often have difficulty finding on-street parking. Written responses included several themes:

- Insufficient parking, especially during the weekends;
- Lack of free parking and paid parking is too expensive;
- \$50 parking ticket fines are too expensive;
- Inconsistent parking enforcement;
- Broken parking meters;
- Two-hour parking limit – Inconvenience for residents and employees
- Lack of signage and striping. Leads to confusion.;
- There is no parking issues Downtown; and
- There are plenty of spaces within 5 minutes walking distance.

“In your opinion, which users are occupying most of the parking supply in Downtown?”

284 of 375 responded

Survey participants indicated that employees, customers of local businesses and Downtown residents occupy the majority of Downtown parking supply.

“How do you view parking in the Downtown related to other issues (e.g., housing, vibrant streetscape, shopping choices, special events, traffic congestion, etc.)?”

241 of 375 responded

As an open-ended question, participants often responded to the question by drawing a link between parking and other issues Downtown. According to the 241 respondents, a majority felt that parking is one of the key issues in the Downtown. With parking acknowledged as a key issue, some respondents indicated that parking cannot be addressed in isolation (need to consider housing, streetscapes, etc.). These respondents indicating a relationship often stated that attractiveness of streetscapes, land uses, etc. would be impacted by changes in parking conditions. However, other respondents indicated

there was no connection between various issues. These respondents stated that the primary issue is the parking supply and that addressing the supply should be the focus for accessing and utilizing Downtown. There was also a minority of respondents who indicated that parking is not a problem or primary issue for Downtown and other issues such as safety perception, housing, etc. were more important.

Parking Location/Signage

Knowing that finding available parking is often a primary concern, the following questions all relate to the ability, means, and methods people encounter when searching for parking.

“Are parking areas/locations easy to find?”

288 of 375 responded

Based on the results of the respondents to this question, 57% view that parking is hard to find Downtown. This percentage roughly compares to the 61% of survey respondents who were less than satisfied with how parking is working Downtown.

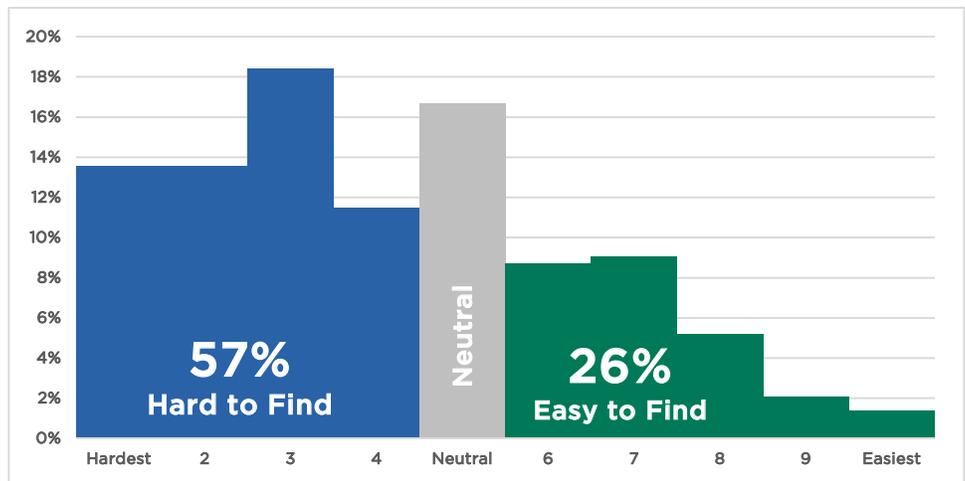


Figure 04: “Are parking areas/locations easy to find?”

“Is signage adequate to identify parking areas?”

281 of 375 responded

Based on participant responses, a majority of respondents (61%) indicated there is a lack of signage in the Downtown that identifies accessible parking options.

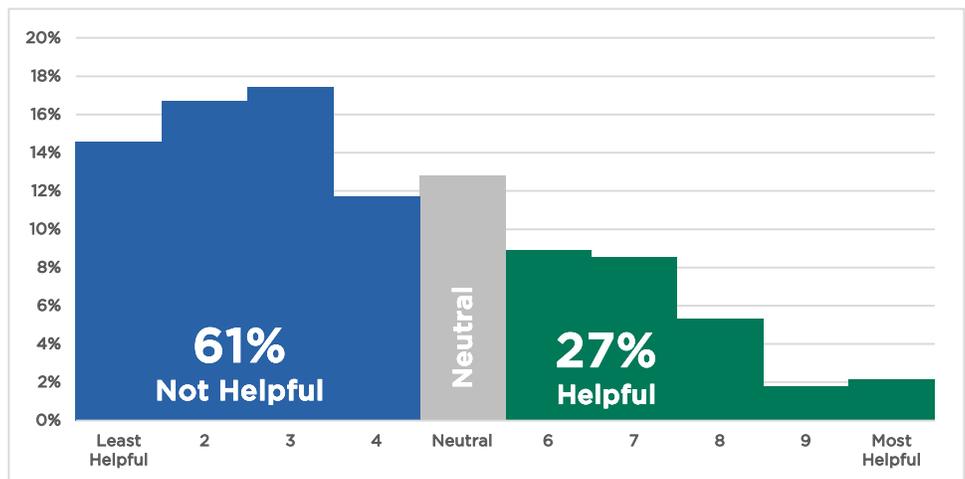


Figure 05: “Is signage adequate to identify parking areas?”

“Are there specific parking issues during the winter months as a result of weather and snow removal?”

215 of 375 responded

Some of the most common responses included the following:

- Snow removal is erratic, incomplete, and/or non-existent;
- Odd/even parking during snow emergencies is confusing;
- Lack of parking options during snow emergencies;
- City should allow residents to utilize parking garages during Snow emergencies; and
- Parking restrictions need to be clearly stated.

“Are there any underutilized or neglected parking structures or parking lots in the Downtown? If so, please list.”

169 of 375 responded

There were 169 responses to this question. The following locations were most commonly identified:

- Fifth Avenue lot;
- Front Street lot;
- Uncle Sam Garage; and
- Garage at corner of State and River Street.

“Do you find one-way streets in the Downtown make it difficult or easier for circulating traffic and parking?”

250 of 375 responded

A common response and recurring theme mentioned was that one-way streets are easier for those that are familiar with the Downtown. However, it was also mentioned that one-way streets can be confusing and difficult to navigate for those who are unfamiliar with the Downtown or for those trying to find parking.

“Are there examples of parking restrictions, time limits, shared parking in the Downtown commercial areas? Are any of the above factors helping or hurting the Downtown regarding congestion or other factors?”

160 of 375 responded

According to the 160 respondents, the example that was mentioned the most was the two-hour parking restriction between 9:00AM and 5:00PM, which most respondents indicated hurts businesses and residents and creates a difficult environment for attracting Downtown shoppers. A few participants indicated shared parking was a good idea and needed further consideration for the Downtown.

Future Parking System

Forecasting the immediate (1-3 year) parking needs and associated accommodation strategies is the primary objective of this study. To help directly guide that study objective, the following contains open-ended questions and specific questions, all addressing potential future parking system options.

“What key values or guiding principles should shape Troy’s Downtown parking system in the future?”

277 of 375 responded

Of those 277 respondents, the most frequent responses included:

- Attractive and safe parking lots;
- More affordable parking options;
- Clear signage to parking garages;
- Better parking management leading to better economic development; and
- Residential parking system/stickers.

“Do you think the City should establish residential parking permits for certain locations/neighborhoods in close proximity of Downtown that are experiencing a shortage of parking?”

250 of 375 responded

Of the 250 respondents to this question, 61% recommended that the city establish residential parking permits. When asked to specify, most participants mentioned that residential parking permits would be best utilized on River Street, 1st, 2nd, 3rd, 4th and 5th Street. Other respondents mentioned that parking permits would be beneficial in the Downtown area, in general.

61%
Yes, Parking Permits
vs
39%
No, Parking Permits

“On-street spaces are a popular parking option that impact adjacent businesses.

How should this scarce resource be managed?”

268 of 375 responded

Respondents to this question were given the choice to choose all applicable answers. A large majority of survey participants, 64%, agreed that providing an increased supply of off-street parking options would help alleviate on-street demand. Several respondents

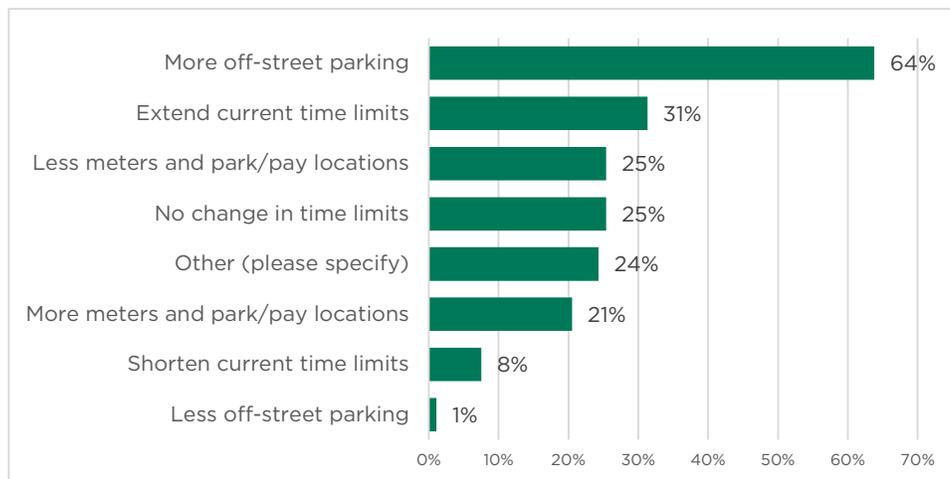


Figure 06: On-Street parking management choices

pointed out that extending the current parking time limit would be beneficial, while only a few said shorter time limits would be helpful. 25% of respondents viewed fewer parking pay stations as an option, while 21% viewed more parking pay stations as an option.

“What policies do you think the City should implement to improve the overall parking and vehicular circulation in the Downtown?”

Respondents to this question were given the choice to choose all applicable answers. Supply of parking spaces was mentioned the most by the respondents and nearly 75% agreed that the increase in the number of spaces would improve overall parking and circulation in the Downtown.

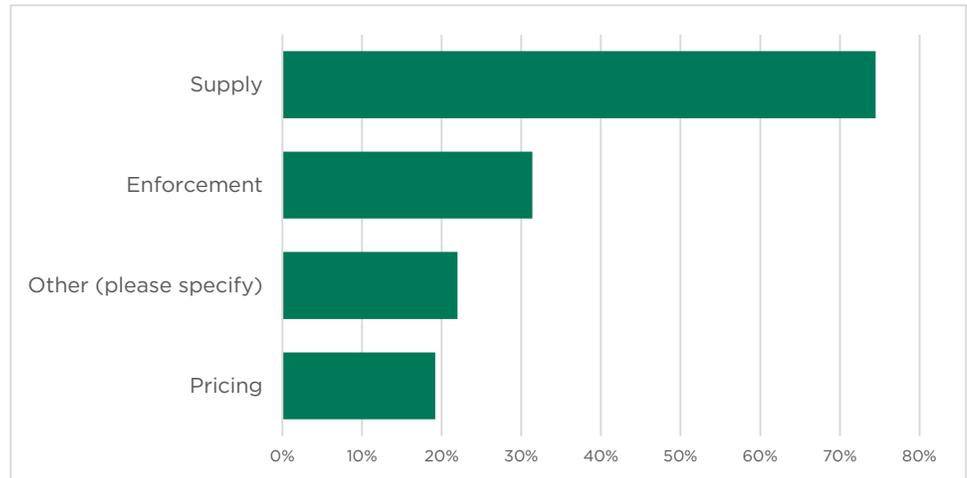


Figure 07: Parking and circulation choices

Responses to the “Other (please specify)” included shared themes of:

- More affordable parking garages;
- Shared parking options;
- Resident permit parking during business hours; and
- Improved signage.

“Are you familiar with shared-parking policies?”

275 of 375 responded

Of the 275 respondents to this question, only 13.8% of them were aware of shared parking policies. These 38 out of 275 respondents were then directed to the next two questions.

“Do you think the Downtown could benefit from maximizing shared-parking policies among businesses with different hours of operation?”

84.2% Yes
10.5% No
5.3% Other (Please Specify)

Of the 38 respondents aware of shared parking policies, 84.2% felt that Downtown would benefit from shared-parking policies. Only 10.5% felt that these policies would not be beneficial. The responses for the “Other (please specify)” included removing automotive traffic entirely, and one who felt that it would benefit, but not in a meaningful way.

“Are you aware of parking management policies that optimize parking utilization such as parking pricing policies?”

275 of 375 responded

Of the 275 respondents to this question, only 20% of them were aware of parking management policies. These 55 out of 275 respondents were then directed to the next question.

“What policies do you think would be effective for Downtown or what examples of parking management policies have you found successful in other communities?”

Of the 55 respondents aware of parking management policies, 35 responded to this question. Responses and themes included:

- Free/affordable parking options;
- Innovative parking solutions;
- Shared parking policies;
- Peak/off peak pricing;
- Requiring rental units to have parking;
- Increase supply;
- Expand transportation options;
- More flexible meters;
- Improved enforcement; and
- Lined spaces.

“Are there unique parking issues during a specific time of the day (Alternating sides of street for parking due to street cleaning, etc.)?”

215 of 375 responded

Responses and themes of issues included:

- Alternate side parking restrictions to allow for street cleaning that doesn't happen;
- Congestion from Summer Market, Troy Night Out, and Flag day;
- Congestion from Music Hall and around Russell Sage;
- Two-hour parking limitations;
- Strict parking lot regulations and congestion during business hours; and
- People not moving their vehicles when parking alternates.

“What steps are needed to maintain/build public support for the Downtown parking system?”

149 of 375 responded

Several respondents indicated that public outreach and input opportunities are a good step in achieving public support for a more enhanced Downtown parking system. Other similar responses included:

- Public education and marketing;
- Seek public input and feedback;
- Implementation plan that includes all stakeholders;
- Signage and clear communication;
- Modern technologies (e.g. electronic parking pay stations, shared parking, etc.);
- Clear rules and regulations;
- Consistent enforcement; and
- Promote alternative modes.

“Is there any topic not addressed in this survey that is important for the Downtown Parking Study and needs to be?”

114 of 375 responded

While most of the responses varied, other topics that participants indicated:

- Bike and pedestrian friendly improvements;
- Better public and mass transportation;
- Streetscape and infrastructure improvements;
- Summer Market impacts on adjacent streets and neighborhoods;
- Parking passes for businesses and residents;
- Car sharing programs;
- Safety improvements (infrastructure and patrol);
- Green infrastructure; and
- Shuttles or trolleys to and from park-and-ride locations.

3.0 EXISTING CONDITIONS ASSESSMENT

Examination and inventory of physical conditions took place in May 2015 (locations of parking, types of signage, regulations, etc.). This examination guided the development of the public survey (see previous section). The survey was available to the public during the month of June 2015. Parking utilization counts were conducted during the end of July and beginning of August. Detail for each of these existing conditions is described below.

3.1 KEY FINDINGS

From the existing conditions assessment, there are approximately 5,874 spaces present in the study area. Key findings regarding this inventory and their usage include:

- There are 1,620 on-street parking spaces, representing 28% of the supply;
- 174 of the 1,620 on-street parking spaces are metered, serviced by a pay-and-display meter/station;
- There are 4,254 off-street parking spaces, representing 72% of the supply;
- There are seven (7) city-owned parking garages/lots in the City of Troy. All require an annual permit; anyone (resident or non-resident) can apply to obtain a permit;
- Mass transit – bus infrastructure is limited, but the City is working with the CDTA to construct a transit center at the corner of 4th Street and Fulton Street;
- Bicycling infrastructure is limited – there are no dedicated bike lanes, shared bike lanes, bike boxes, cycle tracks, and there is limited bike parking/storage; and
- Troy is inherently walkable/pedestrian friendly with an easy to navigate street grid, wide sidewalks, street trees, and clearly delineated and accessible crosswalks.

3.2 INFRASTRUCTURE

Parking Locations (on-street and off-street)

Map 02 shows the location of parking infrastructure across Downtown Troy. On-street surface parking infrastructure in Downtown Troy exists on most sides of the street. A few exceptions exist across Downtown, including portions of Congress Street, Ferry Street, and Federal Street. These exceptions are due to the lack of available space for parking on both sides of the street. Off-street surface parking is fairly well distributed throughout the Downtown. Structured (garage) parking infrastructure only exists in a few locations in Downtown: City of Troy State Street Garage, City of Troy Fifth Avenue Garage, and Uncle Sam Garage. More detail on the types, regulations, rates, and management of parking locations is described in several sections to follow.

Parking Signage

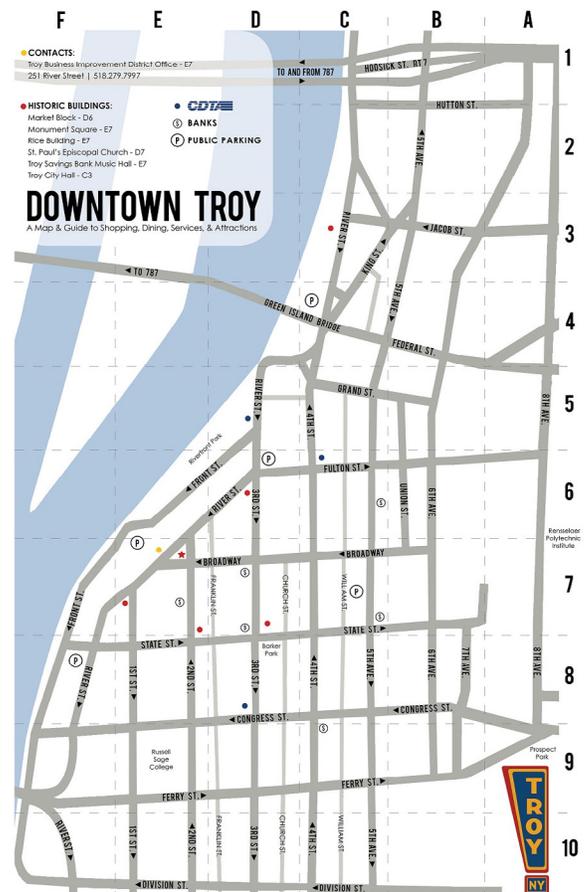
Signage in Downtown Troy consists of wayfinding/information, destination, and regulatory signage. Overall, Downtown Troy consists of primarily regulatory signage. The following describes each of these types of signage.

Wayfinding/Information Signs

In general, motorist wayfinding signage exists on some of the major roads leading to the City of Troy and/or to Downtown Troy. This signage only directs motorists to the City and Downtown. It does not direct motorists to parking facilities. Parking facility wayfinding signage in Downtown Troy consists of the image to the right. The sign includes a street map of Downtown Troy with historical buildings, bus stops, banks, and some (not all) parking facilities.

An accompanying sign located below this map (seen on page 26) indicates the location of: Shops, Art Galleries, Dining, Bars, and Taverns, Beauty, Health and Wellness, Banks, Florists, Lodging, Services, Government, and Attractions.

These maps are about 4-5 feet in height and are located on sidewalks in a few locations throughout Downtown. The signs most typically resemble the “You are Here” signs that are used in city neighborhoods and shopping malls. Thus, their information, size and location make them more practical as wayfinding/information signs for pedestrians, and not for motorists searching for parking. The map is, however, located



MAP 02 | Parking Infrastructure
On- and Off-Street Locations

-  On-Street
-  Parking Garage
-  Parking Lot
-  Study Area
-  Monument Square Quarter-Mile
-  Property Lines



SHOPPING:

- Amazing.NE.T Video Shop 516 River St. -- C1
- Anchor No. 5 Boutique 288 River St. -- D6
- Annick Designs 269 River St. --E6
- Antiques Warehouse 78 Fourth St. -- C7
- Apollo's Den 95 Fourth St. -- C8
- ArtCentric Gallery 266 River St. --E6
- Aurora's Boutique 286 River St. --D6
- Aquilonia Comics and Cards 412 Fulton St. --C6
- Blue Bird Home Décor 29 Third St. --D6
- Big Dons Deals 45 Third St. --D8
- The Book Outlet The Atrium at Third Street--C7
- Boost Mobile 20 Fourth St. --C5
- The Botanic Studio 282A River St. --D6
- Broadway News 207 Broadway--E7
- The Broken Mold Studio 284 River St. --D6
- Capital City Cash 40 Third St. --D7
- The Counties of Ireland 77 Third St. --D8
- Country Charm Antiques 188 River St. --F8
- CVS The Atrium at Third Street--D6
- Dang! That's Chery 111 Third St. --D6
- Ekologic 1 Fulton St. --D6
- Flower Girl Closet 265 River St. --D6
- Foam Brain Games 71 Fourth St. --C7
- Fourth Street Market 100 Fourth St. --C8
- Fulton Mini Mart 471 Fulton St. --C6
- Henry Loves Betty Pet Boutique 195 River St. --F7
- Hippies, Witches, & Gypsies 212 River St. --F7
- J.K. Bloom Jewelers 21 Third St. --D6
- King Venetian Blind & Drapery 400 River St. --C3
- MarEle Boutique Accessories 427 River St. --C3
- Market Block Books 290 River St. --D6
- Maurice's Grill, Deli & Grocery 88 Third St. --D8
- Metro PCS 343 Broadway--C7
- Midtown Market 92 Third St. --D8
- Modern on the Hudson 2 Third St. --D6
- Naturally Grown 282B River St. --D6
- Nite Owl News 400 Fulton St. --C6
- No Holdz Barz 90 Third St. --D8
- Pastime Legends Video Games 73 Fourth St. --C7
- Pfeil Hardware 43 Third St. --D8
- Olimpia Grocery & Deli 95 Congress --D8
- Playing on the Furniture 272 River St. --E6
- River Rocks Jewelry & Bead Shop 209-211 River St. --F7
- River Street Beat Shop 197 River St. --F7
- Romanation Jewelers 48 Third St. --D7
- Segel Violins and Art Gallery 44 Third St. --D7
- The Shoppe 260 Broadway--D7
- Some Girls Boutique 225 River St. --E7
- Spirits of Troy 124 Ferry St. --D9
- Stewart's 127 Congress St. --C8

- Swinehundt Designs 182 River St. --F8
- T & J Handcrafted Soap Shop 271 River St. --E6
- Third Street Potters 3 Third St. --D6
- Trojan Horse Antiques 2 Third St. --D6
- Troy Cloth & Paper 291 River St. --D6
- Troy Discount Beauty Supplies 86 Third St. --D8
- Troy Light Company 85 Congress St. --D8
- Troy Vision Center 42 Third St. --D7
- Truly Rhe 3 Broadway--E7
- Twilight Vintage Clothing 44 Fourth St. --C6
- Uncle Sam's Good Nutrition 77 Fourth St. --C7
- Urban Bazaar 50 Third St. --D7
- Weathered Wood 13 Second St. --E7

ART GALLERIES:

- The Arts Center of the Capital Region 265 River St. --E6
- Clement Art Gallery and Framing 201 Broadway--E7
- Fulton Street Gallery 408 Fulton--C6
- Martinez Gallery 5 Broadway--E7
- The Photography Center 404 River St. --C3
- Way Back Gallery 169 River St. --F8

DINING, BARS, AND TAVERNS:

- Bacchus wood Fired Pizza 33 Second St. --E7
- Beirut Restaurant 184 River St. --F8
- Bootlegger's On Broadway 200 Broadway--E7
- Bradley's Tavern 28 Fourth St. --C5
- B-Rad's Bistro and Catering 1809 Fifth Ave. --C6
- The Broadway Café 359 Broadway--D7
- The Brown Bag 156 Fourth St. --C9
- Brown's Brewing Co. 417-419 River St. --C3
- Brown's Malt Room 425 River St. --C3
- Bruegger's Bagels 55 Congress St. --D8
- Café Delicious 413 River St. --C3
- The Daily Grind 46 Third St. --D7
- Dante's Frozen Yogurt and Toppings 274 River St. --E6
- Dinosaur Bar-B-Que 377 River St. --D4
- Dunkin' Donuts 65 Congress St. --D8
- Enchante Whole Leaf Teas 169 River St. --F8
- Famous Lunch 111 Congress St. --C8
- Finnbar's Pub 452 Broadway--C7
- First Choice Caribbean 451 Fulton St. --C6
- The Flying Chicken 120 Fourth St. --C8
- Footsy Magoo's 17 First St. --E8
- Gino's Pizzeria 123 Fourth St. --C8
- The Greek House 27 Third St. --D6
- The Grocery 211 Broadway--E7
- Hao Wei 148 Fourth St. --C9
- Illum Café 11 Second St. --E7
- I Love Pizzeria of Troy 125 Fourth St. --C8
- Japanica Grill 1521 Sixth Ave. --B9

- Jimmy's Lunch 84 Congress St. --D8
- Jose Malones's Restaurant 405 River St. --C3
- Kokopellis Club 124 Fourth St. --C8
- La Porta Ristorante.Caffè 85 Fourth St. --C7
- Lucas Confectionery & Wine Bar 12 Second St. --E7
- Manory's Restaurant 99 Congress St. --C8
- Miele's Café the Atrium at Third Street--D6
- Muddaddy Flats Quesadillary 409 Fulton St. --C6
- O'Brien's Public House at the Trojan Hotel 43 Third St. --D7
- The Placid Baker 250 Broadway--D7
- Plum Dandy Frozen Yogurt & Toppings 1521 Sixth Ave. --B9
- Rare Form Brewery 90 Congress St. --D9
- RBC Jazz Club 46 Fourth St. --C6
- River Street Café 429 River St. --C3
- River Street Pub 194 River St. --F8
- The Ruck 104 Third St. --D9
- Ryan's Wake Pub 403 River St. --C3
- Shalimar Restaurant 405 Fulton St. --C6
- Spill'n the Beans Coffeehouse and Bistro 13 Third St. --D6
- Subway 200 Broadway--E7
- Subway 1521 Sixth Ave. --B9
- Sushi King 200 Broadway--E7
- Sweet Sues 203 River St. --F7
- Tal Lounge 121 Fourth St. --C8
- The Whistling Kettle Tea Room 254 Broadway--D7
- X's to O's Vegan Bakery 97 Fourth St. --C7

BEAUTY, HEALTH, AND WELLNESS:

- The Art of Reiki 251 River St. --E7
- Beaches Sabre Club 73 Fourth St. --C7
- Blendingtons Barber Shop 32 Fourth St. --C5
- Broadway Beauty Salon 108 Fourth St. --C8
- Candy's Style Suite 353 Broadway--D7
- Community Massage 255 River St. --E6
- Desire 4 Style 115 Fourth St. --C8
- Diva Nails 353 Broadway--D7
- Esprit Salon 160 River St. --F8
- Everlasting Nails 401 Fourth St. --C6
- Faith & Beauty Salon 186 River St. --F8
- Heartspace Yoga & Healing Arts 12 Second St. --E7
- Indigo Herbal Hair Spa 60 Second St. --E8
- Jen's Barber Shop 91 Fourth St. --C7
- Medical Plaza 500 Federal St. --C4
- Planned Parenthood 200 Broadway--E7
- Platinum Ink Tattoos 459 Fulton St. --C6
- Rishka's on Broadway 454 Broadway--C6
- She's Beautiful Hair & Design 29 State St. --D7
- Stella's Tailor Shop 29 State St. --D7
- Styles Upon Styles 80 Congress St. --D8
- Supercuts 1521 Sixth Ave. --B9
- Tammie's Hair Design 410 Fulton St. --C6

- Tony of Italy 117 Fourth St. --C8
- Troy Dance Factory 291 River St. --E7
- Underground Athletics and Massage 251 River St. --E7
- Upstate Physician Services 2001 Fifth Ave. --B4
- Valentina's Hair Salon 118 Fourth St. --C8
- White Sands Massage Spa 453 Broadway--C7

BANKS:

- Bank of America 57 Third St. --D7
- Citizen's Bank 1818 Fifth Ave. --C6
- First Niagara 33 Third St. --D7
- Key Bank 130 Fourth St. --C9
- Pioneer Savings Bank 19-23 Second St. --E7
- Trustco Bank 1700 Fifth Ave. --C7

FLORISTS:

- Fleur de Lis 15 Second St. --E7
- Flower World 83 Third St. --D8
- Flowers by Pasha 177 River St. --F8

LODGING:

- Best Western Franklin Square Inn 1 Fourth St. --C5

SERVICES:

- Birkmeyer Travel 1520 Sixth Ave. --B9
- Black and White Taxi 415 Fulton St. --C6
- EcoBaby Daycare 75 Fourth St. --C7
- Firestone Complete Auto Care 124 Congress St. --C9
- First Class Laundries 102 Fourth St. --C8
- Hill's Stationery Shop 451 Broadway--C7
- Mavis Discount Tire 1540 Fifth Ave. --C9
- McKay Family Automotive 1626 Fifth Ave. --C8
- Tech Valley Center of Gravity 35 Fulton St. --D6
- Troy Music Academy 9 Third St. --D6
- Troy Typewriter and Supply Co. 426 River St. --C3
- Troy Quick Shoe Repairing Co. 81 Third St. --D8
- Uncle Sam's Lanes 600 Fulton St. --B6

GOVERNMENT:

- Troy City Hall 433 River St. --C2
- Troy Police Station 55 State St. --C7
- US Post Office 400 Broadway--D7

ATTRACTIONS:

- Captain JP Cruise Lines 278 River St. --F8
- Franklin Plaza 4 Fourth St. --C5
- Rensselaer County Historical Society 57 Second St. --E8
- Revolution Hall 417 River St. --C3
- St. Paul's Episcopal Church 58 Third St. --D7
- Troy Savings Bank Music Hall 30 Second St. --E7

online at the Troy Business Improvement District website. Residents and visitors have the option to view this map and plan their trip prior to coming to Downtown Troy.

No other parking facility wayfinding signage exists in Downtown. The standard white and blue parking signs with arrows that indicate the direction to public parking facilities is not present Downtown.

Destination Signs

The destination signage found in Downtown is used to indicate the location of a parking garage or lot. Publicly owned parking areas typically have some level of indication of restrictions (permits and rates). Most of the parking areas owned by the City do not have standard parking signs. Instead, they have signs with a green background with gold lettering. These signs indicate level of permitting and hours of restrictions.

A special type of destination signage is the Troy Park and Shop District sign. These signs are located on 3rd Street and 4th Street between Broadway and State Street, and along State Street between 3rd and 4th Streets. They are used in conjunction with other regulatory signage, or to replace regulatory signage. Troy Park and Shop District signs indicate two-hour parking limits Monday through Friday. It is not clear if there are any differences in enforcement between Troy Park and Shop Districts and other on-street parking areas that have a two-hour time limit.

No other parking facility destination signs exist in Downtown. The standard white and blue parking signs that indicate you have arrived to a public parking facility do not exist.

Regulatory Signs

Regulatory signage includes no parking times, time-limits, pay-to-park, and use-restrictions (accessible/handicap parking, etc.). As mentioned, specific regulatory signage exists for parking lots, garages, and the Troy Park and Shop District. Typically, regulatory signage is posted in multiple locations on each side of the street along individual blocks, and is located on both free standing signs as well as fixed to other infrastructure such as street lights. A detailed examination of the on- and off-street parking regulations in Downtown Troy can be found in section 3.5 (Parking Regulations).

Other than regulatory signage and the map indicating the location of parking areas and attractions, no other parking-related signage is posted within the study area. This includes the lack of directional or wayfinding signage that directs drivers from gateway entrances into the City (e.g., from the Ferry Street Bridge), standard signage indicating the presence of parking facilities, or electronic signage located at the entrances of parking facilities that indicate parking availability.

Parking Striping

Map 03 shows the areas where striping has been applied for on-street parking spaces within the study area. A majority of blocks with on-street parking are not striped to indicate location of parking spaces. Areas with striping generally share the common characteristic of striping being completed in conjunction with other roadway improvements. For example, blocks with on-street parking striping also include bump-outs, streetscape enhancements, ADA accessible crosswalks, and/or pay and display meter station.

MAP 03 | Parking Infrastructure
On-Street Striping

- Fully Striped Space
- Partial Striped Space
- · - · Study Area
- - - - Monument Square Quarter-Mile
- ▭ Property Lines



Parking Pay Stations

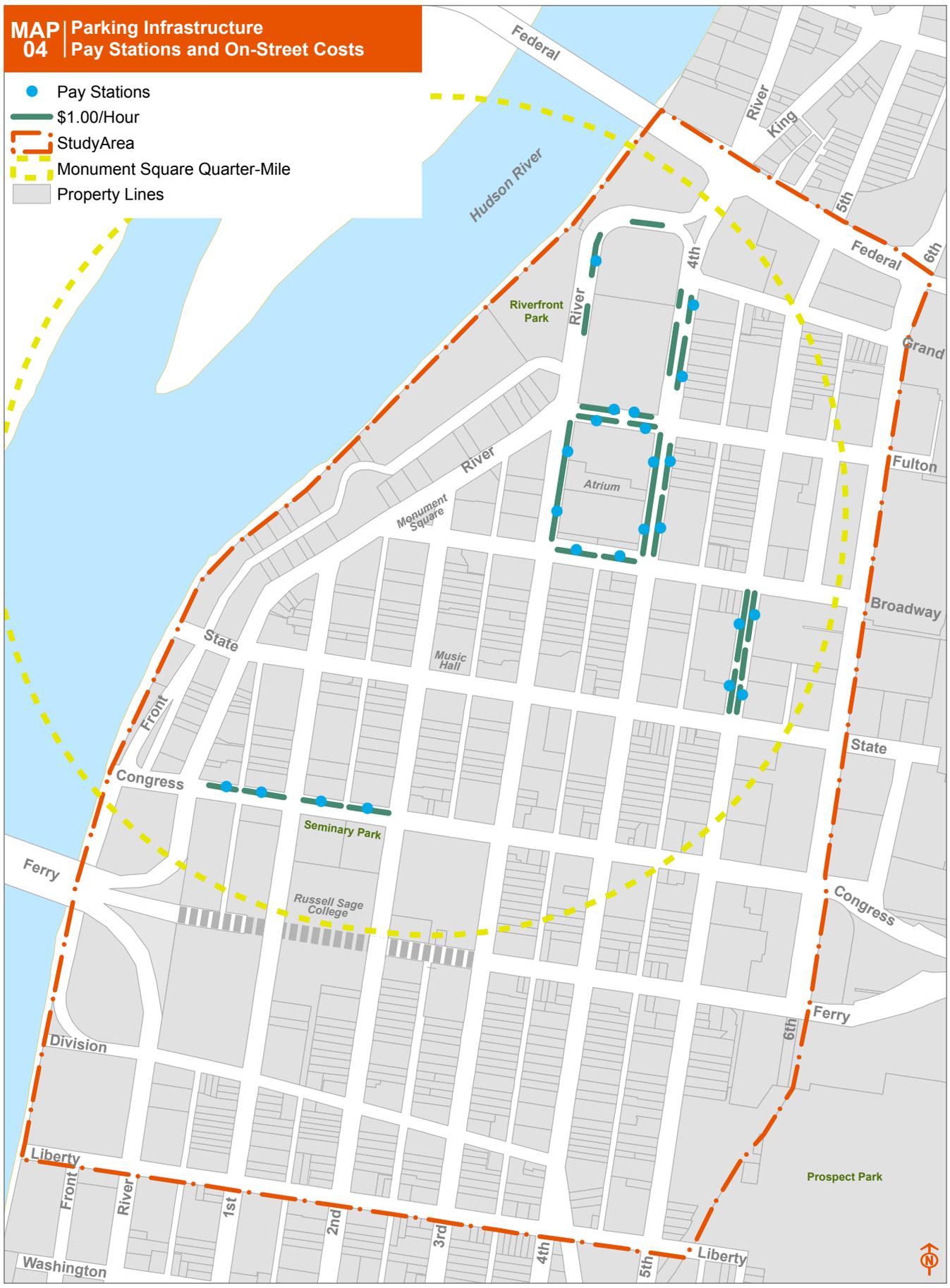
The City of Troy utilizes the MP104 Compact Pay and Display Meter stations from Cale Parking Systems in certain areas Downtown. The meters accept coins, cash and credit/debit/smart cards. Users pay for parking by the hour and display a printed receipt on the dashboard of their vehicle.

As of July 2015, the City of Troy had installed 44 pay stations throughout the City, with 23 located within the boundaries of the study area. Additionally, the City has indicated that it has 11 pay stations that have not yet been installed. Map 04 shows the locations of pay stations that had been installed as of July 2015.

Public input from the parking survey indicates that some parking pay stations do not operate properly. Operational issues range from low battery, empty paper cartridges, communication issues, and other types of hardware failure.

MAP 04 | Parking Infrastructure
Pay Stations and On-Street Costs

- Pay Stations
- \$1.00/Hour
- - - Study Area
- - - Monument Square Quarter-Mile
- ▭ Property Lines



3.3 TRANSPORTATION SYSTEM

Street Network

Map 05 shows the network and circulation pattern for Downtown Troy. The area is characterized by a classically structured street grid with alternating directions of travel for primary streets/avenues and alleys. This grid mostly consists of one-way travel for a majority of the north-south and east-west alignments. The only primary streets that allow for two-way traffic include: 6th Avenue, Front Street, and River Street south of Division. Street widths found in Downtown allow one-way streets to accommodate parking on both sides, whereas two-way streets might only be able to accommodate parking on one side.

Alleys are aligned between many of the north-south streets. As a unique and beneficial part of the Downtown Troy grid system, these alleys provide entrances to many private surface lots, garages, driveways, and carriage houses. Access to these usually unattainable sections of a city provides the ability of greater parking options and secondary circulation.

MAP 05 | Downtown Street Network
And Circulation Pattern

-  Study Area
-  Monument Square Quarter-Mile
-  Property Lines



Traffic Volumes

Map 06 shows the Annual Average Daily Traffic (AADT) volumes. The overall layout of Downtown in a grid, and the presence of the one-way streets, has an influence on traffic patterns. Traffic count information comes from the New York State Department of Transportation (NYSDOT). Volumes indicate the highest traveled road as 4th Street. Once 4th Street intersects with Congress and Ferry Streets, volumes disperse. These three streets represent the most traveled roads within the study area. These volumes correspond with the connections to the larger network within the City and surrounding municipalities.

Access Barriers

There are a couple of access barriers/limitations located within Downtown Troy. These barriers influence both transportation and pedestrian patterns within and between Downtown and adjacent areas. Therefore, barriers can limit the opportunities for people to park and walk to destinations in some areas of the city. The Ferry Street on- and off-ramps interrupt the street grid network and disrupt visual connections both north-south and east-west for vehicles and pedestrians. Federal Street, at the northern boundary of Downtown, is a 5-lane road that becomes the Green Island Bridge west of River Street. The intersections of Federal Street with River Street and 6th Avenue have up to five (5) lanes which makes crossing potentially difficult for pedestrians. Work has been done recently to accommodate pedestrians and help alleviate safety concerns. These pedestrian amenities are a great move forward for encouraging safe pedestrian travel among a busy main artery.

Pedestrian Environment

The City of Troy has a traditional grid layout of its streets and development. Virtually everything located in the study area can be reached within a five-minute walk (0.25-mile) or less. Many sidewalks provide ample width to encourage pedestrians, accommodate recreation, promote sidewalk retail, encourage impromptu street gatherings, and act as a buffer to traffic. Mature street trees provide traditional aesthetics, noise reduction, wind dampening, shade, and storm water retention. Crosswalks are clearly delineated with striping, signage, and contain ADA accessibility (truncated domes at curb-cuts).

Bicycle Network/Amenities

Downtown Troy does not have dedicated bicycling lanes (bike lanes), shared bike lanes (sharrows), bicycling boxes (bike box), bicycle tracks (cycle tracks), or a bikeshare program. Downtown Troy has limited public bicycle parking/storage. Just north of Downtown Troy is one end of the Uncle Sam Bikeway. Extending to Lansingburgh, the Uncle Sam Bikeway is a 3.5-mile recreational path built atop a former rail corridor (rails-to-trails).

Major Connections

Troy is served by I-787, with connections to I-87 (the Northway) for points north and south, and I-90 (the Thruway) for points east and west. Six (6) bridges span the Hudson River connecting Troy to neighboring communities:

- Troy-Menands Bridge
- Ferry Street Bridge (from Watervliet)
- Green Island Bridge (from Green Island)
- Collar City Bridge (from Colonie),
- 112th Street Bridge
- Broad Street Bridge

The study area for this report included two (2) of these bridges: the Ferry Street Bridge to the south and the Green Island Bridge to the north.

Carshare

Although popularity in other urban areas has been increasing, Downtown Troy does not have, nor does it participate in, a carshare program.

Mass Transit

The Capital District Transit Authority (CDTA) has several bus lines that provide service to Troy including: Express (yellow), Trunk (blue), Northway Xpress (orange), and Neighborhood (green) lines over a variety of peak, off-peak, and day options. The CDTA, working with the owner of the Uncle Sam Parking Garage, recently approved the construction of \$4,000,000 transit center at the corner of the 4th Street and Fulton Street, where eleven (11) bus routes currently converge. The transit center is predicted to be utilized by approximately 4,000 people-per-day (over 1,000,000 annually).

Downtown Troy is not serviced by a light-rail system, a bus-rapid-transit system, a street-car system, or a subway system. The Albany-Rensselaer (ALB) Rail Station (Amtrak) is located approximately 9 miles south of Downtown Troy in Rensselaer, New York. In addition to heavy passenger rail, users can find transfers to intercity coach bus lines. The Albany International Airport (ALB) is located approximately 6 miles due west of Downtown Troy in Colonie, New York.

3.4 PARKING SUPPLY

The following parking supply inventory is based on collected data, field visits, aerial imagery, and online street imagery. Field data and observations were completed in May, July, and August 2015. This inventory includes all on-street and off-street parking spaces, but excludes private driveways.



5,874
Total Parking Spaces

Origin/Destination

The City of Troy has a wonderful, intact, walkable street grid – the type of street grid that planners have been trying to replicate in countless Traditional Neighborhood Developments that sprang to life across the United States here in the early stages of the 21st century. What is oft-replicated, is rarely executed well and Troy already has the built environment in place to succeed in attracting visitors, new businesses, and new residents.

Virtually everything located in the study area can be reached within a five-minute walk (0.25-mile). Nonetheless, research, field surveys, and the feedback received from the questionnaire completed by residents and other stakeholders clearly indicated that pressure to the existing parking supply was felt at times, and in particular at a few Troy “hotspots” during peak hours and special events. These are outlined briefly below, with existing parking options for each discussed. Major destinations are shown graphically in Map 07.

MAP 07 | Major Downtown Destinations

- 1** Monument Square
 - 2** Riverfront Park
 - 3** Atrium
 - 4** Farmers Market (Summer)
 - 5** Troy Savings Bank Music Hall
 - 6** Russell Sage College
-  Study Area
 Monument Square Quarter-Mile
 Property Lines



Downtown Business and Residential

Downtown Troy includes a mixture of retail, restaurant, residential, and nightlife destinations that attract visitors and encourage pedestrian activity. While many of these destinations provide the reason and activity for Troy Night Out, these establishments attract visitors and encourage pedestrian activity every night. Retail establishments include many local shops ranging from antique shops, book stores, restaurants, and bars. Downtown also includes many long-time residences and new residents enjoying redeveloped historic buildings.

Monument Square

Monument Square is, in many respects, the heart of Downtown Troy. The centerpiece of Monument Square is the Neo-Grec style Soldiers and Sailors Monument. Built in 1890, this monument has a 93-foot granite base and column, topped with a 17-foot bronze statue of the Goddess Columbia. Monument Square is situated at the intersection of Broadway Street, River Street, and 2nd Street. City Hall was formerly located adjacent to the Square, but was demolished (along with the abutting parking garage) to spur redevelopment, linking the Hudson River to Downtown and serving as a distinctive gateway to Riverfront Park. Parking for visitors to the monument is available exclusively on-street.

Riverfront Park

Riverfront Park is a publicly-owned waterfront park located directly off River Street. The park plays host to a whole range of community programming initiatives. Off-street parking is provided adjacent to the park along Front Street. The two (2) nearest parking garages are the privately-owned garage at the corner of River Street and Fulton Street and a publicly-owned garage near the intersection of Broadway Street and 5th Avenue. On-street parking is available on Front Street and surrounding streets.

Russell Sage College

Russell Sage College is a private college for women, and is located in Downtown Troy. The school includes approximately 1,000 combined graduate and undergraduate students. It is ranked in the top tier of National Liberal Arts Colleges by U.S. News and World Report. The college academic year includes fall, spring and summer semesters. Generally, fall semester is from end of August until mid-December, spring semester is from mid-January to mid-May and summer semester is from mid-May to mid-August. The college is roughly bounded by Congress Street to the north, 2nd Street to the east, Division Street to the south, and River Street/1st Street Alley to the west. In addition to the principal boundaries of the campus, there is also a number of dedicated surface parking lots for school faculty, staff, and students within the campus and immediately adjacent to the north, south, and east.

Rensselaer County Supreme Court and Troy Public Library

The Rensselaer County Courthouse (and its abutting annex) is located at the corner of Congress Street and Second Street. The circa 1894 courthouse building is in the Classical Revival architectural style. The building is located within the Central Troy Historic District and is listed on the National and New York State Registers of Historic Places. A dedicated employee permit only parking lot is located to its rear. For additional parking, a former alley has been converted to employee permit only. Visitors to the Courthouse are required to park on-street.

The circa 1897 Troy Public Library is located adjacent to the Rensselaer County Courthouse and is in the Italian Renaissance architectural style. The building is located within the Central Troy Historic District and is listed on the National and New York State Registers of Historic Places. Similar to the County Courthouse, a dedicated employee permit only parking lot is located to its rear with a converted alley for additional parking. Visitors to the Library are required to park on-street.

Troy Savings Bank Music Hall

The circa 1870 Troy Savings Bank Music Hall is located at the corner of 2nd and State Streets and is in the Second Empire architecture style. The building is located within the Central Troy Historic District, is listed on the National and New York State Registers of Historic Places, and is designated a National Historic Landmark. The Troy Savings Bank Music Hall is still utilized as a bank (First Niagara Bank), but also serves as a popular destination for music artists. The building has dedicated parking directly across State Street that is available to First Niagara Bank customers. There are two (2) public parking garages within a four (4) block radius of the Troy Savings Bank Music Hall.

Troy Atrium and US Post Office

The Troy Atrium is located at 4 3rd Street and the building's footprint takes up the entire width of a city block with Broadway Street fronting its entire south elevation. The building serves as the location of the Troy Waterfront Farmers Market's winter home. The U.S. Post Office in Downtown Troy faces the Troy Atrium at the corner of Broadway Street and Fourth Street. The circa 1934 Classical Revival building is located within the Central Troy Historic District and is listed on the National and New York State Registers of Historic Places. An off-street surface parking lot for post office customers can be accessed via 4th Street or William Street. A privately-owned parking garage is connected to the Troy Atrium via a skywalk that spans Fulton Street. A publicly-owned parking garage is located a block away on 5th Avenue.

Rensselaer Polytechnic Institute (RPI)

RPI is a private research university located immediately to the east of Downtown Troy. While not located within the study area, the size, proximity, and impact on Downtown parking necessitated its inclusion in this section. The university consists of approximately 7,000 combined graduate and undergraduate students and 450 academic staff. While not a part of the formal campus, a number of off-campus housing facilities and commercial/retail uses that service the student population are located within Downtown in the Ferry and Congress Corridor. This includes one recent development known as City Station. Similar to Russell Sage College, RPI's academic year includes fall, spring and summer semesters.

Troy City Court/Troy Police Department

The main Troy Police Department and the Troy City Court are co-located in a circa 1925 three-story Colonial Revival building at 51-55 State Street. The Troy City Court handles criminal, traffic, and civil cases. The Troy Police Department is a fully accredited New York State law enforcement agency that serves the approximately 50,000 residents who call the City of Troy home. The Troy Police Department is comprised of 130 police officers and 13 full-time civilian personnel. In addition, the Troy Police Department provides 18 part-time school crossing guards.

Special Events

Troy Waterfront Farmers Market (Summer/Winter)

The Troy Waterfront Farmers Market is an incredibly popular Downtown event/activity. The Summer Market occurs May through October every Saturday between 9:00AM and 2:00PM. It is located in and around Monument Square, bounded by 3rd Street and State Street. During the Summer Market, portions of River, Broadway, 1st and 2nd Streets are closed to accommodate vendors and visitors. The Winter Market occurs November through April every Saturday between 9:00AM and 2:00PM; the location, however, shifts inside to the Troy Atrium. Overall, the Troy Waterfront Farmers Market consists of over 80 vendors that include food growers, bakers, chefs and other artisans. The Market attracts thousands of visitors each Saturday from across the Capital District to shop, dine, relax, enjoy live music, and other family activities.

Troy Night Out

Troy Night Out is a monthly arts and cultural event that takes place the last Friday of every month in Downtown Troy from 5:00PM until 9:00PM. The event regularly draws visitors from the City and greater Capital District. Attendees are able to enjoy art events, music venues, fine restaurants, and unique boutiques of all varieties.

3.5 PARKING REGULATIONS

Parking regulations, locations and operations of spaces greatly affect the use and desirability of parking spaces. Both on-street and off-street parking include a variety of use restrictions and rates. The following summarizes the applicable regulations governing parking for on-street and off-street facilities in the study area.

On-Street Regulation

All on-street parking in the study area is available for public use. No on-street permit parking is available and no other type of restriction by user group is in place (with the exception of accessible/handicap parking spaces). The following sections describe on-street time limits, no parking hours, and other user-restrictions.

Use Restrictions: Time Limit

Map 08 on page 46 shows the on-street parking by time limit for Downtown. Table 01 shows a summary of on-street parking by time limit. Table 02 shows a detailed list of street parking by time limit. Time limit regulations are posted on signage located on the street. A majority of parking spaces are either posted as two-hour parking (51.1%) or have no restricted time limit (37.2%).

The majority of two-hour parking signs Downtown also indicate enforcement only on weekdays from 9AM-5PM. However, the City Parking website states that all parking within the Central Business District (CBD) (i.e. Downtown) is limited to 2 hours between 9AM and 5PM. The website does not state weekdays only, and no map or definition of the boundaries of the CBD is provided. This inconsistency between on-street parking signage and the City Parking website may cause confusion for visitors using on-street parking.

The remaining on-street spaces consist of 15-minute, 20-minute, 30-minute parking, or posted signage for Troy Park and Shop. The Troy Park and Shop is limited to 3rd Street and 4th Street between Broadway and State Street and State Street between 3rd and 4th. It is not clear if there is any regulatory difference between the Park and Shop District signs versus other two-hour parking signs.

Table 01:
On-Street Parking by Time Limit (Grouped)

Time Limit	Count	Percent
15 Minute	32	2.0%
20 Minute	10	0.6%
30 Minute	67	4.1%
2 Hour	828	51.1%
Troy Park and Shop	27	1.7%
No Limit	602	37.2%
Unknown	54	3.3%
Total	1,620	100%

Table 02:
On-Street Parking by Time Limit (Detailed)

Time Limit	Count	Percent
1/2 hr 9AM - 5PM Weekdays	39	2.4%
15 min	26	1.6%
15 min 9AM - 9PM Mon - Sat	6	0.4%
2 hr 9AM - 4PM Weekdays	16	1.0%
2 hr 9AM - 5PM Weekdays	730	45.1%
2 hr Weekdays	82	5.1%
20 min 9AM - 6PM Weekdays	10	0.6%
30 min	17	1.0%
30 min 7AM - 6PM Weekdays	6	0.4%
30 min Parking	5	0.3%
No Limit	602	37.2%
Troy Parking District	27	1.7%
Unknown	54	3.3%
Total	1,620	100.0%

It is notable that the two-hour limit for parking makes up the majority of on-street parking spaces north of Ferry Street. Additionally, there are areas of 15-minute, 20-minute and 30-minute time limits spread throughout the Downtown north of Ferry Street. Areas of no time-limit restrictions are generally located south of Ferry Street.

Use Restriction: 'No Parking'

Map 09 on page 47 shows on-street 'No Parking' regulations. Table 03 shows a summary of on-street 'No Parking' regulations. There are a number of time periods where parking is restricted for all users. The most common on-street parking limit restrictions are:

- Tuesday, Thursday 4AM - 6AM (30.8%)
- Monday, Wednesday, Friday 4AM - 6AM (28.7%)

Table 03: On-Street Parking by 'No Parking' Hours

'No Parking' Category	Count	Percent
4AM - 6AM	72	4.4%
4AM - 7AM	32	2.0%
Monday, Wednesday, Friday 4AM - 6AM	465	28.7%
Tuesday, Thursday 4AM - 6AM	499	30.8%
7AM - 9AM and 4PM - 6PM	16	1.0%
Friday 12PM - 3PM	138	8.5%
Friday 9AM - 12PM	152	9.4%
Wednesday 130PM - 7PM; Monday, Wed, Friday 4AM - 6AM	11	0.7%
Wednesday 130PM - 7PM; Tuesday, Thursday 4AM - 6AM	11	0.7%
NO PARKING ANYTIME	0	0.0%
No Restriction	34	2.1%
Unknown	190	11.7%
Total	1,620	100%

Generally, No Parking restrictions alternate by days of the week or hours of the day between opposite sides of streets. In the study area, Ferry Street provides the separation between different times of alternating No Parking: MWF/TTh north of Ferry Street, and Friday AM/PM south of Ferry Street.

Additionally, the shift from MWF/TTH versus Friday AM/PM also matches the shift in areas that are time regulated for on-street parking and areas that have no time-limit restrictions. The purpose of no parking restrictions is for street cleaning, garbage collection, and snow plowing. Only 2.1% of parking spaces inventoried within the study area do not have No Parking restrictions.

Use Restriction: Accessible/Handicap

Some on-street parking spaces are reserved for accessible/handicap parking. This parking is included in the total as part of the on-street parking supply. Additionally, some areas where on-street parking could be made available are reserved for loading areas or parking for specific service vehicles (police, courts, etc.). These areas/spaces were not included in counts for on-street parking supply.

MAP 08 | On-Street Parking by Time Limit

- 15 Minute
- 20 Minutes
- 30 Minutes
- 2 Hour
- Park and Shop District
- No Time Limit
- Unknown
- - - StudyArea
- - - Monument Square Quarter-Mile
- Property Lines



MAP 09 | On-Street Parking
by 'No Parking' Regulation

- 4am-6am
- 4am-7am
- Monday, Wednesday, Friday 4am-6am
- Tuesday, Thursday 4am-6am
- Wednesday 130pm-7pm; Monday, Wed, Friday 4am-6am
- Wednesday 130pm-7pm; Tuesday, Thursday 4am-6am
- 7am-9am, 4pm-6pm
- Friday 12pm-3pm
- Friday 9am-12pm
- None
- Unknown
- StudyArea
- Monument Square Quarter-Mile
- Property Lines



Off-Street Regulation

Off-street parking includes all public and private parking located on surface lots and in garages within the study area. Residential private driveways were not included in the inventory. There are a total of 111 off-street parking facilities with a total of 4,254 parking spaces with varying restrictions and ownership. For a detail of off-street parking facility ownership, see section 3.7 Enforcement and Management.

Use Restrictions: User-Related

Most all off-street lots have some level of user-related restriction. Map 10 on page 50 shows off-street parking by user-related restrictions. Table 04 below shows the different levels of user-related restrictions for off-street parking.

Only 2.8% of off-street spaces in Downtown Troy are publicly available at all times. These spaces consist of off-street parking spaces that are available to the general public at all times and are not dedicated for a specific land use.

Publicly available (land use only) consists of surface lots that are available to the general public, but are only allowed to be used for visitors patronizing a specific land use (which can be located on-site or off-site). For example, a surface parking lot owned and operated by a local bank is publicly available, but only for bank customers.

Permit Needed facilities consist of surface lots and/or parking garages that require a pre-paid permit at all times. Permit facilities consist of both publicly-owned facilities (e.g., City-owned surface parking lots) and privately-owned facilities (e.g., Russell Sage surface parking lot for students/faculty).

Permit (Publicly available nights and weekends) facilities consist of surface parking lots and parking garages that require a pre-paid permit in order to park during certain hours. For City-owned lots and garages, however, hours are not indicated on the signs outside of the parking facilities. These off-street facilities allow general public parking during off-peak hours (nights and weekends) without a pre-paid permit and can either be pay for parking or free. All of the City-owned parking facilities in the study area, with

Table 04: Off-Street Parking by User-Related Restriction

Availability	Spaces	Percent
Publicly Available (All Times)	117	2.8%
Publicly Available (Land Use Only)	1,432	33.7%
Permit Needed (Publicly Available Nights and Weekends)	1,297	30.5%
Permit Needed (All Times)	894	21.0%
Private Use	95	2.2%
Tenant Only	243	5.7%
Unknown	176	4.1%
Total	4,254	100.0%

the exception of the Front Street surface lot, require a permit to park in the facility on weekdays between 9:00AM and 5:00PM, and are free to park for the general public during evenings and weekends.

Tenant Only consists of surface lots that are available only to tenants of a specific building. These facilities can either be publicly-owned (e.g., residents of specific buildings owned by the Troy Housing Authority) or privately-owned.

Use-Restrictions: Time of Day

While there is an inventory of approximately 4,254 off-street spaces in the study area, the number of spaces available to the general public on weekdays, weekday nights, and weekends varies. During the field collection periods, there were only 117 off-street spaces available to the general public on weekdays (surface lot to the west of City Station West, and another surface lot located adjacent to Federal Street). 1,432 off-street spaces were available to the general public on weekdays, but for associated land uses. When these two groups are combined, 1,549 spaces were available to the general public on weekdays during regular business hours.

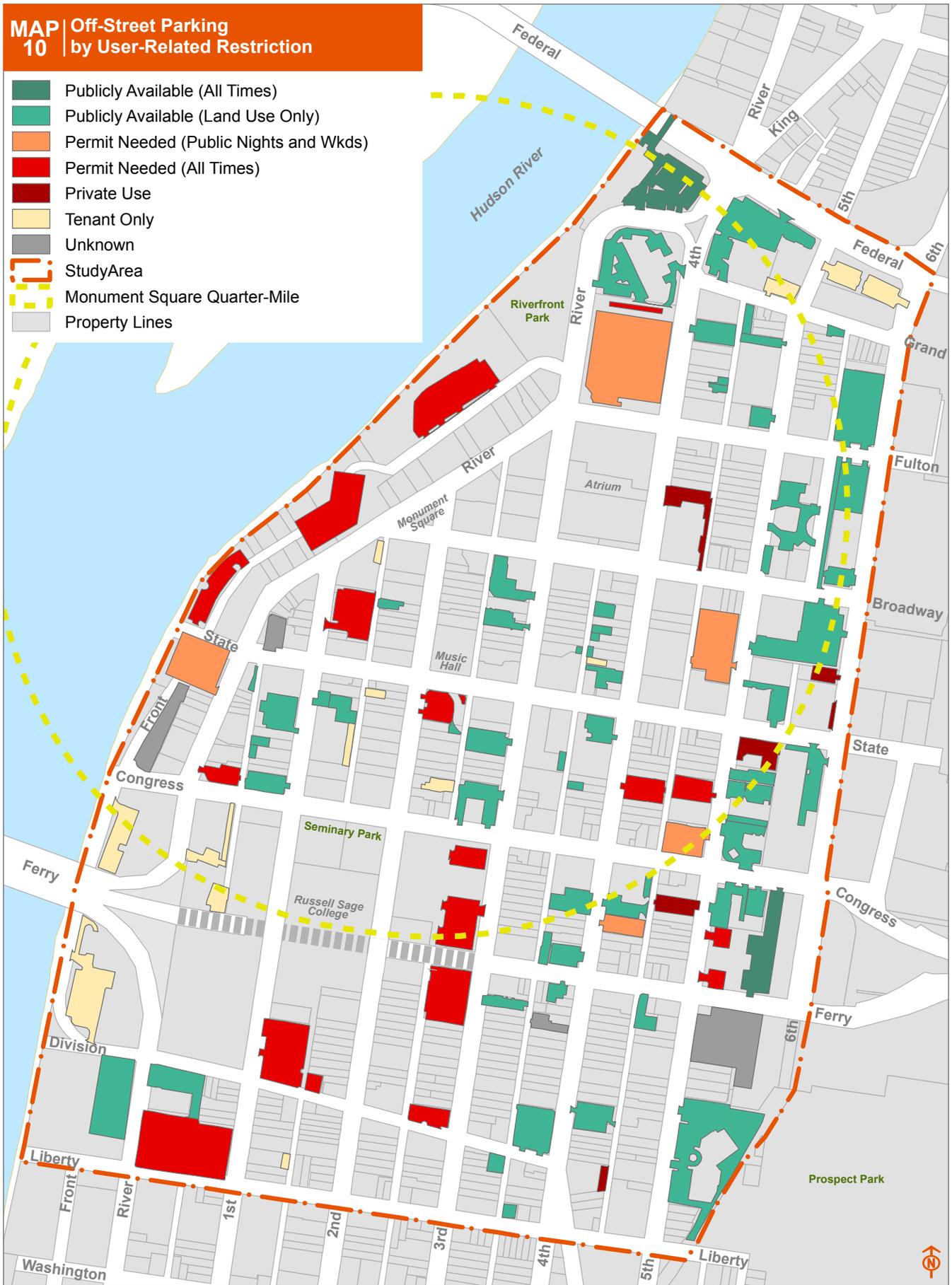
On weekday evenings and weekends, there were an additional 1,297 off-street spaces available to the general public. These additional facilities include:

- Uncle Sam Parking Garage;
- City of Troy Fifth Avenue Garage;
- City of Troy Congress Street Lot;
- City of Troy Y-Lot;
- City of Troy State Street Garage; and
- City of Troy Fourth Street Lot.

When viewed together, there are 2,846 off-street parking spaces available to the general public. These spaces, as noted, are not available to everyone at every time due to user-restrictions and time of day/week restrictions. 1,232 off-street parking spaces have restrictions that prevent use for the general public at all times.

MAP 10 | Off-Street Parking
by User-Related Restriction

- Publicly Available (All Times)
- Publicly Available (Land Use Only)
- Permit Needed (Public Nights and Wkds)
- Permit Needed (All Times)
- Private Use
- Tenant Only
- Unknown
- StudyArea
- Monument Square Quarter-Mile
- Property Lines



3.6 PARKING RATES AND REVENUES

Public Parking Rates

174 on-street parking spaces in Downtown require the user to pay at a parking pay station. This accounts for 10.7% of the on-street parking supply. Map 04 on page 31 shows the location of on-street parking by cost for Downtown. Table 05 shows a count and percentage of parking pay stations. At the time of the inventory portion of this study, there were 23 pay stations located within Downtown. All blockfaces requiring users to pay for parking have one or two pay stations. Along some blocks, pay stations are located only on one side of the street, which may cause confusion for users. Pricing for all pay stations is the same fixed amount of \$1.00 per hour, with the ability to pay for up to 4 hours at a time. No time-limit signs exist for blocks with pay stations, and no signs exist stating if payment to park was required for all hours or the day or for certain days of the week.

Table 05: Presence of Pay Stations

Method	Count	Percent
Pay Station	174	10.7%
Free	1,446	89.3%
Total On-Street Spaces:	1,620	100.0%

There are seven (7) publicly-owned parking garages/lots in the City of Troy. All of the garages/lots cost \$60.00 per month (\$720.00 per year). None of the parking lots are metered. Anyone (resident or non-resident) can apply to obtain a permit. Most all of the lots and garages are permit only from 9:00AM to 5:00PM with free parking available to the general public during nights and weekends. The Front Street lot, however, was posted as permit only at all times.

City-owned Parking Facilities

- 5th Avenue
- Y-Lot
- Congress Street
- 4th Street
- Front Street
- State Street
- Green Island Bridge

City of Troy Parking Revenue

A parking revenue analysis was completed for the period 2012 through July 2015. The City tracks parking revenues from parking meters (cash & credit card), parking garages, surface parking lots, tickets and towing. Figure 08 below shows the per-category revenues for years 2012-2014 and a projected 2015. To calculate the projected revenues for 2015, an average per month, per category was used from August to December 2012-2014. Those averages per month and per category were then used as the baseline estimate for monthly revenues for August to December 2015.

Total revenues of all categories (figures rounded):

- 2012: \$1,040,000
- 2013: \$1,000,000
- 2015: \$1,063,000
- July 2015: \$ 674,000
- Total 2015 Projected: 1,085,000

For all four years where data was provided, the amounts and proportion of parking revenues from each category remained fairly consistent. Between 2012 and 2015 (projected),

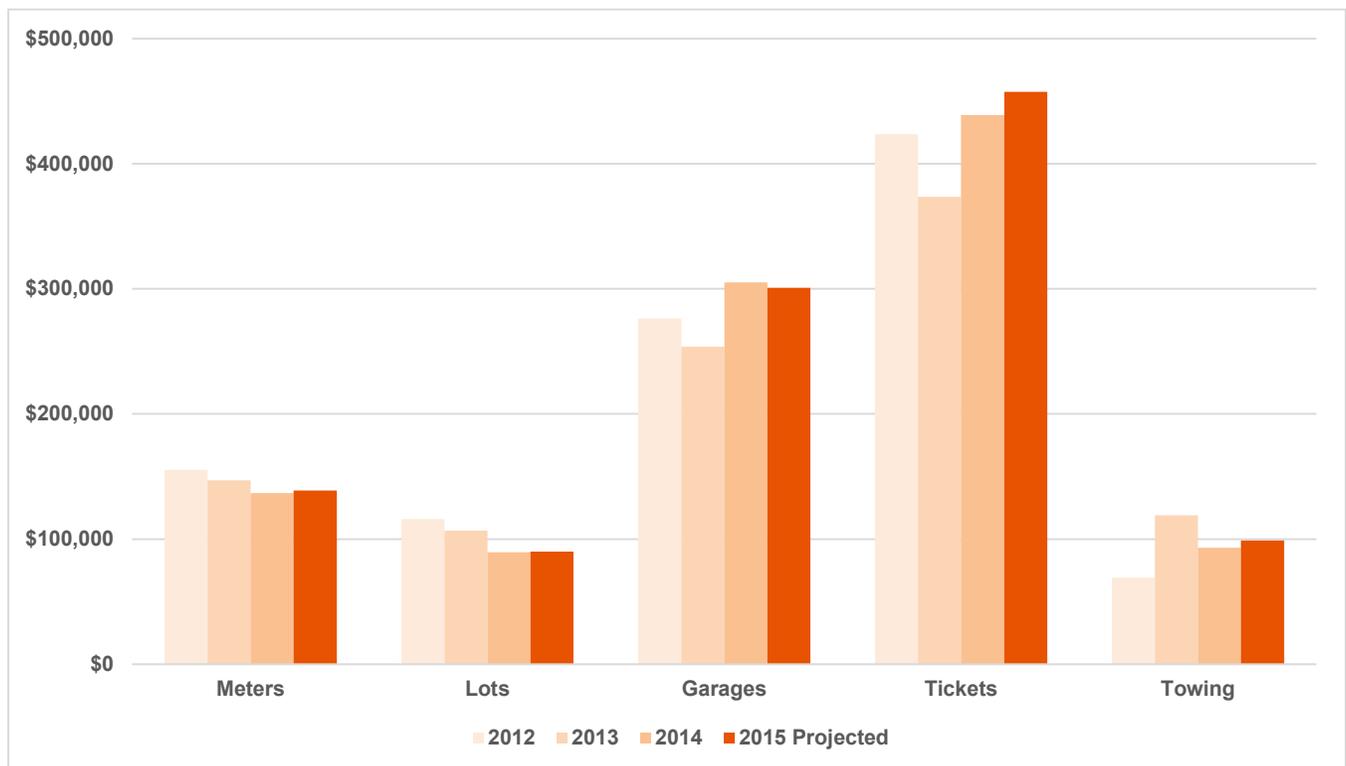


Figure 08: City of Troy Parking Revenues 2012-2015 (Projected)

parking tickets was the largest category of parking revenues. Revenue from off-street parking facilities (parking lots and garages) provided the next largest source of revenue. Revenue from on-street parking meters (cash and credit cards) was the third largest source of revenue, with revenues from credit cards at least twice as much as cash revenues. The higher revenue rates from credit cards for on-street parking indicate a preference of users to use credit cards at on-street pay stations. Revenues from towing made up the smallest revenue category.

In addition to analyzing revenues by category, parking meter revenues by month were analyzed to see if a monthly pattern emerged. See Figure 09 below for a graph of parking meter revenues by month.

The graph combines revenues from both sources of parking meter cash and credit payments. When cash and credit payments were analyzed separately, each form of payment followed the similar pattern of higher and lower revenues by month. Most noticeably, parking meter revenues declined during the summer months (May, June, July, and August). For each year, the months of June and July were the lowest revenue producing months. Additionally, on-street revenues were low during the months of December and

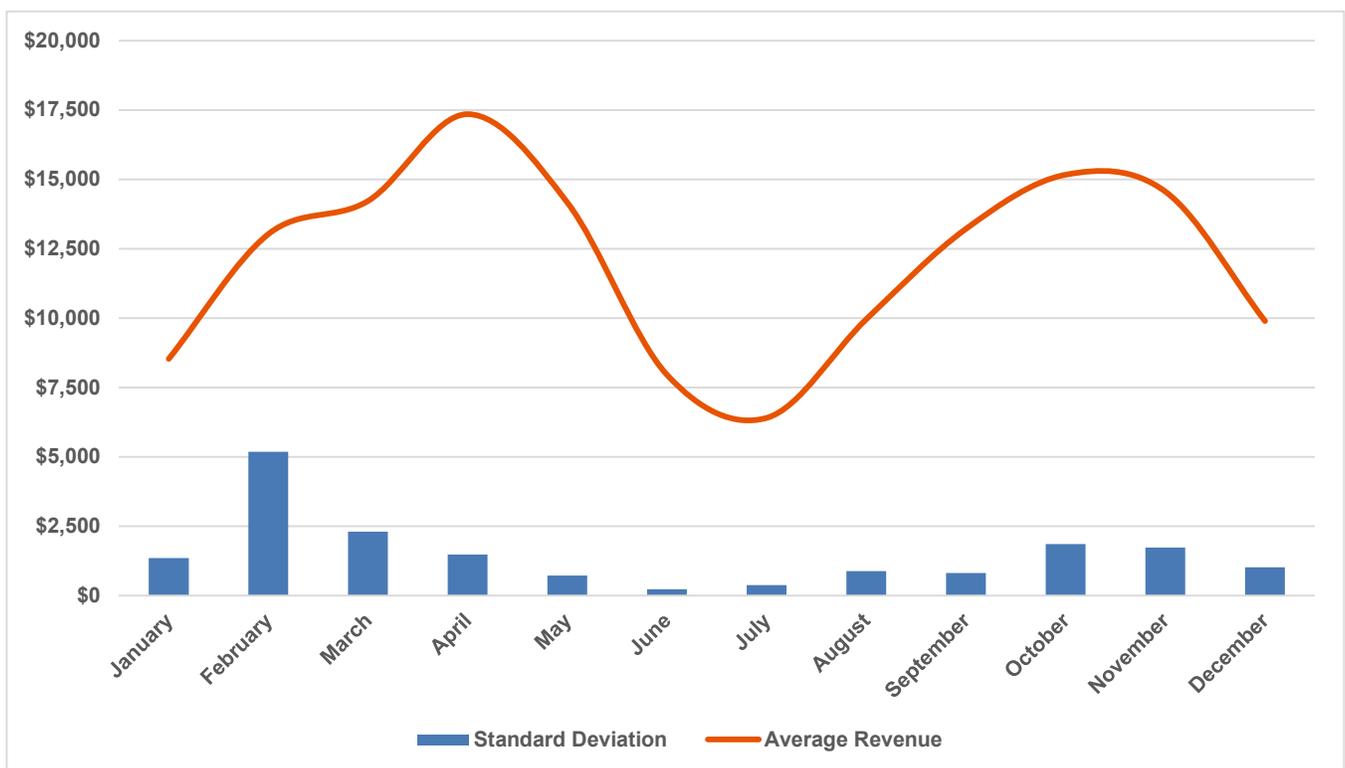


Figure 09: City of Troy Parking Meter Revenues by Month 2012-2015 (Projected)

January. Spring and fall months (March, April, September, October and November) typically produce the largest revenues during the year. Parking meter revenue data may indicate that months during the school year (primary, secondary and higher education) create the highest demand/utilization of on-street parking with pay stations. However, it is noted that a number of parking pay stations are located outside Downtown. Revenue figures above are for all pay stations in the City of Troy. The presence of parking pay stations immediately adjacent to RPI and other specific uses may impact parking pay station revenues during certain times of the year. At the time study data was collected, there were only 23 parking pay stations located within Downtown. The vast majority of on-street parking is not metered.

The City of Troy directs collected parking revenues to the City's General Fund. When parking revenue is added to the General Fund, it is spent on citywide services and is not specifically earmarked for infrastructure specific to the parking system.

Private Parking Rates

Uncle Sam Garage

The Uncle Sam Garage is a privately-owned parking facility adjacent to the Troy Atrium on Fulton Street. The garage is large, spanning the entire block between 3rd Street and 4th Street. The garage has a maximum capacity of 751 vehicles and accounts for 17.7% of off-street parking options in Downtown Troy. The garage was publicly-owned until 2010, when it was sold to a private realty group for \$2,400,000. As part of the conditions of sale, the buyer agreed to allow free parking, for a period of ten (10) years, during evenings (after 5:00PM), weekends, and major holidays (specified as Christmas, New Years, Memorial Day, Fourth of July, Labor Day, and Thanksgiving). In addition, the City of Troy would have the ability to use and charge non-permit holders for the use of the facility an additional three (3) days to be agreed upon in advance.

The Capital District Transportation Authority (CDTA), working with the owner of the parking garage, recently approved the construction of a \$4,000,000 transit center at the corner of the 4th Street and Fulton Street, where eleven (11) bus routes currently converge. It is estimated that the transit center will be utilized by approximately 4,000 people-per-day (over 1,000,000 annually).

Russell Sage College

Russell Sage College has a permit parking system for students. Permits follow the academic calendar and expire on August 31st of every year. Permits for students cost \$50 from September 1st to December 31st, \$30 from January 1st to May 15th, and \$20 from May 16th to August 31st. Adjunct professors may obtain an annual permit for \$20. Full-time faculty and college staff may obtain a second annual permit for \$20 (presumably for a different, second vehicle) to allow them to park in one of Russell Sage's off-street parking lots.

All full-time, undergraduate students pay the \$50 permit fee as part of their tuition comprehensive fees. Sage College's Troy campus encompasses 10-acres in the heart of Downtown Troy. Dedicated off-street, surface parking lots are located on the periphery of the campus off of Ferry Street, Division Street, Congress Street, and 1st Street.

3.7 ENFORCEMENT AND MANAGEMENT

Map 11 shows the location of off-street parking facilities by ownership. Table 06 to the right presents a summary of off-street parking by ownership.

Privately Owned Parking

The majority of off-street parking facilities and spaces are privately-owned: 2,842 spaces, or 66.8% of the off-street parking supply in the study area. Of the privately-owned parking spaces, Uncle Sam Garage (751 spaces) and Russell Sage College (589 spaces) comprise the largest number of off-street parking spaces, with 17.7% and 13.8% of the total study area off-street parking supply, respectively.

Off-street parking facilities are generally either privately-owned (majority) or publicly-owned. One surface parking lot is jointly owned by the City of Troy and University Partners LLC. This lot/garage was recently constructed and is associated with the new mixed-used development, City Station. Post the data collection period for this study, more lot and garage parking was added as City Station developed.

Publicly Owned Parking

Publicly-owned off-street parking in the study area accounts for 1,412 spaces, or 33.2% of the off-street parking supply in the study area.

In addition to parking facilities that are owned by the City of Troy, there is also publicly-owned land that is dedicated for parking, but either underutilized or no longer used for parking. One example includes parking associated with the vacant housing units and surface parking lots owned by the Troy Housing Authority (THA) adjacent to River Street between Congress Street and Ferry Street. As the land is owned by a public entity and vacant, it could be used to increase the parking supply in the short or long term, as needed.

The City of Troy manages its parking through four separate departments: the Troy Treasurer – for payments acquisition of monthly permits, the Troy Police Department and Department of Public Works (street-cleaning team) – for enforcement of parking policies and regulations (i.e. ticketing), and the Parking Department – for management

Table 06: Off-Street Parking by Ownership

PRIVATE OWNER	Spaces	Percent of Total
Russell Sage College	589	13.8%
Uncle Sam Garage LLC	751	17.7%
All other	1,502	35.3%
Sub-Total	2,842	66.8%

PUBLIC OWNER	Spaces	Percent of Total
City of Troy	788	18.5%
City of Troy / University Partners	108	2.5%
Troy Housing Authority	225	5.3%
Rensselaer County	132	3.1%
Rensselaer County IDA	124	2.9%
NYS DOT	35	0.8%
Sub-Total	1,412	33.2%

Off-Street Parking Total	4,254	
---------------------------------	--------------	--

MAP 11 | Off-Street Parking
by Facility Ownership

- Public, City of Troy
- Public, All Other
- Public/Private, City of Troy/University Partners
- Private, Uncle Sam Garage LLC
- Private, Russell Sage College
- Private, All Other
- StudyArea
- Monument Square Quarter-Mile
- Property Lines



of public information (website), establishment of parking permit fees, and management of publicly-owned garages and off-street parking lots.

As a result, there is no single department that manages the entire parking system, from collection and analysis of information on the parking system, to providing recommendations for how policy and development can impact the parking system.

Parking information is provided on the City's website, under the Parking Department web-page. The web-page provides information on the location of City-owned surface parking lots and parking structures as well as contact information to other departments for permitting, payment, etc. The website does not provide locations of on-street parking but provides general cost per hour for pay stations and parking time limits. The website does not provide any information for non-City-owned private parking areas. Other than this web-page and the Troy BID online parking map, there is no other online resource for off-street parking, whether publicly-owned or private.

3.8 PARKING DEMAND (UTILIZATION)

Methodology

Parking utilization counts were conducted between Thursday, July 30th and Saturday, August 1st 2015 for both on-street and off-street parking facilities. The list below shows the days and times of the utilization counts. The list also includes the corresponding maps which graphically show utilization across Downtown.

		On-Street	Off-Street
Thursday, July 30, 2015	10AM - 3PM	Map 12	Map 13
Friday, July 31, 2015	10AM - 3PM	Map 14	Map 15
Friday, July 31, 2015	5PM - 10PM	Map 16	Map 17
Saturday, August 1, 2015	9AM - 12PM	Map 18	Map 19

The dates and times for conducting the parking utilization counts were chosen to capture typical parking conditions across a range of times parking is demanded, and parking conditions that would be experienced by a number of different users (Downtown residents, Downtown workers, visitors attending special events, etc.). Counts conducted between 10AM and 3PM on Thursday and Friday captured the typical demand from a normal workday during peak business hours. Counts conducted on Friday evening (5PM to 10PM) captured the typical parking demand for Troy Night Out. Counts conducted on Saturday (9AM to 12PM) captured the typical parking demand for the Summer Market.

Parking utilization counts were conducted in person, walking each parking location (on-street block or off-street facility). Prior to the site visit and for comparison purposes, a desktop count of the number of available on-street and off-street parking spaces available were established using Google Earth, Google Maps, and a Geographic Information Systems (GIS). For on-street parking locations without striping, a 20-foot long space was used to determine the number of available parking spaces per block.

Each on-street space was counted as occupied or unoccupied as the counter walked past each individual space. This allowed the counter to verify the number of available spaces on each block accurately. A space was recorded as occupied or unoccupied only as the counter passed each individual space; if a car left a parking space, or arrived to park in a space before or after a space was counted, that change was not recorded. This process was repeated for each block within the study area, and the same process was

conducted for off-street parking facilities.

On-Street Utilization

On-street utilization maps start on page 64. Table 07 summarizes all on-street utilization by counting period.

Looking at the study area as a whole, the lowest utilization of on-street parking was found to be on Thursday, July 30th during typical working hours (53.0% utilized).

The highest utilization of on-street parking was found to be on Friday, July 31st during Troy Night Out (61.9% utilized). The difference between the highest numbers of observed occupied spaces and the lowest number of observed occupied spaces was 143 on-street parked vehicles. The average parking utilization for all four periods throughout the study area was 56.6%. While these numbers are within an acceptable level of on-street percent utilization, the on-street parking utilization was not uniform throughout Downtown. Higher concentrations of on-street parking utilization in specific geographic areas, and along certain streets in the study area, were observed

Table 07: On-Street Utilization by Counting Period

Day	Time	Count	Percent Utilization
July 30, 2015	10AM - 3PM	859	53.0%
July 31, 2015	10AM - 3PM	907	56.0%
July 31, 2015	5PM - 10PM	1,002	61.9%
August 1, 2015	9AM - 12PM	900	55.6%
Total On-Street Spaces:		1,620	

Thursday, July 31 and Friday, July 31st 10AM – 3PM

Counts from Thursday, July 30th (Map 12) and Friday, July 31st (Map 14) during business hours (10AM – 3PM) were found to have a concentration within one to three blocks of Monument Square. This area of concentration showed:

- Parked vehicles were utilizing less than the standard parking space length of 20 feet. This resulted in some areas reaching over-capacity. However, while these areas showed over-capacity, motorists were noted to be parking relative to their length of vehicle.
- Several sections within this area showed 100% utilization. However, close by parking areas had available parking. Some sections of 100% utilization showed nearby spots available on the other sides of the street, others one-half block away, and others one block away.
- While parking near Monument Square shows at- and over-capacity, within a one-quarter mile (or 5-minute) walking distance parking utilization rates varied between 0% and 84.9%.
- Generally, parking utilization rates near the one-quarter mile radius edge show parking utilization rates from 0% to 84.9%.
- Division Street and Liberty Street showed higher levels of concentration. While utilization rates above 85% were observed in this area, adjacent streets showed utilization below 50%.

Friday, July 31st 5PM – 10PM (Troy Night Out)

The counts taken during Troy Night Out on July 31, 2015 from 5PM – 10PM (Map 16) showed the same general characteristics from the counts completed during peak businesses hours on Thursday and Friday. Notable observations from this count includes:

- Higher concentrations were seen in and around Monument Square. These concentrations, however, were higher and broader than the previous counts.
- A concentration above 85% utilization was seen along Division Street.
- Similar to the day count, adjacent streets showed utilization below 50%.

Saturday, August 1 9AM – 12PM (Troy Waterfront Farmers Market)

The Troy Waterfront Farmers Market is a very popular weekly event in Downtown Troy, and many people from around the area come to shop and visit. With an increased number of visitors, and closure of city streets for market vendors, parking utilization was observed to be higher during this event. Map 18 shows this impact of the Summer Market on parking utilization. This area of concentration showed:

- The Summer Market necessitates the closure of portions of River Street, 2nd Street, and Franklin Street. Therefore, 0% utilization is shown on Map 18 for this event/time period.
- The highest levels of on-street parking utilization were seen in areas east of the market boundary. 100% and over-capacity utilization is seen for several blocks.
- Lower levels of utilization were seen in areas south and south-east of the market. These levels generally showed levels of utilization from 50-84.9%.

Free vs. Pay Station Utilization

Another factor influencing on-street parking utilization includes whether parking is free or paid. Table 08 compares parking utilization rates for spaces that are available for free or require payment. Paid parking utilization rates were typically less than free parking during the workday. However, paid parking utilization rates were higher than free parking during Troy Night Out, and the Summer Market.

Table 08: Fee vs. Pay Parking Utilization by Counting Period

Day	Time	Free Parking Count	Free Parking Utilization	Pay Station Count	Pay Station Utilization
July 30, 2015	10AM - 3PM	804	55.6%	55	31.6%
July 31, 2015	10AM - 3PM	830	57.4%	77	44.3%
July 31, 2015	5PM - 10PM	889	61.5%	113	64.9%
August 1, 2015	9AM - 12PM	762	52.7%	138	79.3%
Total On-Street Spaces:		1,620			
Total Free Spaces:		1,446			
Total Pay Spaces:		174			

Off-Street Utilization

Off-street utilization maps start on Page 65. Table 09 shows off-street utilization by counting period. As noted above, the time periods Friday, July 31 5PM - 10PM occurs during Troy Night Out, and Saturday, August 1 9AM – 12PM occurs during the Summer Market. These large events concentrate pedestrian and vehicle activity. As shown on the on-street parking utilization maps, the highest level of activity is centered on Monument Square.

Table 09: Off-Street Utilization by Counting Period

Day	Time	Count	Percent Utilization
July 30, 2015	10AM - 3PM	2,028	47.7%
July 31, 2015	10AM - 3PM	1,828	43.0%
July 31, 2015 (80% observed, 20% estimated)	5PM - 10PM	1,435	33.7%
August 1, 2015 (80% observed, 20% estimated)	9AM - 12PM	1,608	37.8%
Total Off-Street Spaces:		4,254	

Because of the amount of activity during the July 31 5PM – 10PM and August 1 9AM – 12PM counting periods, data collection efforts were prioritized to capture the utilization rates of the primary parking facilities that serve those events. Both of these events concentrate activity in the northwest portion of the study area surrounding Monument Square. Additionally, there were no other special events on the eastern or southern periphery of the study area that would cause an increase in demand above normal conditions. As a result, to capture the peak parking utilization of the most demanded parking facilities during special events, it was determined that utilization counts would be focused on parking facilities located in the northern and western half of the study area. Utilization counts for specific off-street facilities were prioritized for publicly-owned facilities, publicly-available facilities, and facilities with the largest number of spaces available. During the July 30 and July 31 10AM – 3PM counting periods, all 4,254 spaces in the study area were counted. During the July 31 5PM – 10PM and August 1 9AM – 12PM counting periods, 80% of off-street spaces were counted. This provided an adequate sample to assess parking demand during those time periods.

Based on the count data, parking utilization for off-street parking facilities is lower than on-street parking utilization. Similar to the on-street parking conditions, off-street parking utilization was not uniform throughout Downtown. Consistently higher concentrations of off-street parking utilization was seen in facilities within specific geographic areas of Downtown. Similar to on-street parking utilization, off-street utilization show that facilities with the highest utilization are generally located in the northwest quadrant of Downtown, north of Congress Street and west of 5th Street. Furthermore, as parking demand increased across counting periods, utilization rates at the periphery of the most in demand areas gradually increased and moved further to the east and south.

Page intentionally blank

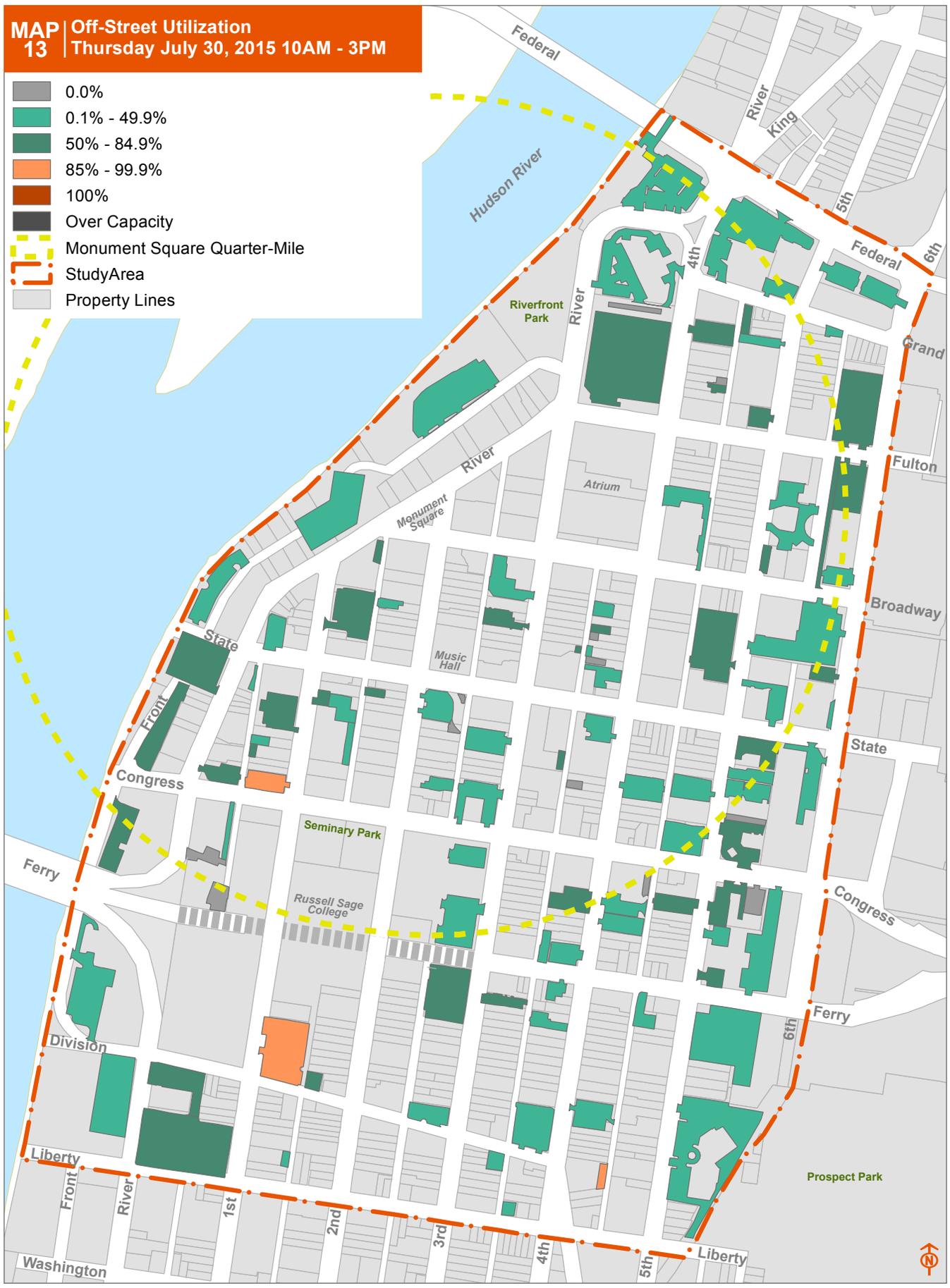
MAP 12 | On-Street Utilization
 Thursday July 30, 2015 10AM - 3PM

- 0.0%
- 0.1% - 49.9%
- 50.0% - 84.9%
- 85.0% - 99.9%
- 100.0%
- Over Capacity
- - - Monument Square Quarter-Mile
- - - StudyArea
- ▭ Property Lines



MAP 13 | Off-Street Utilization
Thursday July 30, 2015 10AM - 3PM

- 0.0%
- 0.1% - 49.9%
- 50% - 84.9%
- 85% - 99.9%
- 100%
- Over Capacity
- Monument Square Quarter-Mile
- Study Area
- Property Lines



MAP 14 | On-Street Utilization
 Friday July 31, 2015 10AM - 3PM

- 0.0%
- 0.1% - 49.9%
- 50.0% - 84.9%
- 85.0% - 99.9%
- 100.0%
- Over Capacity
- - - Monument Square Quarter-Mile
- - - Study Area
- ▭ Property Lines



MAP 15 | Off-Street Utilization
 Friday July 31, 2015 10AM - 3PM

- 0.0%
- 0.1% - 49.9%
- 50% - 84.9%
- 85% - 99.9%
- 100%
- Over Capacity
- Monument Square Quarter-Mile
- Study Area
- Property Lines



MAP 16 | On-Street Utilization
Friday July 31, 2015 5PM - 10PM

-  0.0%
-  0.1% - 49.9%
-  50.0% - 84.9%
-  85.0% - 99.9%
-  100.0%
-  Over Capacity
-  Monument Square Quarter-Mile
-  Study Area
-  Property Lines



MAP 17 | Off-Street Utilization
Friday July 31, 2015 5PM - 10PM

- 0.0% or Not Counted
- 0.1% - 49.9%
- 50% - 84.9%
- 85% - 99.9%
- 100%
- Over Capacity
- Monument Square Quarter-Mile
- Study Area
- Property Lines



MAP 18 | On-Street Utilization
 Saturday August 1, 2015 9AM - 12PM

- 0.0%
- 0.1% - 49.9%
- 50.0% - 84.9%
- 85.0% - 99.9%
- 100.0%
- Over Capacity
- - - Monument Square Quarter-Mile
- - - Study Area
- ▭ Property Lines



MAP 19 | Off-Street Utilization
 Saturday August 1, 2015 9AM - 12PM

- 0.0% or Not Counted
- 0.1% - 49.9%
- 50% - 84.9%
- 85% - 99.9%
- 100%
- Over Capacity
- Monument Square Quarter-Mile
- Study Area
- Property Lines



4.0 PARKING SUPPLY AND DEMAND ANALYSIS

Downtown Parking Study
Troy, New York

4.1 KEY FINDINGS

- Based on current parking demand (utilization) captured for this study, there is a surplus of on-street parking in Downtown Troy.
- Based on current demand (utilization) captured for this study, there is a surplus of off-street parking in Downtown Troy.
- Observed daily variations in demand (utilization) showed on-street and off-street parking as unbalanced, with distinctly higher concentrations of parking in specific areas and along specific streets in Downtown Troy.
- Future fluctuations in demand based on growth and development should be analyzed with follow-up studies.

4.2 OVERVIEW AND METHODOLOGY

As part of this study, the City of Troy Planning and Community Development Department needed accurate, and up-to-date data, on the current parking supply and demand (utilization) in Downtown Troy. This would allow the City to make informed decisions when planning for and approving future development. It would also support the planning of near-term solutions for the real and perceived parking pressures felt by businesses, residents, and visitors. The parking supply and demand (utilization) analysis determined the current publicly-owned and privately-owned parking supply in Downtown Troy. In addition, the analysis provides current parking data on how those publicly-owned and privately-owned spaces are utilized in order to establish findings regarding whether or not there is a shortfall of readily-available parking in Downtown Troy.

4.3 PARKING SUPPLY IN DOWNTOWN TROY

There are 5,874 total parking spaces in Downtown Troy – 1,620 on-street parking spaces representing 28% of the total parking supply and 4,254 off-street parking spaces, representing 72% of the total parking supply.

On-Street Supply and Demand

At all times in which data was recorded, the total utilization of on-street parking was below what is often considered the industry standard range of 70% to 85% occupancy. Table 07 illustrates the on-street utilization for each of the counting periods.

The highest utilization (61.9%) of on-street spaces was during Troy Night Out on Friday, July 31st from 5:00PM to 10:00PM and the lowest (53.0%) was during peak business hours on Thursday, July 30th from 10:00AM to 3:00PM. The difference between the highest number of observed occupancy (1,002 vehicles) and the lowest number of observed occupancy (859 vehicles) was 143 vehicles parked on-street. Averaging the four time windows resulted in an average total utilization of 56.6%.

Table 07: On-Street Utilization by Counting Period

Day	Time	Count	Percent Utilization
July 30, 2015	10AM - 3PM	859	53.0%
July 31, 2015	10AM - 3PM	907	56.0%
July 31, 2015	5PM - 10PM	1,002	61.9%
August 1, 2015	9AM - 12PM	900	55.6%
Total On-Street Spaces:		1,620	

Monument Square is the heart and soul of Downtown Troy, if not geographically, certainly programmatically/culturally and in terms of being a physical landmark in the cityscape. Within a five-minute walk (0.25 mile) of Monument Square, there are 1,009 on-street parking spaces, representing 62.3% of total on-street parking supply in Downtown Troy. At no point in the four time windows did the occupancy of the available on-street parking located within a five-minute walk of Monument Square exceed 75% - on average 67.5% of on-street spaces were being utilized. A breakdown of the utilization of on-street parking located within a five-minute walk of Monument Square is presented in Table 10.

Table 10: On-Street Utilization 1/4 Mile around Monument Square

Day	Time	Count	Percent Utilization
July 30, 2015	10AM - 3PM	610	60.5%
July 31, 2015	10AM - 3PM	684	67.8%
July 31, 2015	5PM - 10PM	756	74.9%
August 1, 2015	9AM - 12PM	674	66.8%
Total On-Street Spaces within 1/4 mile:		1,009	
Percent of Total Downtown On-Street Supply:		62.3%	

Off-Street Supply and Demand

Based on the utilization counts, 72% of the parking supply in Downtown Troy is located off-street, in either parking garages or parking lots, compared to 28% of the parking supply that on-street spaces represent. This 72% accounts for 4,254 of the total number of parking spaces available in Downtown Troy (of which there are 5,874).

There are three parking garages located in Downtown Troy: the State Street Garage and 5th Avenue Garage, both publicly-owned and the Uncle Sam Garage, which is privately-owned (which was publicly-owned until sold by the City in 2010). The City of Troy’s public parking garages, the Uncle Sam Garage, and all, but one, of the public surface parking lots (Troy Riverfront Park) are open, free-of-charge, during evenings and weekends. During peak business hours on Friday, July 31st, the total utilization rate for all of the off-street parking facilities (garages/ lots) was 43%. On the night of Friday, July 31st (Troy Night Out) and on Saturday, August 1st (Summer Market), 80% of the off-street parking spaces were directly observed and the total utilization rate of those spaces was 35.2% (Friday night) and 39.5% (Saturday), respectively.

Table 09: Off-Street Utilization by Counting Period

Day	Time	Count	Percent Utilization
July 30, 2015	10AM - 3PM	2,028	47.7%
July 31, 2015	10AM - 3PM	1,828	43.0%
July 31, 2015 (80% observed, 20% estimated)	5PM - 10PM	1,499	35.2%
August 1, 2015 (80% observed, 20% estimated)	9AM - 12PM	1,680	39.5%
Total Spaces Downtown:		4,254	

The utilization of off-street parking was lower than on-street parking during the time windows in which direct observations were taken and findings were made. Off-street parking utilization was fairly consistent, although fewer people used off-street parking facilities during nights and weekends – when many of the facilities were free to park – than during peak business hours.

Regardless of whether or not off-street parking lots/garages are publicly- or privately-owned, they are similarly utilized (and similarly underutilized, with less than 50% occupancy for the vast majority of facilities in Downtown Troy).

Monument Square is Downtown Troy’s centerpiece and in many respects is the City of Troy’s “front door.” Within a five-minute walk of Monument Square, there are approximately 2,955 off-street parking spaces, representing 69.5% of total off-street parking supply in Downtown Troy. At no point in the four time windows did the occupancy of these off-street

parking facilities (lots/garages) exceed approximately 50% occupancy – in other words, for every five (5) off-street spaces occupied in Downtown Troy, there were at least five (5) that were left empty. A breakdown of the utilization of off-street parking located within a five-minute walk of Monument Square is presented in the Table 11.

Table 11: Off-Street Utilization 1/4 Mile around Monument Square

Day	Time	Count	Percent Utilization
July 30, 2015	10AM - 3PM	1442	48.8%
July 31, 2015	10AM - 3PM	1493	50.5%
July 31, 2015 (80% observed, 20% estimated)	5PM - 10PM	1176	39.8%
August 1, 2015 (80% observed, 20% estimated)	9AM - 12PM	1324	44.8%
Total On-Street Spaces within 1/4 mile:		2,955	
Percent of Total On-Street Supply:		69.5%	

4.4 PARKING CAPACITY AND SHORT-TERM FORECAST

Downtown Troy currently has the parking capacity needed to provide readily available parking to its residents, businesses, and visitors; an overall shortfall of parking in Downtown Troy was not identified. With the exception of localized areas of high demand, there is an overall on-street and off-street parking surplus. In general, Downtown Troy is over-parked and on-street parking is not achieving the ideal 85% occupancy utilization rates. However, the localized demand that exceeds 85% occupancy that occurs on several streets does adversely affect users' perception of parking. These localized problems can be remedied through implementation of parking management strategies, utilizing existing facilities.

Demand (utilization) of the available parking is not evenly dispersed among available on-street and off-street parking options. Downtown Troy is currently over-parked and several of the surface parking lots represent excellent opportunities for infill construction, pocket parks, etc. Downtown Troy has built-in capacity to accommodate future population growth and the availability of on-street and off-street parking options are major incentives to be touted for economic development purposes, as it eliminates – or at a minimum makes much easier – a major hurdle developers/investors/builders face when deciding on potential project locations. Alternatively, the availability of largely empty parking lots provides excess capacity that can be utilized in the future as Downtown Troy continues to experience development pressure and renewed interest from visitors. This could also help avoid creating a situation in which Downtown Troy's density increases to the point that existing parking resources are overwhelmed.

5.0 FINDINGS AND RECOMMENDATIONS

5.1 FINDINGS

Based on data collected for this study, evaluation of existing conditions, and the analysis of daily variations in current supply and demand (utilization), Downtown Troy has the existing parking supply to support and continue its renaissance. The surplus of readily available parking, the compact nature of the Downtown core, its strong sense of place, its visually stimulating historic built environment, and its largely intact, walkable street grid make it a destination for new businesses, new residents, and visitors from throughout the Capital District and beyond.

Downtown Troy has a ready supply of both on-street and off-street parking spaces within a reasonable walking distance. Many of the off-street parking facilities, consisting of parking garages and parking lots, are under 50% capacity during peak business hours, weekday evenings, weekend nights, and weekend special events. Many of these same parking garages and parking lots are within a five-minute walk of the heart of Downtown Troy – Monument Square – and are free to park on nights and weekends.

On-street parking spaces have higher percentages of utilization, on average 56.7% utilization, but there is still plenty of on-street capacity to accommodate more vehicles in Downtown Troy. Nonetheless, the majority of participants of the survey completed as part of this study indicated that they were “less than satisfied” with parking in Downtown Troy and the majority noted that they felt parking was a “hurtful” factor in attracting new businesses in Downtown Troy.

While there are localized areas of high demand and overcapacity, small changes to how the parking supply (both on-street and off-street) is managed will alleviate real and perceived parking problems. These changes, among other things, will more evenly distribute parking throughout Downtown Troy, while maintaining the standard for pedestrian connectivity/engagement – the five-minute walk (0.25-mile).

In the long-term, more substantial changes to Downtown Troy’s transportation infrastructure could be completed to take full advantage of the City’s existing assets; most notably its pedestrian-friendly street grid and its compact Downtown core. While this study focused on current supply and demand (utilization), as driving paradigms shift, and as future development progresses, long-term studies should be considered to evaluate inevitable changes in parking.

5.2 RECOMMENDATIONS

Staffing & Organization

Existing Condition

The City of Troy manages its parking through four separate departments: the Troy Treasurer – for payments acquisition of monthly permits, the Troy Police Department and Department of Public Works (street-cleaning team) – for enforcement of parking policies and regulations (i.e., ticketing), and the Parking Department – for management of public information (website), establishment of parking permit fees, and management of publicly-owned garages and off-street parking lots.

Recommended Action

The Parking Department should be the central repository for all the data collected and should make all information readily available on its website. This includes the number, location, purpose, and time of tickets issued, and the number of parking facility permits issued, and how many are being utilized.

In terms of staffing, inter-departmental collaboration is vital to ensure proper record-keeping and to make informed decisions regarding permitting, enforcement, etc. Parking enforcement staff should report to the Parking Department, as it is the department that manages publicly-owned parking facilities and is responsible for establishing parking permit fees. Likewise, the Troy Treasurer's Office should communicate number of permits sold by parking facility to the Parking Department. This will help avoid scenarios in which permits are oversold for a particular parking facility. The City of Troy should explore expanding functionality and level of information provided on the parking website. This would allow users easy access to up-to-date parking information, and to clearly illustrate and explain what parking options are available in Downtown Troy. Alternatively, the City could explore opportunities to integrate these four different functions/departments into one unit –or– contract with an outside, private, entity to manage its parking resources.

Additionally, the City of Troy should consider prioritizing the use of parking facilities for visitors who need a place to park for attending a meeting, patronizing a business, etc. A portion of these facilities need to be delineated for this user group and charged to an hourly usage fee if parked during business hours. In January 2016, the City of Troy Treasurer's Office indicated that were no additional permits available for all but one of the publicly-owned parking facilities (5th Avenue Garage). This conflicts with field observations where only one of the publicly-owned parking facilities was observed to be at full capacity (a substantial number of them were not even at 50% capacity) during peak business hours on Thursday, July 30th and Friday, July 31st. Therefore, if users are buying permits and then not using them, a mechanism for permit revocation should be

explored by the City to ensure those residents, employers, and employees who would like to use them are given the opportunity to do so.

Parking Enforcement

Existing Condition

Survey respondents indicated that enforcement of the parking ordinance is inconsistent and irregular. In addition, respondents indicated that not all vehicles observed the alternating (side of the street) “No Parking” regulations, the two-hour no parking time limit, or the “No Parking Allowed” restriction.

Recommended Action

Enforcement of the parking ordinance must be fair and consistent. The City of Troy should eliminate the 4:00AM to 6:00AM No Parking restrictions on all residential streets, even if this requires a switch in street-cleaning scheduling to another day/time. The 4:00AM to 6:00AM restriction is not resident-friendly. An alternative time could include Mondays or Tuesdays from 9:00AM-11:00AM.

Parking Signage

Existing Condition

The City of Troy’s wayfinding signage (to public parking facilities) is a necessary component of parking that is currently missing. In addition, on-street regulatory signage (e.g., two-hour time limit from 9:00AM to 4:00PM) is not standardized/uniform across Downtown.

Recommended Action

Downtown Troy has readily available off-street parking that is within a five-minute walk of the user’s destination. Unfortunately, there is no wayfinding signage that helps visitors locate these parking facilities. The City of Troy should invest in modern, uniform, easy-to-see wayfinding signage and install the signage on the main arteries that lead to and from Downtown Troy. Designing and installing “place making” signage that helps guide residents to available parking options, and contributes to the community’s overall sense of place, would be a valuable asset for Downtown.

In addition, there are more than ten (10) different types of restricted parking signage in Downtown Troy. This leads to frustration and confusion from users and makes fair and consistent enforcement difficult. Investments should be made to standardize and make uniform the parking signage in Downtown Troy.

Striping, Accessibility, and Parking Meters

Existing Condition

On-street parking demand (utilization) is not evenly distributed throughout Downtown Troy, leaving open on-street parking spaces on certain blocks, while overfilling the on-street parking spaces on others. The lack of pavement striping causes vehicles to be over-parked and double-parked.

Recommended Action

Every on-street parking space in Downtown Troy should be striped to clearly delineate what is a parking space and what is not. Parking spaces should be between 18' and 20' in length.

Parking meters should be installed in additional areas of Downtown. Pay-display meters should be installed to manage every six (6) to fifteen (15) on-street spaces. Location of meters should include high demand areas from Congress Street north to Fulton Street and from 5th Avenue west to River Street. The placement and hourly cost of these meters should be used to effectively distribute demand (utilization) across Downtown. Price and duration of permitted time should be adjusted to market conditions, but in general, meters should be most expensive near Monument Square, and decrease in cost the farther away one travels from the Square. Prices could initially start at \$1.00 per hour price with a 2-hour permitted time limit. Meters should only be in effect Monday through Saturday from 8:00AM to 9:00PM, excluding Sunday and legal holidays. Visitors who wish to park for longer durations should be directed – through clear wayfinding signage to one of the off-street parking garages or lots.

The BID should work with local business, private off-street parking owners, and the City of Troy to offer parking validation (free parking) with a qualifying purchase at shops, restaurants, or events located in Downtown Troy.

On-Street Parking for Residents

Existing Condition

Respondents to the survey, many of whom were also permanent residents of Downtown Troy, indicated that they were having difficulty finding parking near their homes and were interested in establishing a residential permit parking system in Downtown Troy.

Recommended Action

Permanent residents who reside within the study area – Downtown Troy – should not be inconvenienced by the installation of meters. Keeping in mind that a substantial number of Downtown Troy residents park off-street, there still may be some who currently park on-street and whose vehicles will be displaced by the installation of parking meters.

This issue can be addressed in a number ways, including giving publicly-owned off-street garage/lot permit priority to Downtown Troy residents during all-times of the day. The publicly-owned off-street garages and lots were not observed to be at full capacity and, currently, anyone can apply to obtain a permit for daytime parking. Downtown Troy residents may apply for an overnight parking permit – for select garages – but they are not given permit priority for day use.

A significant number of respondents to the survey indicated that they would support the City of Troy establishing an on-street residential permit parking system. The City Council sought State Legislature approval for such a system in 2015 to encompass the Downtown core, roughly bounded by Hoosick Street on the north, Ferry Street on the south, the Hudson River on the west and 6th Avenue on the east. State Legislature approval is still pending. If an on-street residential permit parking system were created and implemented by the City, the residents' permit (hang-tag, window decal, dashboard card, etc.) would allow them to park within specific zones in Downtown Troy. The zones would be based on geographic location and the permit would allow residents to park anywhere within that zone; except for no parking restricted areas, in front of driveways/alleys, fire hydrants, etc. A portion of the spaces would be available to nonresidents for short-term parking.

Off-Street Parking for Employees and General Public

Existing Condition

Off-street parking options are widely available across Downtown. These parking options, however, are limited by several user-related restrictions. This decreases opportunities for visitors, patrons, and residents to experience Downtown and results in higher demand for on-street parking. Also contributing to the imbalance of parking utilization is employees parking on the street, using spaces that would otherwise be available to customers. While off-street parking is available for employee use, the survey indicated 64.9% of employees park on the street.

Recommended Action

The City of Troy should extend availability of its off-street parking facilities to the general public during normal business hours. These off-street facilities should have a blend of permit and hourly spaces to accommodate different users' needs. Employees needing to park would maintain their ability to use permit parking, but would be encouraged to utilize these off-street facilities with their employers potentially subsidizing the associated permit fees.

In addition, the City of Troy may anticipate increased demand for its off-street parking resources as its population grows in Downtown. As people move back to the City's center, partnerships with privately-owned off-street parking facilities should be created to allow for additional shared parking options in these lots and garages. For example, a surface lot adjacent to a bank would be exclusively used for bank customers during normal business hours, but would transition to public parking during off-hours.

Multi-Modal Transportation Network

Existing Condition

Some respondents to the survey indicated that they wanted parking infrastructure viewed comprehensively, as a part of a broader analysis of Troy's overall transportation network. From field observations and collected data, there is a relative lack of balance between modes of transportation.

Recommended Action

Walkability

Downtown Troy is inherently walkable, with most destinations being within a five-minute walk (0.25-mile). In addition, the historic street grid is, for the most part, intact with pe-

pedestrian-scaled blocks situated on relatively flat terrain (in Downtown Troy). Many of the sidewalks are wide and many have mature street trees planted, providing an adequate buffer from traffic. Many of the crosswalks are clearly delineated with brick pavers and wide curb cuts, with truncated domes already installed (ADA accessible). These designs should continue to be uniformly installed in Downtown Troy.

Nonetheless, pedestrian connectivity and Downtown Troy's walkability could be improved by reducing the speed of vehicles traveling its streets to improve bicycle and pedestrian safety. Reduced vehicular speeds will reduce both perceived and real danger to cyclists and pedestrians. This is especially true if the City decides to maintain its one-way streets – which studies have shown are prone to excessive speeds that go beyond the posted limit. The City will need to work with both the County and the State to reduce the limits to appropriate levels for a pedestrian friendly environment, or explore the feasibility of converting some of the one-way streets back to their original two-way configurations. Many of the current one-way streets were created during the 1960s urban renewal era, beginning with a recommendation in the City of Troy's 1962 Comprehensive Plan.

In addition to lowering the speed limit, traffic calming measures could be introduced including speed humps, speed bumps, curb extensions (bump outs), and the narrowing of lanes. These traffic calming measures should be fully explored by the City of Troy in conjunction with its Comprehensive Plan update initiative.

Bike/Bikeshare

Downtown Troy has an optimal street grid for biking, recreation, and commuting. To accommodate current users, and create new users, additional facilities should be added. The City should install sheltered bike racks at all of the publicly-owned parking lots and install bike racks at all of the publicly-owned parking garages. Bike racks should be installed on the sidewalks throughout Downtown Troy and at City parks. The City should also explore the creation of a bike-share system. Financial incentives should be given to City employees who bike to work and the Troy BID should work with local businesses to offer incentives to their employees who choose to bike to work. This would result in fewer cars on the road (which equals more available parking) and a healthier more productive work force. Excellent examples of bikeshare systems can be seen in cities such as Buffalo, Denver, and Chattanooga.

Carshare

Downtown Troy should partner with other municipalities in the Capital District to explore the feasibility of an interconnected carsharing system.

Dedicated On-Street Parking for Disabled Persons

Existing Condition

The existing on-street parking for disabled persons is unbalanced and several existing spaces are poorly configured. During field collection periods, trash cans, newspaper stands, and electrical panel boxes were observed preventing passengers from safely disembarking from a wheelchair van/bus.

Recommended Action

Add additional accessible/handicap on-street parking spaces to Downtown and use ADA off-street requirements as a guide for the number of on-street spaces. In addition, all new and existing spaces should meet ADA geometry requirements ensuring that parking spaces are long enough to accommodate a wheelchair accessible van/bus and a safe place for passengers to disembark.