



MONROE AVENUE PARKING & MOBILITY STUDY

FINAL REPORT
January 2017

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EXECUTIVE SUMMARY

The Monroe Avenue Parking and Mobility Study was initiated to provide a comprehensive assessment of existing parking and mobility conditions along the Monroe Avenue corridor from the former Inner Loop to Culver Road in the City of Rochester in order to improve and enhance the overall mobility options, parking availability, walkability and transportation choices available to the public within the study area. The impetus for the study related to concerns expressed by local residents, business owners, and visitors of the corridor over the last several years. These stakeholder concerns focused on a number of parking and mobility issues, including the perceived lack of available parking supply, current parking enforcement practices and the competition between area residents and business patrons for on-street parking spaces. The City of Rochester determined that a comprehensive analysis was necessary to identify the origin of those concerns and whether they were caused by a shortage of parking and mobility options or were the result of other factors. Financial assistance for the preparation of this report was provided by the Federal Highway Administration and Federal Transit Administration through the Genesee Transportation Council (GTC) as a part of the Unified Planning Work Program (UPWP).



Upper Monroe On-Street Parking, Photo Credit: Fisher Associates

This study provides a comprehensive assessment of existing parking and mobility conditions, guided by extensive outreach to the public and stakeholders. It also includes an inventory of parking and mobility conditions, assessment of current/future parking demand, assessment of needs and opportunities, recommendations for improving parking and mobility conditions, and an implementation action plan.

Public and Stakeholder Engagement

To more clearly define the concerns expressed by the community and to guide the study's recommendations and implementation action plan, a thorough online/print survey was developed. The survey resulted in more than 400 responses and included insight into the modes, experiences, concerns, and suggestions for improvements for both vehicular and alternative modes of transportation. Key findings from the public survey included:

- Most visitors to the corridor are coming for dining, bars/entertainment and shopping.
- Vehicular trips account for the highest mode of travel, followed by walking and cycling.
- A majority of respondents are in favor of shared-use parking throughout the corridor.
- Metered/Pay stations was the least desirable solution.
- Location, personal safety and convenience were the top three answers with regards to where the survey respondents decided to park.
- Meigs Street to Interstate 490 is an area with the highest difficulty in finding a parking spot.

As part of this study a Project Advisory Committee (PAC) was formed and included members of several public agencies and non-governmental organizations to participate and provide input and guidance throughout the Study. PAC representatives included several departments from the City of Rochester,

Genesee Transportation Council, Rochester Regional Transportation Authority, Monroe County Department of Transportation, New York State Department of Transportation, Upper Monroe Neighborhood Association, Monroe Village Taskforce and Monroe Avenue Merchants Association.

Stakeholders identified by the City and the PAC were also interviewed to provide greater insight into the needs and opportunities within the corridor and supplement the survey results. Feedback from these stakeholders included four key elements: enforcement, parking supply and utilization, maintenance of parking and mobility infrastructure, and signage. Key themes from stakeholders included: lack of parking turnover in front of commercial businesses, shortage of parking enforcement and unclear signage within the study area.



Public Event #2 at Park Avenue Festival, Photo Credit: Fisher Associates

In addition to the public survey, two public outreach sessions and two public meetings were held during the study process to present data/findings and gather feedback and input. The first public outreach session was held with the Monroe Avenue Merchants Association and the second session was held during the Spokes & Ink Bike and Poster Festival. These sessions provided input on future public engagement opportunities, allowed for stakeholder input on the existing conditions analysis, and solicited feedback on issues, concerns and solutions affecting parking and mobility within the corridor. The two public meetings, one held at the Monroe Square Trillium Health Facility on Monroe Avenue and the other at the Park Avenue Festival, provided additional opportunities for stakeholders to learn about the study's findings and weigh in on its recommendations and implementation action plan.

The second public meeting offered members of the community the opportunity to vote on potential study recommendations. Examples of these recommendations included; shift to a customer friendly approach for parking fines (incremental parking fines), define on-street spaces with "tick" pavement markings and review/expand transit frequency throughout the

corridor.

Parking and Mobility Inventory

To provide a foundation of information needed for a comprehensive analysis of parking and mobility, an inventory was conducted that included a review of past planning studies, existing land use and development patterns, City Zoning Code parking requirements, and documentation of vehicular, transit, and bicycle/pedestrian conditions. Documented vehicular conditions included parking supply, ownership, rates, regulatory signage, destination and wayfinding signage, road markings, traffic circulation/volumes, road geometry, and parking enforcement. Documented transit conditions included the available services, routes, and stops. Documented bicycle/pedestrian conditions included bicycle routes/markings, bicycle parking, and the condition and availability of crosswalks and sidewalks. The assessment of the parking and mobility inventory is presented in the needs and opportunities assessment section. Inconsistent/confusing on-street regulatory signage and unbalanced parking supply and demand were two examples that resulted from the inventory phase.

Study Area

A project study area was established and extended from the former Inner Loop on the north-west to Culver Road on the south-east, and approximately 500 feet on either side of Monroe Avenue. This 500-foot offset was based on input from City of Rochester's Bureau of Planning and Zonings and precedents from similar corridor parking/mobility studies. Four sub-areas within the study were noted and reviewed in greater detail with regards to parking and mobility. These sub-areas included the Marshall Street, South Goodman Street, Canterbury Road and Belmont Street intersections.



Graphic 1 – Project Study Area

Parking Supply and Demand

Parking supply within the study area was documented for location, capacity, and regulation through information collected during field visits and through geographic information system data. (See Table 1 –Total Parking Supply on next page). Parking demand (utilization) was also observed to document and analyze hourly and daily trends.

Several time periods of the day and days of the week were chosen to provide comparable data. Counting times were chosen for two periods during the weekday/weekend daytime and the weekday/weekend evening time.

The analysis of parking utilization counts included several different levels of assessment, from the macro scale at the study area level to the micro scale at the street-by-street level. To assess if utilization was too high compared to optimal thresholds, a utilization threshold of 85% for on-street parking and 90% for off-

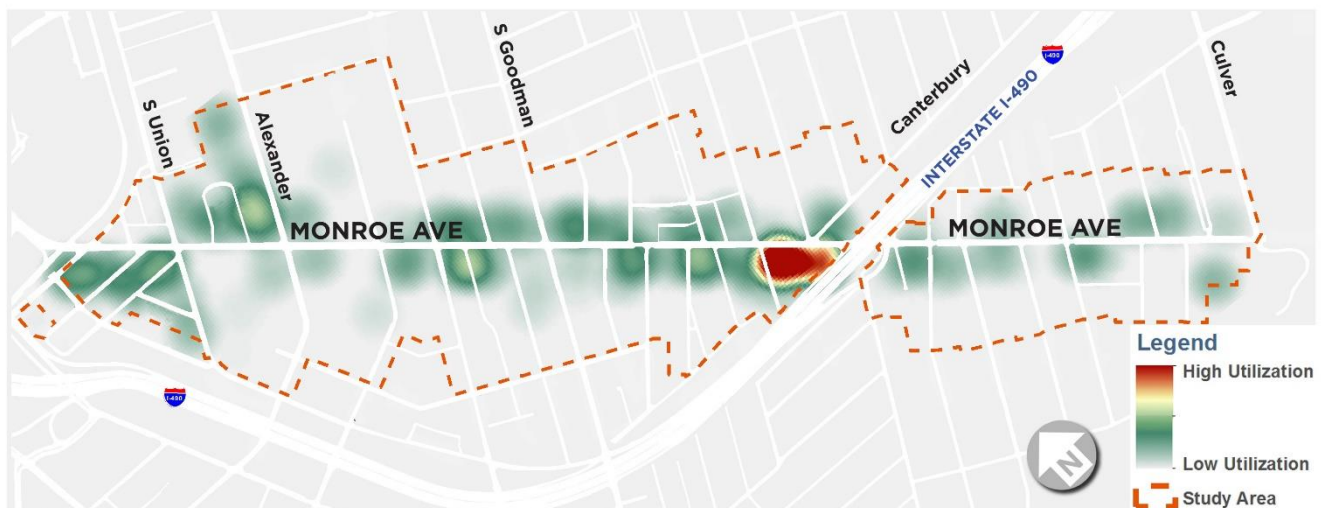
| Table 1 — Total Parking Supply | | |
|--------------------------------|--------------|-------------|
| | Spaces | Percent |
| On-Street | 1,591 | 27% |
| Off-Street | 4,402 | 73% |
| <i>Total</i> | 5,993 | 100% |

street parking was used. These percentages were utilized based on industry standards. Key observations include:

Study area: Overall, on-street parking utilization is lowest during the weekday day time, and highest during the weekend evening time. Both on-street weekend evening counting periods reached 75% utilization. Off-street utilization is highest during the weekday daytime, but was observed far below the threshold of 90% utilization.

Subareas: Four subareas were defined that represent 5-minute walking distances from major intersections with clustered development. Similar to the evaluation at the study area level, all four subareas showed on-street utilization highest during the weekend evening counting periods. The highest on-street utilization occurred within the South Goodman Street and Monroe Avenue Subarea during both weekend evening counting periods, at just above 80%. The highest off-street utilization occurred within the Canterbury Road and Monroe Avenue Subarea, as indicated in red in Graphic 2 below. Six out of the eight counting periods showed observed utilization above 40% for off-street utilization. However, all subareas across all counting periods showed utilization significantly below the threshold of 90%.

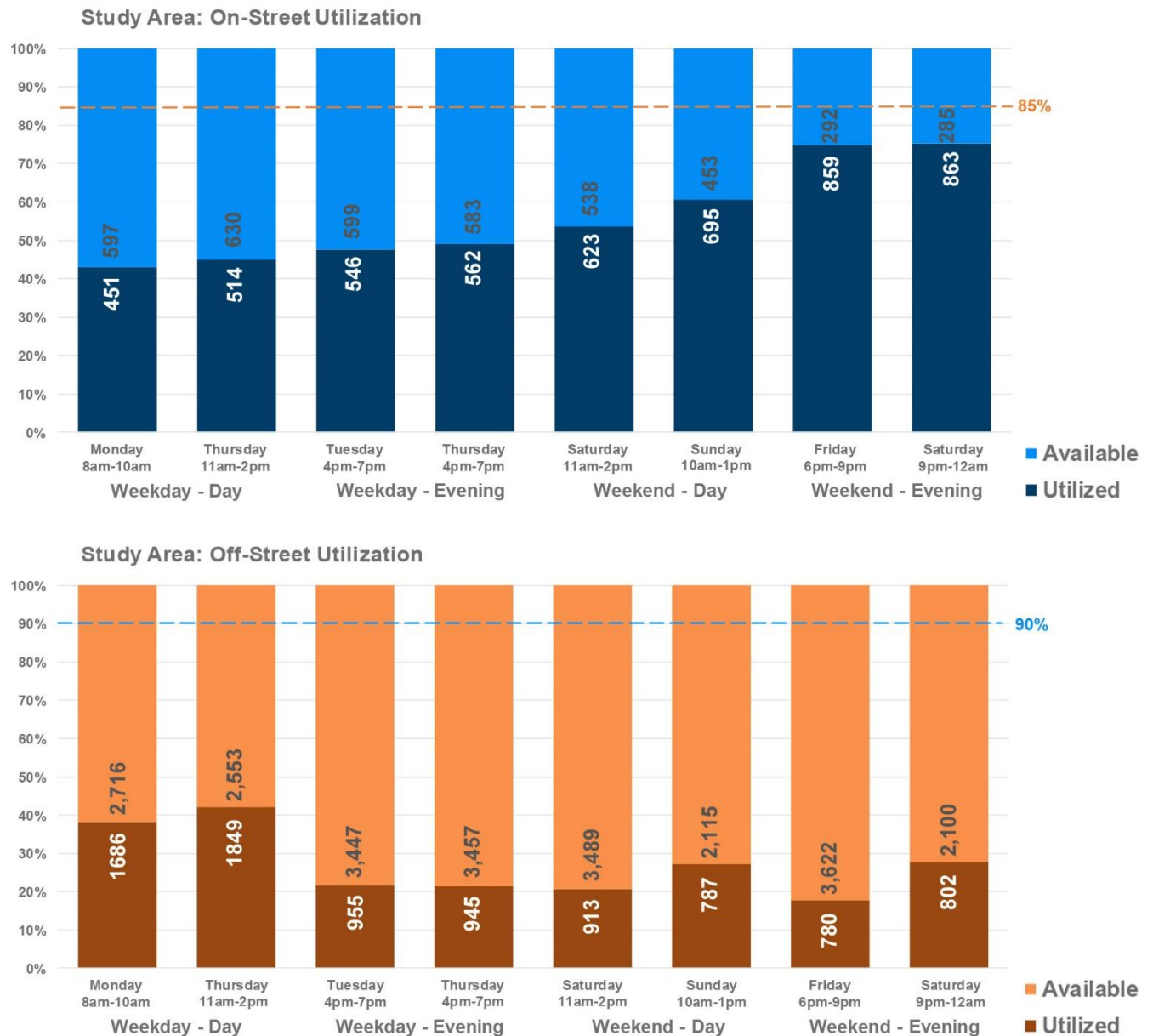
- **Street-by-street:** When examined at the study area and subarea levels, parking utilization never



Graphic 2 – Heat Map Example

exceeded the thresholds of 85% (on-street) or 90% (off-street) utilization. However, observed data showed that across counting periods some roads and off-street parking lots exceeded their respective thresholds. The highest utilization for on-street parking was during the weekend evening counting periods. Several streets throughout the study area showed utilization above 85% and some streets over capacity (illegally parked vehicles). However, these streets and areas had available parking within a 1-3 block walk.

The following two graphs illustrate on-street and off-street utilization profiles created to evaluate parking demand.



The parking supply and demand analysis also included a future parking analysis. The analysis was completed to determine the extent to which the study area could accommodate potential future infill development. The analysis utilized existing zoning guidelines and the evaluation for infill development potential in order to create a series of land use concepts. The concepts show that through careful planning and development, additional development and parking facilities could be accommodated within the corridor.

Needs and Opportunities Assessment

Based on the SWOT analysis, a series of assessments provided a concise framework for the development of recommendations needed to improve parking and mobility and encourage the use of alternative transportation. The following assessments represent the key internal and external factors affecting parking and mobility within the study area.

- ## F | Executive Summary

10. Infrequent parking turnover is inhibiting visitors and patrons
11. Mixed perceptions on City Zoning Code parking requirements and their impact on business expansion / new development

Parking and Mobility Recommendations & Implementation Action Plan

Through careful data collection, analysis, public input, and stakeholder feedback, a series of comprehensive recommendations that seek to address the concerns noted by the public and the findings of the study were developed. The recommendations are grouped by management of existing facilities, demand, and capacity, as follows:

Existing Facilities Management

- | | |
|--|---|
| Short-term  | <ol style="list-style-type: none"> 1. Reduce variety of time limit and time span regulations so drivers can quickly understand regulatory signage. 2. Install additional signage to cover areas with missing or incomplete signage so drivers can readily see parking requirements. An example of simplified on-street signage from the City of Los Angeles can be viewed to the left. 3. Install wayfinding and destination signs for public parking facilities to direct vehicles to these facilities and provide or clarify applicable regulations and restrictions. 4. Update the City's parking website to include public parking facilities within the study area. 5. Shift parking enforcement to a customer-friendly approach. |
| Mid-term | <ol style="list-style-type: none"> 6. Streamline alternating parking regulations to be more user friendly. 7. Install parking technology in high demand commercial- retail areas. 8. Create a neighborhood parking benefit district to reinvest meter and enforcement funds. |
| Long-term | <ol style="list-style-type: none"> 9. Expand parking technology. |

Demand Management

- | | |
|-------------------|---|
| Short-term | <ol style="list-style-type: none"> 10. Improve transit users' experience and comfort through added amenities at each transit stop. 11. Improve pedestrian access, safety, and experience that promotes walking and encourages users to seek parking beyond adjacent facilities. 12. Expand bicycle facilities to accommodate current users and encourage future users. |
| Mid-term | <ol style="list-style-type: none"> 13. Expand transit service routes and frequency to accommodate current users and encourage more transit trips. 14. Evaluate the impact and effectiveness of the county-wide Bus Stop Optimization (Initiative through RTS) effort on the Monroe Avenue Corridor. 15. Add a neighborhood shuttle service. |
| Long-term | <ol style="list-style-type: none"> 16. Expand High-Capacity Transit (HTC) options as demand increases. |

Capacity Management

| | | |
|------------|-----|--|
| Short-term | 17. | Continue routine parking utilization counts to track progress and seasonal fluctuations. |
| | 18. | Expand on-street parking access for mobility impaired users. |
| | 19. | Facilitate the creation of shared-parking lots between private owners. |
| | 20. | Expand availability of public off-street parking. |
| Mid-term | 21. | Adjust travel lane geometry and remove unnecessary lanes (where feasible). |
| | 22. | Evaluate parking-related requirements and restrictions within the City Code. |
| | 23. | Explore acquisition of private lots for the conversion to public lots. |
| Long-term | 24. | Convert existing parking lots to structured / stacked parking. |

As the study indicates, the implementation of these recommendations would best be accomplished through a coordinated effort, spearheaded by the City of Rochester in cooperation with other public agency stakeholders. As a first step in implementing these recommendations, a committee should be created to be responsible for coordinating implementation activities and evaluating the effectiveness of the short, mid and long-term strategies. The action plan provides timeframes and responsible party/technical resources for each recommendation. Immediate action items include the following; install way finding signs and destination signs at public parking facilities, continue to add bicycle amenities (additional lanes, sharrows, bicycle parking and bicycle shelters) along the corridor and change/modify and install new on-street regulatory signage.

In conclusion, the study encompasses a series of implementable recommendations and strategies developed to improve the quality of parking and mobility facilities for area residents, businesses and visitors while encouraging the use of alternative transportation. These recommendations, when implemented, will help alleviate the parking and mobility pressures felt within the corridor while embracing Monroe Avenues highly desirable, vibrant and eclectic sense of place.

1.0 PURPOSE + APPROACH

For the last several decades, residents, business owners and visitors, have expressed concerns regarding existing parking and mobility conditions in the Monroe Avenue corridor, extending from the former Inner Loop to Culver Road in the City of Rochester.

To address these concerns, the City's Bureau of Planning & Zoning (BPZ), Department of Neighborhood & Business Development, and the Department of Environmental Services engaged a number of neighborhood groups and business association representatives over the years focusing on the availability of parking and any negative impact on surrounding businesses and residents. In turn, the City explored the implementation of a number of projects to improve parking and mobility conditions in the corridor including street improvements, construction of shared parking lots, revisions to site plan review standards, and increased code and parking enforcement.



This Parking and Mobility Study (the Study) was initiated by the BPZ to better understand existing conditions, analyze supply and demand, and provide recommendations and implementation strategies to improve conditions in the corridor. An important component of this study included the engagement of stakeholders and the public throughout the study process.

The BPZ engaged a number of public agencies and non-governmental organizations to participate in the Project Advisory Committee (PAC) to provide input and guidance and assist with key decisions throughout the Study.

The PAC is comprised of representatives from the following entities:

- City of Rochester
 - Bureau of Planning & Zoning (BPZ)
 - Department of Neighborhood & Business Development (NBD)
 - Department of Environmental Services (DES)
 - Southeast Neighborhood Service Center (NSC)
 - Bureau of Parking
- Genesee Transportation Council (GTC)
- Rochester Genesee Regional Transportation Authority (RGRTA)
- Monroe County Department of Transportation (MCDOT)
- New York State Department of Transportation (NYSDOT)
- Upper Monroe Neighborhood Association (UMNA)
- Monroe Village Taskforce (MVT)
- Monroe Avenue Merchants Association (MAMA)

- Fisher Associates (the Consultant)

PAC meetings were held during each phase of the study (study initiation, inventory, assessments/recommendations and implementation strategies). PAC members were asked to provide input on a range of topics including public outreach efforts, survey questionnaire, inventory and analysis, development of recommendations as well as implementation strategies. Meeting minutes for each PAC meeting can be found in Appendix A.

The study area extends from the former Inner Loop on the north-west to Culver Road on the south-east, and approximately 500 feet on either side of Monroe Avenue. This 500-foot offset was based on BPZ's input and precedents from similar corridor parking/mobility studies. See Map 01 for the study area boundary.

The primary goals of the Study were to provide implementable recommendations to improve the function of parking facilities along the Monroe Avenue corridor for residents, businesses, and visitors while encouraging the use of alternative transportation. To accomplish these goals, the following objectives were outlined for the Study:

- Inventory current public and private, on-street and off-street, parking supply
- Inventory parking demand utilization rates
- Project future parking demand
- Evaluate current parking regulations and enforcement policies
- Evaluate current land use and development patterns
- Evaluate adequacy of existing public transit services and amenities
- Seek and gather input from area residents, business owners and other community stakeholders
- Evaluate regulatory parking requirements set forth in the City's Zoning Code
- Evaluate quality and conditions of existing parking infrastructure
- Identify parking needs and deficiencies
- Develop short- and long-term strategies to improve function of parking facilities and encourage use of alternative transportation

The Monroe Avenue Parking/Mobility Study is listed as a federally funded transportation planning activity in the GTC 2016-2017 Unified Planning Work Program (UPWP). As a federally funded planning activity, the Study "must reflect the priorities and direction of the region as represented by the goals and objectives of the *Long Range Transportation Plan (LRTP) for the Genesee-Finger Lakes Region 2035*". The UPWP lists the following LRTP goals and objectives as being accomplished by this Study:

- Supports Economic Vitality
- Increases Safety & Security
- Recognizes Local Priorities
- Minimizes Lifecycle Costs and Maximizes Benefits
- Optimizes the use of Existing Infrastructure
- Encourages Public Participation
- Improves Information for Public/Private Decision Making

To accomplish the outlined objectives, an initial step included review of relevant policy documents and codes, followed by public outreach (survey, stakeholder interviews, public meetings), inventory of existing conditions, analysis of current and future supply and demand, identification of needs and opportunities, and formulation of parking/mobility recommendations.

The following briefly summarizes the tasks completed for the Study:

Public Survey

The public survey was developed through discussions with and input from the BPZ and PAC. The on-line survey was administered via Survey Monkey and a print version was distributed to the following three locations within the study area: Monroe Branch Library, YMCA, and Blessed Sacrament Church.

Stakeholder Interviews

The BPZ and PAC identified a list of 39 key stakeholders to engage early in the study process. They included business owners/managers, property owners, organizations, neighborhood associations, public agencies, public facilities, and places of worship. A questionnaire that expanded upon the public survey was prepared and provided to the stakeholders.



Public Meetings

Public meetings were held at key stages of the Study process to both present data/findings and to gather feedback and input. The first public meeting presented the goals, process, and objectives of the Study. This meeting was also used to publicly present initial data gathered and obtain feedback from the community. Representatives from the BPZ, PAC, and 16 members of the community were in attendance. A second public meeting was held to present and gather public feedback on parking demand, needs and opportunities assessment, and draft management strategies.



Parking/Mobility Inventory

An inventory of existing conditions was conducted between January and March 2016. Data and information collected included on-street and off-street parking capacity, locations, restrictions, regulations, fees, and signage. While off-street parking data was limited to publicly- and privately-owned facilities, off-street data associated with residential uses, with the exception of apartment buildings, was not collected as part of the Study. Data and information for bus

routes, bus stops, bike lanes, bike racks, and crosswalks were also collected to evaluate mobility conditions.

Current Demand

Many factors influence parking demand and utilization rates. Variations in utilization occur hourly, daily, weekly, and monthly. To determine the current level of on-street and off-street parking demand, parking counts were conducted during peak periods on weekdays and weekends. These counts were analyzed for the Study area as a whole, defined sub-areas or activity modes, and by individual streets to determine whether a surplus or deficit existed during peak periods.

Future Demand

With increased development interests in the neighborhood, future parking demand will change depending on the amount of development that can occur. To determine the extent to which the study area can accommodate potential future development, infill development concepts were created. These concepts considered traditional neighborhood design, zero setbacks, pedestrian oriented/scaled development, transit proximity, and parking. The resulting concepts shows mass, scale, orientation, and setback in relation to the neighborhood, and show parking required by the current Zoning Code.

Needs + Opportunities

Based on stakeholder and public input, the existing conditions inventory, and the supply and demand analysis, a set of needs and opportunities were developed. These needs and opportunities followed a SWOT analysis approach (Strengths, Weaknesses, Opportunities, Threats) which in turn formed the basis for the Study's parking and mobility recommendations.

Parking + Mobility Recommendations

The parking and mobility recommendations were developed to balance the input received through the public survey, stakeholder interviews, PAC and public meetings, with the data collected in the field, supply and demand analysis, and the needs and opportunities assessment. The recommendations were also developed to be consistent with the community's goals as expressed in the previous planning efforts. As parking and mobility issues are common across municipalities, industry standards and best practices were also evaluated and applied to local conditions.

Implementation Strategies

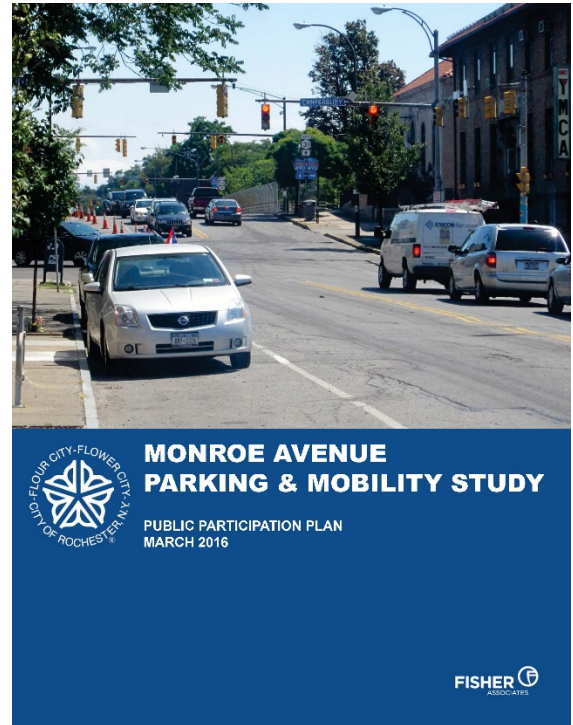
To accomplish the recommendations that seek to provide equitable access to transportation amenities and increase efficiency in parking facilities, implementation strategies were developed. These strategies focus on leveraging the existing assets within the neighborhood with the responsible parties, technical resources, and financial resources needed to bring the parking and mobility recommendations to fruition.

2.0 PUBLIC ENGAGEMENT + PARTICIPATION

2.1. Public Participation Plan

Early in the study process, the Public Participation Plan (PPP) outlined the methods the BPZ and PAC would use to ensure that adequate opportunities for meaningful engagement were provided to stakeholders and the general public. The PPP also formalized the BPZ's and PAC's commitment to gather meaningful input and engage the public throughout the Study process. This input was utilized in the development of the Study's recommendations and implementation strategies. While the PPP provides a framework for public participation, it also is a dynamic and flexible tool. As such, it was developed with the flexibility to adapt, as necessary, to any changing needs that could occur over the course of the Study.

As outlined in the PPP, the following public engagement methods were utilized for the Study:



PAC Meetings

Four (4) PAC meetings were held over the course of the Study. The first PAC meeting established the initial framework for the Study, outlined methods for gathering input, established a preliminary list of stakeholders, and developed content for the online survey. The remaining three PAC meetings included presentations and discussions regarding the inventory and analysis, assessments/recommendations and implementation strategies.

Public Survey

A public online survey was developed early in the study process to obtain input on parking and mobility issues. The survey was developed by the City, PAC and Consultant team and was accessible online via Survey Monkey and in paper form at key destination points along the corridor (e.g., YMCA, Monroe County Library).

Stakeholder Interviews

Stakeholders were engaged through face-to-face and phone interviews to discuss their concerns and ideas regarding parking and mobility within the corridor. A list of stakeholders that participated in the Study can be found in the PPP.

Public Meetings and Outreach

Two public meetings were held over the course of the Study and included presentations from the project team and interactive feedback from the participants. The first public meeting presented existing conditions/inventory, field data and survey results gathered to-date. The second public meeting presented the assessment and recommendations supported by the previous phase. Public outreach included attendance at a Monroe Merchants Association meeting and the Spokes and Ink festival. Members of the PAC and Consultant Team presented project information, goals, and obtained feedback. A final presentation to the Genesee Transportation Council Planning Committee was given to present study findings, recommendations, and to obtain approval and acceptance of the document to close out the project.

Web-Related

The Consultant team worked closely with the BPZ to ensure project-related materials were posted and updated regularly on the City's website. All materials generated as part of the Study can be accessed at <http://www.cityofrochester.gov/MonroeAvenueParkingStudy>

Social Media

A Facebook page was created for the project and utilized as the primary social media outlet tool throughout the Study to encourage public participation in the survey, promote public input opportunities and meetings, and provide key project updates throughout the course of the study.

The Public Participation Plan is provided in Appendix B.

2.2 Public Survey & Results

The public survey was developed through discussions with and input from the BPZ and PAC. The survey was administered on-line via Survey Monkey and a print version was distributed to the following three locations within the study area: Monroe Branch Library, YMCA, and Blessed Sacrament Church. The survey was available from February 25, 2016 to May 1, 2016. 464 responses were received through Survey Monkey, and 10 responses were received from the distributed print version. Below is a summary of the survey results. Detailed survey results for each question can be found in Appendix C.

Key Findings

- Majority of the people who frequent the corridor are coming for dining, bars/entertainment and shopping.
- Automobile is the prominent mode of travel in the corridor, followed by walking and cycling.
- An overwhelming majority of respondents are in favor of shared use parking throughout the corridor.
- Metered/Pay stations was the least desirable solution for future parking and mobility solutions.
- Location, personal safety and convenience were the top three answers with regards to the where the survey respondents decided to park.
- Meigs to Interstate 490 was seen as the area with the highest difficulty in finding a parking spot.

Please note: Several respondents did not answer the survey in its entirety. Also, several questions gave the respondent the ability to choose multiple answers. Percentages and number of respondents are listed for the statistics below.

Type of Respondents

- 6.0% (28) Business owners
- 14.1% (63) Working near Monroe Avenue
- 56.4% (256) Residents
- 92.2% (428) Visiting near Monroe Avenue

Business Owner Responses

Of the 464 survey respondents, 28 indicated they own a business near Monroe Avenue.

1. When asked if business owners provide parking for employees and/or customers:
 - 42.3% (11) Neither
 - 42.3% (11) Customers & employees
 - 7.7% (2) Employees only
 - 7.7% (2) Customers only
2. When asked where employees park:
 - 53.8% (14) On-street
 - 69.2% (18) Off-street
3. When asked where customers park:
 - 73.1% (19) On-street
 - 69.2% (18) Off-street
4. When asked what alternative modes are provided/promoted:
 - 46.2% (12) Don't provide/promote any alternative modes
 - 34.6% (9) Have bike racks
 - 19.2% (5) Post a bus schedule
 - 0% Carpool program
 - 0% Electric car charging station
 - 15.4% (4) "Other" responses included: bike parking in building, 15 minute parking in front of building, and a bike rack provided by the Monroe Avenue Merchants Association.
5. When asked if their business would be interested in a neighborhood shuttle service:
 - 34.6% (9) At least interested
 - 34.6% (9) Not interested
 - 30.8% (8) Neutral/don't know
6. When asked if their business would be interested in a shared parking or community lot:
 - 69.2% (18) At least interested
 - 19.2% (5) Not interested
 - 11.5% (3) Neutral/don't know

7. When asked if additional parking were to become available (public or private), would their business consider expanding:
 - 38.5% (10) 'Yes'
 - 30.8% (8) 'No'
 - 30.85 (8) Neutral/don't know

Employee Responses

Of the 464 survey respondents, 63 indicated they work at a business near Monroe Avenue.

1. When asked if off-street parking is provided by their employer:
 - 58.1% (36) 'Yes'
 - 41.9% (26) 'No'
2. When asked if their employer promotes/provides alternative modes/methods of transportation:
 - 48.4% (30) None
 - 41.9% (26) Bike racks
 - 24.2% (15) Posted bus schedule
 - 4.8% (3) Electric car charging station
 - 1.6% (1) Carpool program
 - 16.1% (10) "Other" responses included: secure biking, and discounted bus tickets

Resident Responses

Of the 464 survey respondents, 256 indicated they are a resident living near Monroe Avenue. Of the 396 respondents who provided zip code data, 249 respondents indicated they live in the two zip codes located in the Study area. It should be noted that portions of these zip codes extend beyond the Study area.

1. 78.6% (198) indicated their residence has off-street parking
2. When asked if their residence had adequate off-street parking:
 - 56.7% (143) 'Yes'
 - 33.3% (84) 'No'
 - 9.9% (25) Neutral/don't know
3. Respondents were near evenly split when asked the frequency of parking issues in their neighborhood:
 - 43.7% (110) Experience problems frequent to always
 - 45.2% (114) Experience problems seldom to never
 - 11.1% (28) Neutral/don't know

Visitor Responses

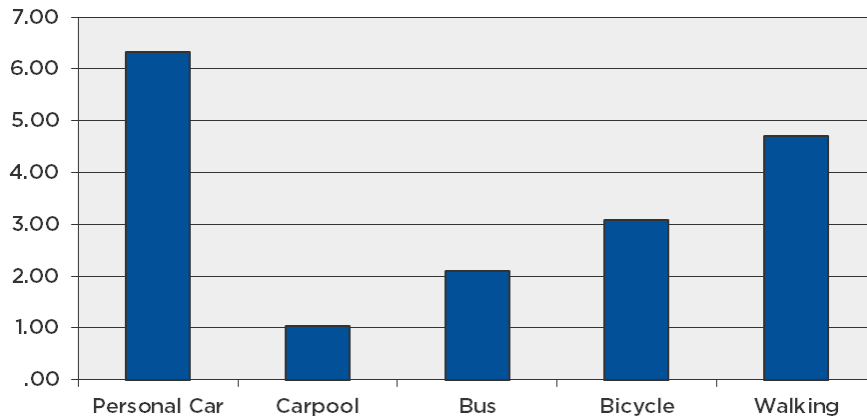
Out of the 464 respondents, 428 indicated they visit the corridor.

1. Respondents were asked to indicate where they visit:
 - 93.9% (415) Dining and bars
 - 73.8% (326) Shopping
 - 27.4% (121) Tourism/attractions
 - 10.9% (48) Medical
 - 17.6% (78) “Other” responses included: places of worship, gas stations, Library, service businesses, banks, friends/family, fitness establishments, community meetings, and dog care.
 - 3.2% (14) Don’t visit
2. When asked where they park when visiting:
 - 51.6% (221) Park on-street
 - 27.1% (116) Walk/bike
 - 18.3% (78) Park off-street
 - 3.0% (13) Take the bus

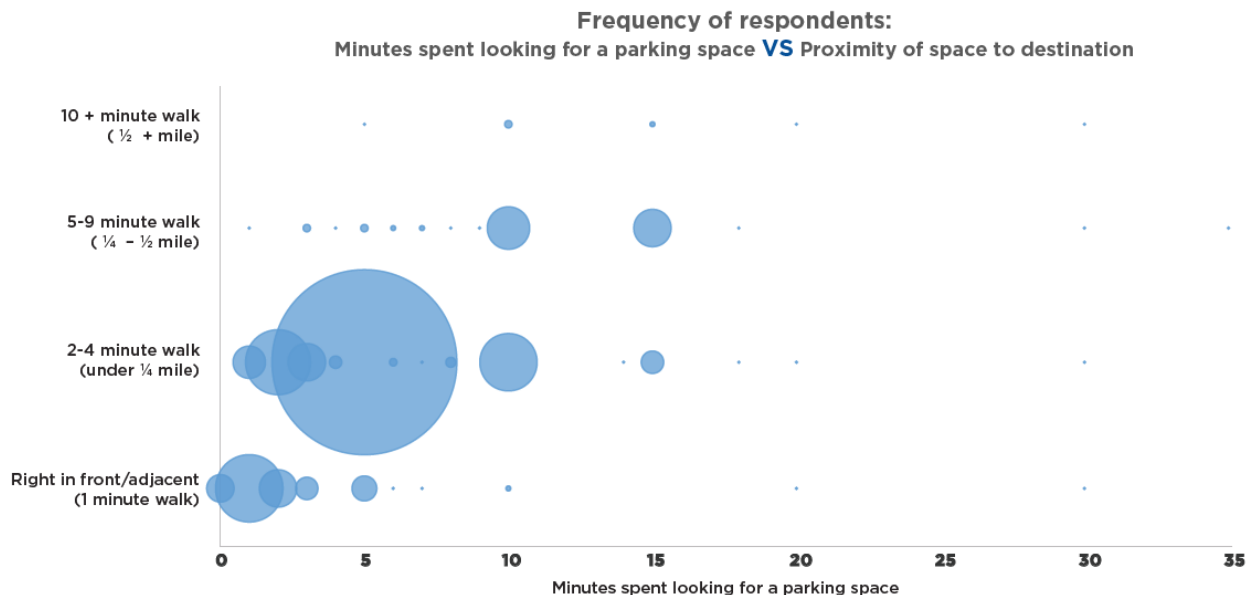
General Use Questions

1. When asked time periods respondents travel to the corridor, responses were near evenly split between all categories:
 - 58.4% (237) Weekday (8am-5pm)
 - 75.1% (305) Weekday evening (5pm-midnight)
 - 70.9% (288) Weekend (8am-5pm)
 - 70.9 (288) Weekend evening (5pm-midnight)
 - 6.7% (27) ‘Other’ responses included: specifically in the morning, after rush hours, all the time, nights, and Sunday only.
2. When asked how many days per week respondents travel to the corridor:
 - 17.7% (72) Less than 1 day per week
 - 23.2% (94) 1-2 days per week
 - 26.1% (106) 3-5 days per week
 - 33.0% (134) 6-7 days per week

- Respondents were asked to indicate the number of trips per week they make by various modes. The following is an average of responses for each mode.

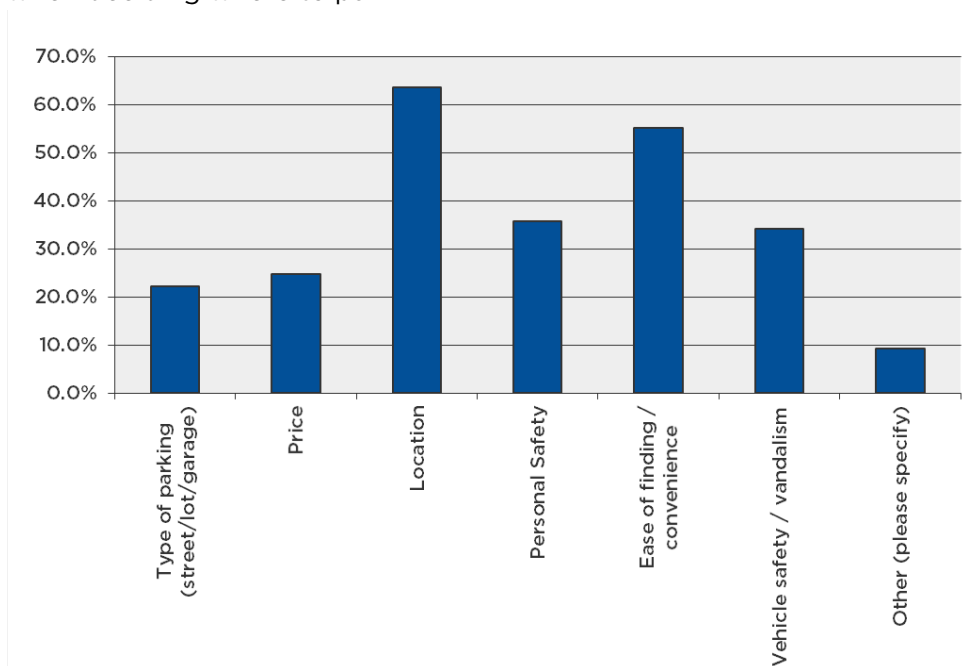


- One survey question regarding 'time spent looking for a space,' and another question regarding 'proximity of space to destination,' were evaluated together. The majority of respondents indicated they spent 5 minutes or less looking for a space that is within a 4 minute or less walking distance to their destination. This can be seen in the graph below. Each circle in the graph is proportional to the number of respondents. Also, the center of each circle represents the time and walking distance indicated by the respondents. The largest group of respondents (74) indicated they spend 5 minutes looking for a space that is within a 2-4 minute walk to their destination. It is notable that some respondents indicated they are willing to spend more time looking for a parking space than the time it would take walking to their destination.



Facility Questions

1. When asked if parking/mobility areas/locations were easy to find:
 - 44.1% (175) At least somewhat hard to find
 - 32.0% (127) At least somewhat easy to find
 - 23.9% (95) Neutral
2. When asked if there are adequate biking facilities within the corridor:
 - 16.6% (66) 'Yes'
 - 45.1% (179) 'No'
 - 38.3% (152) Don't know
3. When asked if there are adequate bus shelters:
 - 6.0% (24) 'Yes'
 - 46.1% (183) 'No'
 - 47.9% (190) Don't know
4. When asked if sidewalks were in good condition:
 - 56.9% (226) 'Yes'
 - 33.2% (132) 'No'
 - 9.8% (39) Don't know
5. Respondents were asked what they consider to be the most important consideration when deciding where to park:



- 9.3% (37) “Other” responses included: place with bike parking facility, proximity when traveling with children, lighting, where they won't get a ticket, and wherever available.

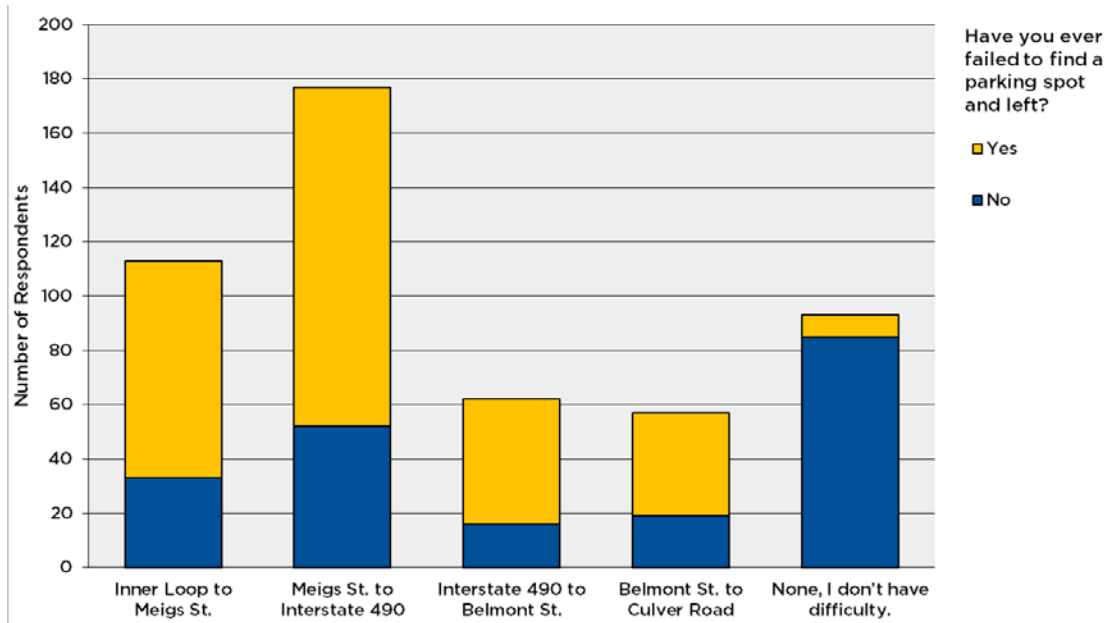
Experience Questions

1. When asked how satisfied they are with the parking/mobility system:
 - 44.4% (169) At least somewhat not satisfied
 - 32.5% (124) At least somewhat satisfied
 - 23.1% (88) neutral
2. When asked if they have ever failed to find a parking spot and just left:
 - 42.5% (162) 'Yes'
 - 44.1% (168) 'No'

Analyzed with the question asking time spent looking for a parking space:

- Yes respondents spent an average of 6.8 minutes
- No respondents spent an average of 3.8 minutes

Analyzed with the question asking **areas they have experienced difficulty finding a space:** (further detail showing all responses to this question is later in this section)

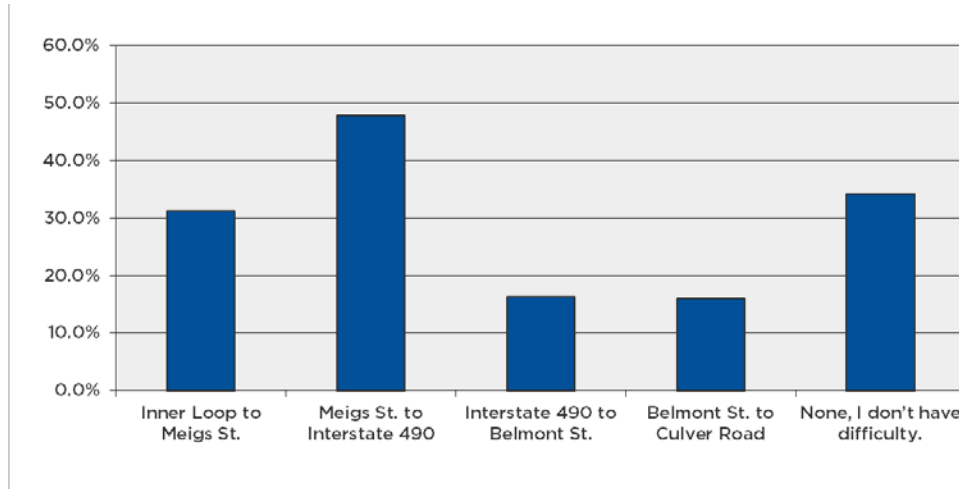


3. When asked if they have ever experienced problems parking during the winter months:
 - 42.0% (160) Reduction in capacity
 - 19.2% (73) Takes longer to find a space
 - 9.7% (37) Ease of parking access
 - 10.0% (38) Don't know
 - 19.3% (73) 'Other' responses included: problems with sidewalk clearance, biking, cars left for long periods of time, plows using parking for holding snow, and difficulty getting on the bus.
4. When asked how often they observe parking regulations being followed:
 - 55.1% (210) At least somewhat frequently
 - 22.3% (85) At least somewhat infrequently
 - 22.6% (86) Don't know

5. When asked how often they observe parking regulations being enforced:

- 37.8% (144) At least somewhat frequently
- 32.8% (125) At least somewhat infrequently
- 29.4% (112) Don't know

6. When asked areas they have experienced difficulty finding a parking spot:



7. As an open-ended question, respondents were asked **what they view as the greatest parking/mobility issue** within the corridor. Themes for the 194 respondents included:

On-Street Parking

- Over-built street could remove a lane for parking
- Alternating parking from 6-7 that requires you to move your car shortly after arriving home from work, or parking illegally on the side that will be switched. Often leads to one-lane travel.
- Double parkers taking up spaces
- Patrons of business and residents competing for on-street spaces
- Reduce on-street parking to force people off the street to make it safer
- Blocked and partially blocked driveways from parked cars
- Too many curb cuts reduce on-street spaces
- Not comfortable parallel parking
- Monroe would be perfect for a complete street
- Cars parked at the end of blocks, where they are not supposed to, is dangerous
- 1-hour parking on Marshall Street is not enforced enough

Off-Street Parking

- Increase zoning requirements for more off-street parking
- Alexander Park Garage should be used more
- Conversion of homes to apartments without adequate parking
- Not enough off-street parking that is safe and close
- Shared lots are always full
- Parking for the library is difficult: too few spots, walking with kids to the library can be dangerous.

- Large lot behind Monroe Square is never full, and nearly empty after business hours
- Wadsworth Square lot is underutilized because no one knows it is there, and/or lighting is poor
- There are no public lots

Bus/Transit

- Not enough bus services/connections
- Bus connections to other neighborhoods, instead of to and from downtown
- Bus stops are not frequent enough and in the wrong places

Bike Facilities

- Inconsistent bike lanes: too many transitions from sharrows to bike lanes to nothing
- Sharrows are not safe/large enough
- More Bike Lanes
- Need increased bike parking

Pedestrian Amenities

- Provide better pedestrian access
- Unsafe crosswalks
- Not enough crosswalks
- Right-on-red makes crosswalks dangerous
- Crosswalk paint is worn off
- Sidewalks need to be fixed

Signage/Enforcement

- Difficulty reading, understanding, and following the parking regulation signs
- Confusing signage
- Lack of signage
- Lack of enforcement
- “Overzealous” parking enforcement

Snow Removal

- Very irregular and incomplete snow removal on neighborhood streets
- Sidewalks are not cleared in winter months that prevents walking
- Snow is piled in parking spaces
- Snow removal is not adequate for biking

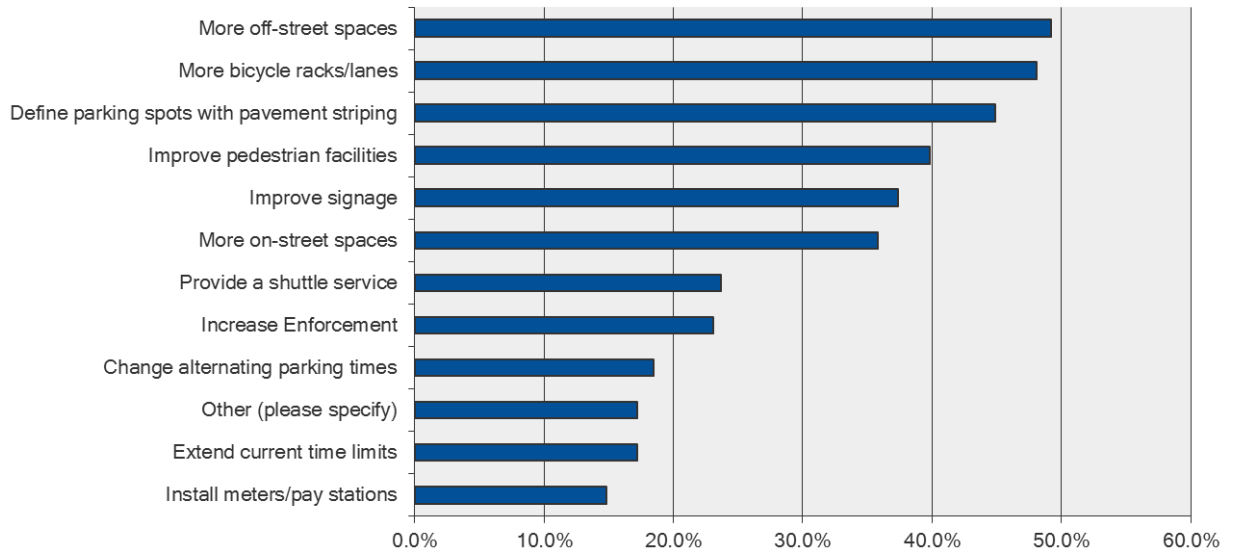
General

- Cars traveling too fast for bikers, walkers, and parallel parking
- Convincing drivers it’s okay to walk
- Difficulty parking during special events
- I-490 interchange with Monroe is dangerous (cars, pedestrians, bikes) and congested
- Streets need to be repaved/too many potholes

- Parking is not a problem if you are willing to walk a couple of minutes
- Parking problems follow time of day and day of week
- Live in an urban area for the experience, not for ample parking
- It's an urban area, there is no problem
- Parking is not a problem

Future Parking/Mobility

1. When asked what would make parking/mobility in the corridor better:



2. When asked if the corridor would benefit from shared-parking among businesses with different hours:

- 80.9% (301) 'Yes'
- 19.1% (71) 'No'
- Respondents who indicated 'Yes', were asked where:
 - Rite Aid
 - CVS
 - AutoZone
 - Brueggers Bagels
 - Dollar General
 - Blessed Sacrament
 - Base Bank
 - Dogtown
 - Alexander Park garage
 - Monroe Square lot
 - Earthlink building
 - Citi Bank
 - City School lots
 - Lilac Laundry
 - Blockbuster lot
 - Trillium Health
 - Bar lots
 - Anywhere and Everywhere
 - Evenings and weekends
 - Weekday nights and weekday evenings

3. When asked if on-street pay parking would change their decision to park:
 - 44.9% (167) 'Yes'
 - 35.8% (133) 'No'
 - 19.4% (72) Don't know

4. As the final question, respondents were asked to provide comments and anything else that should be addressed for parking and mobility:
 - Parking is not a problem. Monroe Avenue is a vibrant urban neighborhood that should strive to emulate other successful urban neighborhoods, and not suburban shopping centers.
 - Parking should be free. Without adequate parking, or if parking becomes metered, commerce and residents will turn to the suburbs.
 - Frequency of illegally parked vehicles causes numerous problems. Enforcement and parking management needs to increase.
 - Parking should be metered and priced to ensure turnover and distribution.
 - Improved/maintain pedestrian crosswalks, and amenities. Increase the number of accessible crosswalks.
 - Economic development, especially small businesses, have been hindered by zoning code requirements for parking.
 - The corridor was built before contemporary parking requirements. More parking is needed for businesses to be viable.
 - Increase the number of bike lanes to increase safety of those bicycling, and encourage more bicycling.

2.3 Stakeholder Interviews

The BPZ and PAC identified a list of 39 key stakeholders to engage early in the study process. They included business owners/managers, property owners, organizations, neighborhood associations, public agencies, public facilities, and places of worship. A list of these stakeholders and their affiliation can be found in the PPP in Appendix B.

A questionnaire that expanded upon the public survey was prepared and provided to each stakeholder. Out of the 39 identified stakeholders 15 provided input and recommendations. The following provides a summary of themes obtained from the stakeholder questionnaire and interviews:

Enforcement

1. Lack of enforcement with regards to time limits in front of business that have requested a specific time restriction on parking. Signage is provided noting time limits.
2. Lack of enforcement for ADA compliance.
3. Congestion... when and where.
4. Marshall Street at night.
5. Public lot behind Starbucks. Residents above businesses utilize parking lot for days.
6. Oxford Street on Sundays during church hours.
7. Goodman area during rush hours.
8. Oxford and Averill on both sides of the street.

Parking

1. Parking is not an issue if you are willing to walk
2. Parking is an issue.
3. Perception of parking is an issue. Parking is available within a block. People need to be willing to walk.
4. Parking is only an issue for bars and those wanting entertainment licenses.
5. Customers complain when they cannot find a spot outside a business that has time restricted parking (Mini-Mart, Park Ave Pets).
6. Minimum parking zoning code requirements impact the diversity of development within the corridor and has deterred interested businesses and developers.
7. Upper Monroe has vacant storefronts. Restaurants are desired but cannot provide parking so remain empty hindering development.
8. Several “new” businesses were denied entertainment licenses due to parking regulations and not being able to provide enough spaces based on code.
9. Alexander Street garage upsets the community since it’s vacant and shut down at night with no access or availability for use.
10. Not enough turn over in front of stores.
11. Buildings, homes and community pre-date the automobile age where everyone owns a car.

Maintenance

1. Snow is an issue and maintaining access to storefronts.
2. Business owners feel they pay enough in taxes; the City should clear the sidewalks.
3. Snow impacts parking during the winter months.
4. More crosswalks and enhance existing crosswalks. The City needs to review the corridor for more convenient crosswalks to encourage safe access.

Signage

1. Parking locations seem obvious on where a motorist can and cannot park (on-street and off-street).
2. On-street parking off the Avenue is confusing to those visiting from outside the community.
3. No signage on Monroe Avenue to inform “what is the time limit?”

Future Parking and Mobility

1. Shared Parking Lots – the corridor “appears” to have a lot of parking but it’s restricted in most cases to “authorized only.”
2. Signage directing visitors to “Shared lots” and public parking.
3. No parking meters – many business owners felt parking meters would deter their customers from patronizing their businesses.
4. Could diagonal parking be utilized efficiently?
5. Access - Entrance/Exit of off-street parking lots on to side streets.
6. Ride Sharing (Uber) – plan for it now.
7. Emphasis on mobility – more biking infrastructure (continuous bike lanes), transit friendly bus stops and enhancing a walkable community.
8. Protected bike lanes on both sides of the Avenue.

On a brighter note...

1. Access and visibility to the corridor is viewed as positive.
2. There are many organizations and active people who care about this corridor.
3. The diversity of the corridor and its eclectic /alternative feel is a plus.
4. Free parking on-street is viewed as positive within the corridor and among the business owners.
5. City has done a good job installing bike racks.
6. People come to the corridor from the suburbs “A Place Where People Come to... for shopping, dining, work, entertainment.”

2.4 Public Meetings & Outreach

Public meetings were held at key stages throughout the Study process to both present data/findings and to gather feedback and input. These meetings, along with other outreach strategies, were critical to the formulation of management strategies that reflect the views and desires of the community. Public meeting and outreach material can be found in appendix D. Public meeting minutes can be found in Appendix E.

Public Outreach #1

February 24th, 2016

The first public outreach attended by the Consultant Team was a February meeting with the Monroe Avenue Merchants Association. During the meeting the Team presented a project overview, summary of existing conditions, and study goals. Feedback from the attendees was sought on the questions that comprised the public survey questionnaire and future methods of outreach. Attendees suggested changes and additions to the public survey and the creation of a public survey flyer to be distributed by local businesses. The suggestions helped increase awareness of the public survey within the community.

Public Meeting #1

April 14th, 2016

The first public meeting, held at the Monroe Square Trillium Health Facility, presented the goals, process, and objectives of the Study. This meeting was also used to publicly present initial data gathered and obtain feedback from the community. Representatives from the BPZ, PAC, and 16 members of the community were in attendance. The meeting included an overview presentation, a group discussion, and break-out discussions at various stations. Interactive discussions during the meeting ranged from Study methodology, data collection and analysis process, and future fixes/recommendations. Suggestions for future fixes/recommendations were noted for consideration or inclusion in the parking and mobility recommendations section of the Study.



Public Outreach #2

June 4th, 2016

The second public outreach initiative occurred during the Spokes & Ink Bike and Poster Festival on June 4th at an informational booth. Representatives from the BPZ and PAC were present to provide information and answer questions regarding findings of the existing conditions and utilization counts. Approximately 40-60 members of the community visited the information booth and discussed their views on parking and mobility within the neighborhood. Also at the information booth were poster boards that allowed members of the community to vote on the issues, concerns, and solutions affecting parking and mobility. The poster boards and votes are provided in Appendix D.



The most voted *issue/concern* includes:

- Inadequate bicycle infrastructure and amenities
- Inadequate parking supply (on-street)
- Sidewalks/crosswalks in poor condition
- Double parking along residential side streets

The most voted *solution* includes:

- Expand/enhance bicycle infrastructure to encourage increased biking
- Improve public real/pedestrian amenities to encourage walking
- Improve bus stop amenities/promote use of public transit
- Encourage/incentivize shared-parking lot agreements amongst businesses

Public Meeting #2

August 6th, 2016

The second public meeting, held during the Park Ave Festival, presented and gathered feedback on current parking demand, needs and opportunities assessment, and draft recommendations. Representatives from the BPZ and PAC were present to provide information and answer questions at one of the festival booths. Approximately 180-200 members of the community visited the booth to learn about the progress of the study and offer feedback and input. Also at the booth was a poster that allowed members of the community to vote on the draft parking and mobility recommendations.



The most voted draft *parking and mobility recommendations* include:

- continue efforts to incorporate defined bicycle lanes
- provide protected (separated) bicycle lanes
- explore alternate transit options including a street car that connects City Center with Brighton
- provide bicycle parking shelters
- define on-street spaces - “tick” pavement markings
- provide wayfinding signage to public parking
- review and expand transit frequency
- shift to customer-friendly approach incremental fines
- provide countdown timers [for pedestrians] at lighted intersections*

**Note: Since the time of the public survey all pedestrian signals along Monroe Avenue have been updated to countdown timers.*

The poster board and votes are provided in Appendix D.

Genesee Transportation Council Presentation

February 2017

A final presentation to the Genesee Transportation Council Planning Committee was given to present study findings, recommendations, and to obtain approval for plan acceptance and project close out. The City of Rochester will coordinate with local agencies to begin work on implementing recommendations set forth in this study.

3.0 EXISTING CONDITIONS

3.1 Methodology

An inventory of existing conditions was conducted between January and March 2016. To provide a framework prior to data collection efforts, contextual information was reviewed that included previous planning studies, Geographic Information Systems (GIS) data, existing land uses, and applicable zoning codes. Parking data and information collected included capacity, restrictions, regulations, fees, and signage. While on-street data was collected across the entire Study area, off-street data was limited to those facilities that were public or public/private. No off-street data was collected for private parking associated with private residential, with the exception of apartment buildings. Mobility data and information collected included bus routes, bus stops, bike lanes, bike racks, and crosswalks. Geographic Information System (GIS) data from the City of Rochester's databases was also utilized, although GIS data associated with parking regulations, restrictions, and signage, was not available. This, and other critical information, was collected from field visits, aerial imagery, and online street photography. The following sections detail the existing conditions for parking/mobility found within the Monroe Avenue Corridor.

3.2 Planning Study Review

The following planning studies were reviewed to provide a framework prior to field data collection efforts.

- The 1993 **Southeast Area Planning Study** examined the trends and characteristics for the Southeast Area of the City, which included the Monroe Avenue corridor. The following outlines the Southeast Area Planning Study's goals:
 - Provide a summary profile of the Southeast Study Area
 - Identify the major issues facing the Southeast Area
 - Recommend ways to address these identified issues
 - Identify any issues that will require further analysis.

Monroe Avenue from the Inner Loop to I-490 was identified as a sub area requiring a detailed analysis of parking and traffic. The following short-term, long-term, and design guidelines were noted in the study:

Short-term Recommendations

- Shared Use Parking Lots – shared use of current parking lots would provide additional spaces and be effective immediately. This concept should be a top priority.
- Zoning – Rezone the area between Edmonds and Amherst Streets from C-3 to C-2 to promote smaller neighborhood oriented uses and deter larger developments that are not consistent with the overall character of this section of Monroe Avenue.

Long-term Recommendations

- New Parking Lots – provide new surface parking lots in vacant lots. Evaluate placing additional parking lots in the rear of buildings. Current zoning prohibits the conversion of vacant lots to surface parking. Additional zoning review would need to take place. Placement of new surface parking lots behind store front buildings would provide

additional parking without causing a significant negative effect on the visual character of the neighborhood.

- Management – enforcement of on-street parking time limits would be easier with the installation of meters. However, merchants indicated this would deter people from frequenting and patronizing their businesses.
- Alternate Side Parking – improve traffic flow by eliminating one of the parking lanes in conjunction with shared use parking lots.
- Parking Variances – prohibit parking variances along the corridor in the interim unless efforts are made to share existing parking lots. Business should not be allowed to expand unless they can provide the required number of parking spaces.

Design Guidelines were also reviewed and the following were noted:

- Preservation of existing structures is preferable to the construction of new buildings when designing new uses.
 - Pedestrian friendly design should be a priority and include access to buildings from Monroe Avenue and developing clearly defined pedestrian walkways.
 - New buildings should have architecture that compliments the surround urban fabric and be constructed with similar materials.
 - Height of new buildings should be similar to that of surrounding buildings and area.
 - When possible, businesses should be designed with store fronts along Monroe Avenue and parking located behind the building.
- The 2000 **Phase 1 Monroe Avenue Corridor Study** evaluated the potential for “*creating a joint Monroe Avenue Corridor and Gateway planning initiative*” among the City of Rochester, Town of Brighton, and Town of Pittsford. The study created a list of recommendations that capitalized on the opportunities along the corridor and mitigated constraints. Two of the recommendations state:
 - “Develop and adopt consistent design standards and policies related to traffic, traffic circulation patterns, public transportation, parking, sidewalks and trails, street widths, access management, and curb cuts.”
 - “Jointly request NYSDOT to include, in its Transportation Improvement Program, improvements to the avenue which continue the pattern set by the City’s recent work, especially in the use of traffic calming measures and the reduction of travel lanes to create space for bicycles and to accommodate on-street parking.”
 - The 2005 **Community-Based Vision Plan for the Upper Monroe Neighborhood** was a community driven charrette process produced by the Rochester Regional Community Design Center. The Charrette focused on gathering public ideas and opinions on the future physical environment of the Upper Monroe Neighborhood; extending along Monroe Avenue from I-490 to Culver Road, Culver Road up to I-490, and properties along I-490 between Monroe Avenue and Culver Road. Several sections and areas were focused on during the charrette process. Among all of the sections and areas, several themes/principles emerged for neighborhood design and development: neighborhood identity, pedestrian friendliness, new and existing green space, strong gateways, historic preservation, economic vitality, safety and security, and increased community use. From the community charrette process,

the Rochester Regional Community Design Center combined ideas to form a physical plan that guides future development in the neighborhood.

- The 2011 **City of Rochester Bicycle Master Plan** identified “*long-range opportunities for improved bicycling infrastructure and services within the City.*” Among the numerous social and economic advantages of expanding the bicycle infrastructure, the study sought public input, thorough analysis, and a prioritization of infrastructure improvements. Public input listed Monroe Avenue as the second most important corridor where “bicycle facilities would be most beneficial.” Levels of Service analysis showed Monroe Avenue as having C, D, and E. Bicycle crash analysis showed a relative high concentration of crashes from S. Goodman to the former Inner Loop. One of the outcomes of the study prioritized segments of city streets on a scale from Tier 1 (highest priority) to Tier 4 (lowest priority).
 - Tier 1: Monroe Avenue from Alexander Street to S Goodman Street; Alexander Street from Monroe Avenue to East Avenue; S Goodman Street from S Clinton Avenue to E Main Street.
 - Tier 2: Monroe Avenue from S Union Street to Alexander Street; S Union Street from Monroe Avenue to Alexander Street.
 - Tier 3: Alexander Street from Monroe Avenue to S Union Street/Broadway Street.
 - Monroe Avenue from S Goodman Street to Culver Road was not included in a tier because it was classified as having met the target bicycle level of service of “C.”
- The **Inner Loop East Transformation Project** sought to evaluate and gather public input on the rehabilitation/reconstruction of the eastern portion of the Inner-Loop as the highway was reaching the end of its operational lifespan. The project is currently in the construction phase with an anticipated completion date of December 2017.

The completed community engagement and planning phase of the project focused on four objectives/purposes:

- Support or Enhance Community Quality of Life
- Enhance Economic Opportunities
- Enhance the Center City’s Transportation Network
- Preserve or Enhance Environmental Health

As one of the major corridors that is bisected by the Inner Loop, Monroe Avenue was highlighted as facilitating auto and pedestrian access across the Inner Loop, but still needing improved connectivity and community cohesion. Parking was specifically mentioned in the study: “*The area of South Union Street between Monroe Avenue and East Avenue experiences an extremely high demand for parking at all times of the day. This is attributed to several adjoining dead end streets and the predominately multi-family dwellings within this area.*”

The study portion of the Inner Loop East Project has been completed. Construction and development efforts were ongoing throughout the course of this study. As street construction and parcel reconfigurations occur, portions of the Monroe Avenue Parking/Mobility study area will be affected. Altered travel circulation, street geometries,

pedestrian facilities, transit routes and facilities, and bicycle facilities will result upon its completion.

3.3 Land Use + Development Patterns

Land use and development patterns form the basis of the built environment. Elements that distinguish between different land use patterns include: mixture of uses, density, lot size, layout/connectivity, and concentration around transit. These factors have a direct impact on the character, social, economic, transportation, and environmental qualities of an area. Like most municipalities, land use and development patterns are mostly influenced by local zoning codes. This section briefly evaluates the current factors defining the built environment found within the Study area.

Mixture of Uses + Density + Lot Size

When land use and development patterns are evaluated across the scale of the entire Study area, the mixture of uses, density, and lot sizes are characterized by transitions that create three distinct areas:

1. Former Inner Loop to Averill Ave

Mixture of Uses: While most of the Study area contains a mixture of uses, this area is unique to its breadth and scale of development; both on and off of Monroe Ave. Most categories of land use and development are present within this area, and extend north following the former Inner Loop. One exception is a triangle of primarily residential development (separated from other areas of residential development). This triangle is bounded by Marshall Street, Monroe Avenue, South Union Street, and I-490.

Density/Lot Size: As an area within close proximity to the Center City, development is larger than other parts of the Study area. This development is characterized by office buildings, parking facilities, and public schools. Office buildings are located adjacent to Alexander Street, South Union Street, and Monroe Avenue. Parking for these developments is accommodated through surface lots and a parking garage (Alexander Park Parking Garage). Public Schools in the area include: School Without Walls, adjacent to Broadway; James Monroe High School, adjacent to Alexander Street; and School 15-Children's School of Rochester, adjacent to Averill Avenue. These schools have associated surface parking lots. The scale of parking facilities has a distinct presence in this area. Ownership and regulations for these parking facilities is discussed in greater detail later in the study. These larger-scale developments are mixed with older, and smaller, development. Over time, this larger development has replaced the original smaller traditional development, and consequently, altered the character and function of the neighborhood.

2. Averill Ave to I-490

Mixture of Uses: As with most of the Study area, this area contains a mixture of land uses. Similar to the previous area, this area's greatest mixture of land uses and development is found along/adjacent to Monroe Avenue. Few properties along this segment of Monroe Avenue are residential. The side streets off of Monroe Avenue within this area are characterized by a large proportion of multi-family residential properties and apartment buildings.

Density/Lot Size: Most of this area is characterized by traditional dense urban development. In some areas, this density limits opportunities for development of off-street parking to serve multi-family residential properties. In contrast to the dense urban development pattern of the area, a cluster of commercial development at the intersection of South Goodman Street and Monroe Avenue contains relatively larger parcels, less density, and a large percentage of land area devoted to parking lots.

3. I-490 to Culver Rd

Mixture of Uses: While this area also contains a mixture of land uses along Monroe Avenue, it is clustered at the intersections of Monroe Avenue with Laburnum Crescent, Harwood Street, and Belmont Street. Beyond these clusters is multi-family and single-family residential properties. This distinction between mixed-use and residential development was also seen in the Averill Avenue to I-490 area.

Density/Lot Size: Density and lot size is similar to the Averill Ave to I-490 area. Scale of the development, however, is relatively smaller within the noted clusters of commercial development.

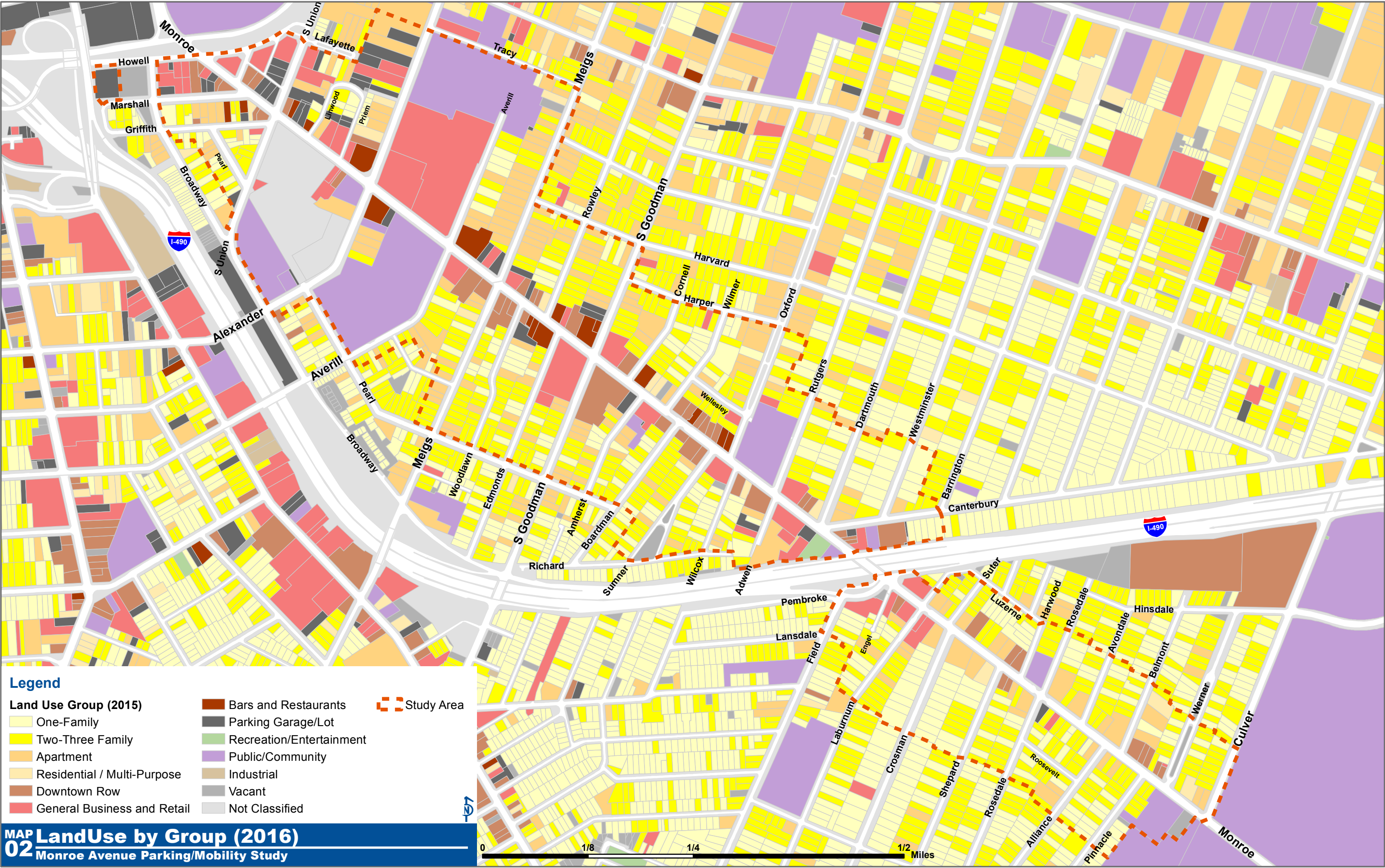
Layout/Connectivity

Monroe Avenue is one of several radial streets originating from Center City. Similar to other areas of the City, this thoroughfare concentrates mixed-use commercial development along the avenue, creating a corridor. Neighborhood streets off of Monroe Avenue follow a traditional interconnected grid and is predominantly residential in nature with localized variations creating distinct and interesting areas. The presence of I-490 in this area creates a neighborhood barrier, and impairs connectivity and mobility.

Concentration around transit

RTS bus route 47 and 47x serve the Monroe Avenue corridor within the Study area. Bus stops along this route are dispersed approximately every 1-2 blocks. A gap in bus stops exists between Werner Park and Shepard Street where development is primarily residential. Because bus stops are fairly distributed along this traditional urban corridor, only a minor correlation exists between these transit stops and development patterns.

Map 02 shows the land uses within the Study Area and surrounding neighborhoods.



Legend

Land Use Group (2015)

- One-Family
- Two-Three Family
- Apartment
- Residential / Multi-Purpose
- Downtown Row
- General Business and Retail
- Bars and Restaurants
- Parking Garage/Lot
- Recreation/Entertainment
- Public/Community
- Industrial
- Vacant
- Not Classified

Study Area

3.4 City Code Requirements

Parking regulations and restrictions for both public and private parking facilities are outlined in both the City of Rochester's Municipal Code (on-street) and Zoning Code (off-street). Codes regarding regulations for on-street parking, off-street parking minimums and off-street parking maximums, alternative parking plans, and bicycle parking requirements were captured and summarized below. These codes were sourced from the City of Rochester's 'ecode360' website in May, 2016. Map 03 at the end of this section, shows the zoning districts found within the Study area and surrounding neighborhoods. Appendix F includes detailed excerpts from each of the respective codes for the sub-sections below.

On-Street Parking

The City Municipal Code details on-street parking regulations that seek to maintain a safe and equitable use of parking facilities. Many of these regulations are common for municipalities and are within the NYS Vehicle & Traffic Law. On-street parking regulations are found in Chapter 111 (Vehicle and Traffic), Article I (Traffic Ordinance):

- Part 16 (Parking for more than twelve hours prohibited)
- Part 23 (Stopping, standing or parking prohibited in certain places)
- Part 24 (Standing or parking prohibited in specified places)

A detailed description of parking enforcement and parking regulations is found in section 3.5.6 Enforcement below.

Off-Street Parking Requirements

Off-street parking requirements are often enacted in a municipality to prevent parking spillover from developments on to local streets. Common applications of parking requirements thus seek to provide adequate off-street parking to accommodate users' needs. The City's Zoning Code outlines parking requirements in Chapter 120, Article XX (Requirements to All Districts), Section 173 (Off-Street Parking). These requirements are for existing development, when they change in use or intensity, and for new development.

Parking minimums for existing development, and new development, are outlined in the Zoning Code by land use. Existing developments do not need to meet parking minimums if the *"existing use was deficient in required parking spaces on such effective date."* If the existing development was previously deficient, *"such new use may be established with a deficiency in required parking spaces equal in number to not more than such preexisting deficiency."* Existing and new uses not expressly listed in the Zoning Code are required to use the requirement for the most similar use, or be determined by the BPZ. A grouping of three or more uses occupying the same parcel require a parking demand analysis. The requirements for a parking demand analysis are outlined in the Zoning Code.

The following parking minimums are included in the City's Zoning Code:

| USE | MINIMUM |
|--|--|
| <i>Residential</i> | |
| Single-family detached, semidetached, two-family and attached dwelling | 1 per dwelling unit |
| Multifamily dwelling | 1 per efficiency unit 1 per 1-bedroom unit 1.2 per 2-bedroom unit 1.5 per 3-bedroom or larger unit |
| <i>Educational and Religious</i> | |
| Place of worship | 1 per 4 seats |
| Schools, elementary and intermediate | 2 per classroom |
| School, secondary | 1 per 10 students plus 2 per classroom |
| <i>Cultural and Recreational</i> | |
| Auditorium and theaters | 1 per 4 seats |
| Community center | 3 per 1,000 square feet net floor area |
| Convention hall | Parking demand analysis |
| Health clubs and similar facilities | 4 per 1,000 square feet net floor area |
| Entertainment | 0.5 per allowable occupancy |
| Library | 1 per 1,000 square feet net floor area |
| <i>Government, Safety and Health</i> | |
| Medical clinic, medical office | 5 per 1,000 square feet net floor area |
| <i>Retail</i> | |
| Furniture, carpet or floor covering store | 1 per 1,000 square feet net floor area |
| General retail | 2 per 1,000 square feet net floor area |
| <i>Services</i> | |
| Bank | 2 per 1,000 square feet net floor area |
| Bar, tavern, nightclub (without entertainment) | 10 per 1,000 square feet net floor area |
| Bar, tavern, nightclub (with entertainment) | 1 per 2 persons maximum occupancy |
| Dry cleaning and laundromat | 2 per 1,000 square feet net floor area |
| Hotel and motel | 1 per sleeping unit |
| Office, professional or business | 2 per 1,000 square feet net floor area |
| Restaurant, carry-out | 2 per 1,000 square feet net floor area |
| Restaurant, with drive-through facility | 6 per 1,000 square feet net floor area for one drive-through; 4 per 1,000 square feet net floor area for 2 drive-throughs; 2 per 1,000 square feet net floor area for more than 2 drive-throughs |
| Restaurant, sit-down | 10 per 1,000 square feet net floor area |
| <i>Vehicle-Related Uses</i> | |
| Vehicle repair/vehicle service station | 2 per bay |

Off-street Parking Maximums

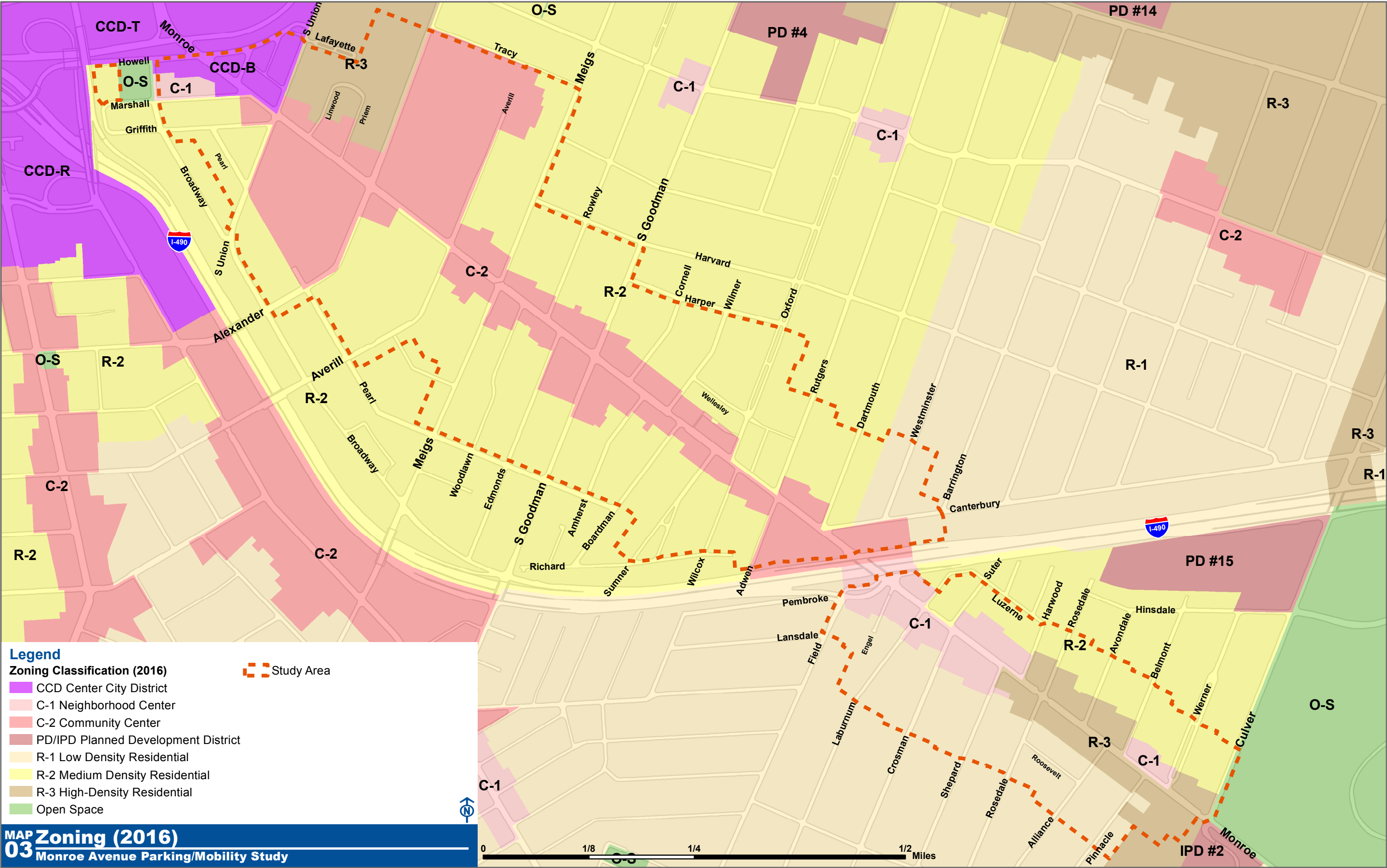
The maximum number of off-street parking spaces is outlined in the City's Zoning Code, Chapter 120, Article XX (Requirements to All Districts), Section 173 (Off-Street Parking), Sub-section D (Maximum Number of Parking Spaces) states: *"No use other than single, two-family and attached residential uses, subject to the per unit requirements in § 120-173F, shall provide more than 110% of any of the above-listed requirements, except through the submission of a parking demand analysis in accordance with § 120-173B and approval of a special permit in accordance with § 120-192."*

Alternative Parking Plans

Existing and new developments seeking to meet off-street parking minimums through alternative means can submit an Alternative Parking Plan. Details for an Alternative Parking Plan can be found in the City's Zoning Code, Chapter 120, Article XX (Requirements to All Districts), Section 173 (Off-Street Parking), and Sub-section E (Alternative Parking Plans). Potential alternatives to the required number of off-street parking spaces include credits for: share-parking arrangements, on-street parking, bicycle parking, pedestrian-oriented uses, nearby transit, and valet parking.

Bicycle Parking Requirements

Bicycle parking facility requirements can be found in the City's Zoning Code, Chapter 120, Article XX (Requirements to All Districts), Section 173 (Off-Street Parking), Sub-section C (Required Parking Spaces), Number 3 (Bicycle Parking) states: *"Bicycle parking shall be provided equal to 10% of the vehicle parking requirements for the property, for a minimum of two bicycles, for all multifamily housing (over 10 units), commercial and industrial uses."*



Legend

Zoning Classification (2016)

- CCD Center City District
- C-1 Neighborhood Center
- C-2 Community Center
- PD/IPD Planned Development District
- R-1 Low Density Residential
- R-2 Medium Density Residential
- R-3 High-Density Residential
- Open Space

Study Area

3.5 Vehicular Conditions

3.5.1 Supply + Ownership

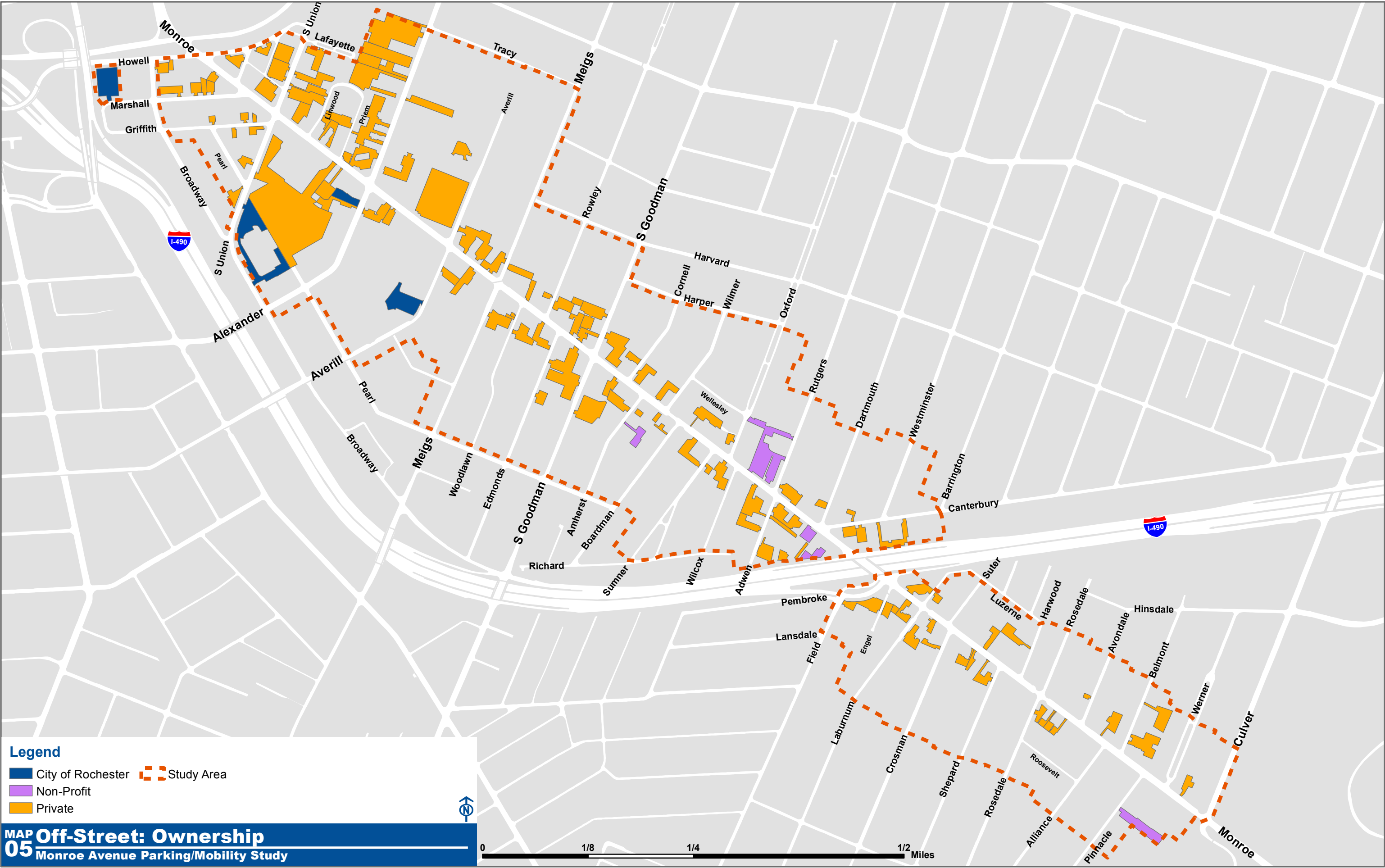
From fieldwork conducted between January to March 2016, the parking supply for both on-street and off-street was quantified. These numbers represent both public and public/private parking on-street and off-street. While industry standards for the length of on-street parking delineations vary, careful consideration was given to determine the appropriate length used for this Study. Through field observations and measurements, it was apparent due to the original design of the neighborhood, people parking as close as possible to each other, and existing on-street markings, that 18 foot increments represented an appropriate parking length for this Study. Another consideration was the City's Municipal Code as it applies to parking near driveways. The Code states no vehicle may park within 5 feet of a public or private driveway but defining where to measure from is not clearly defined. As comparable cities have codes stating that no vehicle may park that blocks a private driveway, delineations of parking spaces for this Study were measured from curb cut to curb cut. With these considerations, on-street spaces were measured using aerial photography at 18 foot increments from curb cuts, regulatory signage, and/or based on vehicle traffic law.

There are a total of 5,993 public and public/private parking spaces within the Study area. 4,402 (73%) parking spaces are located off-street, while 1,591 (27%) are located on-street. Table 01 summarizes the general classification of parking found and inventoried within the Study area. Map 04 shows the distribution of on-street and off-street parking.

| Table 01 Parking Supply + Ownership | | | | | | | | |
|-------------------------------------|--------------|-------------|--------------------|------------|--------------|------------|----------------------|------------|
| | Total Spaces | | Publicly Available | | City-Owned | | Private & Non-Profit | |
| On-Street | 1,591 | 27% | 1,591 | 100% | 1,591 | 100% | - | 0% |
| Off-Street | 4,402 | 73% | 3,293 | 75% | 179 | 4% | 4,223 | 96% |
| Total | 5,993 | 100% | 4,884 | 81% | 1,770 | 30% | 4,223 | 70% |

A parking space was determined to be publicly available if signage indicated a general member of the public could park at a given time or user-related restriction. Non-publicly available parking included: 'Employees Only,' 'Private,' and 'Tenant Only.' More detail for on-street and off-street parking regulations and restrictions are found in the following sections. As shown in the parking distribution table, all on-street spaces within the Study area are publicly owned. The number of off-street parking spaces by ownership and type are detailed in Table 02 below. The largest sub-category of publicly available parking is the Alexander Park parking garage. This 1500 space garage offers both monthly permits and hourly parking and is privately owned by Buckingham Properties.

| Table 02 Off-Street: Ownership | | | | | See Map 05 | |
|--------------------------------|------------------|---------------|----------------|--------------|-----------------|--------------|
| Owner | Total Off-Street | | Spaces in Lots | | Spaces in Ramps | |
| City of Rochester | 179 | 4.1% | 179 | 4.1% | - | - |
| Non-Profit | 202 | 4.6% | 202 | 4.6% | - | - |
| Private | 4,021 | 91.3% | 2,485 | 56.5% | 1,536 | 34.9% |
| Total | 4,402 | 100.0% | 2,866 | 65.1% | 1,536 | 34.9% |



3.5.2 Rates

On-Street Rates

Currently, there are no on-street parking meters within the Study area. Parking meters exist in other areas of the City of Rochester, both in the Center City and surrounding neighborhoods. According to the Bureau of Parking website, anyone can contact the City Traffic Control Board to request the installation of parking meters (free of charge). Information, requirements, and conditions may be required by the City Traffic Control Board.

Off-Street Rates

As the only publicly available parking facilities with associated fees, the following parking rates are for the Wadsworth Square parking lot (owned by the City of Rochester), and Alexander Park parking garage (owned by Buckingham Properties):

Wadsworth Square permit rates:

Non-residents: A \$25 one-time fee per parking space requested is required followed by a \$25 recurring monthly fee per space. Thus, the one-time fee and recurring monthly fee calculates to a total yearly cost per parking space of \$325.

Residents: The designation of a “resident” is limited to those living on Marshall Street or in the Broadway area. A \$25 one-time fee per parking space is the only cost associated with obtaining a parking permit. There is no recurring monthly fee per parking space.

As of March 2016, there were a total of 30 monthly permit holders for this lot. 27 of those permits belonged to area businesses (non-residents), with the remaining 3 permits held by local residents. From a field visit, the Wadsworth Square parking lot has 63 spaces total.

Alexander Park permit rates:

Parking permits are available to tenants of Buckingham Properties. Permits are either rolled in to leasing agreements, or are \$35 per month per space. As of May 2016, Buckingham Properties indicated that approximately three-quarters (3/4) of the facility contains permit holders. The Alexander Park parking garage accommodates 1,500 vehicles.

Alexander Park hourly rates:

| | | |
|-----------|---------|--------|
| 0 - 30 | Minutes | Free |
| 30 - 60 | Minutes | \$2.45 |
| 1 - 1½ | Hours | \$3.25 |
| 1½ - 2 | Hours | \$3.50 |
| 2 - 3 | Hours | \$4.05 |
| 4 or more | Hours | \$4.85 |

3.5.3 Regulatory Signage

On-street: Regulatory Signage

On-Street parking regulatory signage within the Study area includes information on time-limits, time spans, alternating parking, street cleaning, accessible (handicap) parking, and areas of restricted parking. Several segments of road,

however, are unregulated (no regulatory signage). The following tables detail each of these on-street parking regulatory categories. Most tables also have a corresponding map number (i.e. Map 04: Time Limit) that shows the spatial distribution of the regulation. It is noted that since several of the regulatory areas include overlapping regulatory signage, the following categories add to greater than the total number of on-street spaces of 1,591. Due to these overlapping regulations and restrictions, there are a total of 40 unique combinations of on-street parking regulations. Based on the categorization of on-street parking regulations, listed above, alternating parking comprises 54.3% of parking spaces. The next largest categories are: unregulated (17.1%), and time limits (15.7%).

| Table 03 On-Street: Summary | | |
|------------------------------------|---------------|----------------|
| Sign | Spaces | Percent |
| Time Span | 83 | 5.2% |
| Alternating Parking | 864 | 54.3% |
| Street Cleaning | 146 | 9.2% |
| Time Limit | 250 | 15.7% |
| Reserved Parking | 8 | 0.5% |
| Unregulated (No Signage) | 272 | 17.1% |
| No Parking, Standing, Stopping | n/a | n/a |
| Total | 1,623 | 102% |

On-street: Time Limit

Time limit signage consisted of 15-minute, 1-hour, and 2-hour parking restrictions. Altogether, there are 14 different time limit signs. The group of 1-hour parking time limit signs has nine different variations. Some of these signs only exist for one parking space or for one side of one block within the Study area.

| Table 04 On-Street: Time Limit | | See Map 06 | |
|---------------------------------------|---------------|-------------------|--|
| Sign | Spaces | Percent | |
| 15 Min Parking 8AM-8PM | 4 | 0.3% | |
| 15 Min Parking Any Time | 7 | 0.4% | |
| 1 HR Parking 7AM-6PM | 12 | 0.8% | |
| 1 HR Parking 8AM-5PM Mon-Fri | 1 | 0.1% | |
| 1 HR Parking 8AM-6PM | 91 | 5.7% | |
| 1 HR Parking 8AM-7PM | 62 | 3.9% | |
| 1 HR Parking 8AM-7PM Mon-Fri | 23 | 1.4% | |
| 1 HR Parking 9AM-6PM | 7 | 0.4% | |
| 1 HR Parking 11AM-6PM | 3 | 0.2% | |
| 1 HR Parking 11AM-9PM | 5 | 0.3% | |
| 1 HR Parking Any Time | 23 | 1.4% | |
| 2 HR Parking | 1 | 0.1% | |
| 2 HR Parking 8AM-5PM | 4 | 0.3% | |
| 2 HR Parking 9AM-5PM Mon-Fri | 7 | 0.4% | |
| Sub-total | 250 | 15.7% | |

On-street: Time Span

Time span signage indicates specific spans of time where parking is not allowed or is restricted for a specific use. This signage is distinct from alternating parking signs. Some of these signs correlate to no parking during rush-hour or no parking during typical business or school bus loading hours.

| Table 05 On-Street: Time Span | | See Map 07 | |
|--|-----------|-------------------|--|
| Sign | Spaces | Percent | |
| No Parking 6AM-8AM | 8 | 0.5% | |
| No Parking 7AM-6PM Mon-Fri | 17 | 1.1% | |
| No Parking 7AM-9AM | 10 | 0.6% | |
| No Parking 8AM-4PM Mon-Fri | 2 | 0.1% | |
| No Parking 9AM-4PM Mon-Fri | 4 | 0.3% | |
| No Parking 4PM-6PM Mon-Fri | 11 | 0.7% | |
| No Parking 10PM-2AM | 5 | 0.3% | |
| No Stopping 7AM-8:30AM, 1PM-2:30PM, Mon-Fri, Except School Buses | 17 | 1.1% | |
| No Parking Pedestrian Loading Zone | 5 | 0.3% | |
| No Stopping Taxis Only 11PM-3AM Fri-Sun | 4 | 0.3% | |
| Sub-total | 83 | 5.2% | |

On-street: Alternating Parking

Alternating parking represents the largest category of on-street parking regulations. Within this category, the 7PM-6PM sub-category is the largest and most widely distributed. The 2PM-3PM sub-category is only found on two streets in the northwest quadrant of the Study area: Griffith Street and Pearl Street. It is noted that the start and stop times for both alternating parking regulations allow a 1-hour gap where parking is allowed on both sides of the street. It is also noted that the current signs require parking to alternate six times during the course of one week. Survey respondents noted problems with illegal parking during switching times which reduced the effective space for travel down to one lane. Survey respondents also indicated that switching from 6PM-7PM was too close to the time people typically arrive home from work. Both of these problems were expressed at the public meeting, and it was noted by meeting participants that the problems would cause access difficulties for emergency personnel (fire, ambulance, and police).

| Table 06 On-Street: Alternating Parking | | See Map 08 | |
|--|------------|-------------------|--|
| Sign | Spaces | Percent | |
| No Parking 3PM Mon - 2PM Tues / 3PM Wed - 2PM Thur / 3PM Fri - 2PM Sat | 25 | 1.6% | |
| No Parking 3PM Tues - 2PM Wed / 3PM Thur - 2PM Fri / 3PM Sat - 2PM Mon | 30 | 1.9% | |
| No Parking 7PM Mon - 6PM Tues / 7PM Wed - 6PM Thur / 7PM Fri - 6PM Sat | 401 | 25.2% | |
| No Parking 7PM Tues - 6PM Wed / 7PM Thur - 6PM Fri / 7PM Sat - 6PM Mon | 408 | 25.6% | |
| Sub-total | 864 | 54.3% | |

On-street: Street Cleaning

Street cleaning signs exist to provide adequate time for street sweeping during the summer, and time for more thorough removal of snow during the winter. This signage is found on Monroe Avenue east of I-490 and along Oxford Street. Street cleaning signage is not present on Monroe Avenue from the former Inner Loop to I-490. It is also missing along Werner Park, which has a landscaped median similar to Oxford Street.

| Table 07 | On-Street: Street Cleaning | See Map 09 | |
|--|-----------------------------------|-------------------|-------------|
| Sign | Spaces | Percent | |
| No Parking 9AM-11AM Monday Street Cleaning | 56 | 3.5% | |
| No Parking 9AM-11AM Thursday Street Cleaning | 61 | 3.8% | |
| No Parking 9AM-Noon Mondays Street Cleaning | 17 | 1.1% | |
| No Parking 9AM-Noon Tuesdays Street Cleaning | 12 | 0.8% | |
| Sub-total | | 146 | 9.2% |

On-street: Accessible (Handicap)

Accessible parking is available to those with handicap parking tags or license plates. The spaces allow those with a mobility limitation to have close access to their destination. Currently, there are only 8 on-street accessible parking spaces within the entire Study area. Only 3 of these accessible parking spaces exist on Monroe Avenue within the Study area, which is 1.5 miles in length.

| Table 08 | On-Street: Accessible (Handicap) | See Map 10 | |
|---|---|-------------------|-------------|
| Sign | Spaces | Percent | |
| 2 HR Parking (Handicap) | 1 | 0.1% | |
| Reserved Parking (Handicap) | 5 | 0.3% | |
| Reserved Parking (Handicap) 7AM-6PM Sunday Only | 2 | 0.1% | |
| Sub-total | | 8 | 0.5% |

On-street: Unregulated + Missing Signage

17.1% of the on-street supply within the Study area does not have any regulatory signage. Based on City Municipal Code and NYS Vehicle and Traffic Law, these spaces are legal. Along several streets within the

Study area regulatory signage is missing, leaving the impression that the area is unregulated. As one approaches these areas, regulatory signage may not be seen until mid-block, or at the far end of the block. The lack of signage in these areas also causes confusion, as drivers may be unaware of the distances required to park from crosswalks and intersections, as required by NYS Vehicle and Traffic Law. Regulated areas with complete signage consist of one sign indicating the restriction with an arrow pointing down the block, and another sign indicating “No Standing Here to Corner” with an arrow pointing to the closest intersection.

| Table 09 | On-Street: Unregulated & Missing Signage | See Map 11 & 12 | |
|---------------------------------|---|----------------------------|---------------|
| Sign | Spaces | Percent | |
| Unregulated (No Signage) | 272 | 17.1% | |
| Missing Signage (open-ended) | 336 | 21.1% | |
| Complete Signage (closed-ended) | 983 | 61.8% | |
| Total | | 1,591 | 100.0% |

On-street: No Parking, Standing, Stopping

No parking, standing, and stopping signs all have different regulatory requirements. Each of these signs can be found across the Study area. See Map 13.

| Table 10 | On-Street: No Parking, Standing, Stopping | See Map 13 |
|------------------------------------|---|------------|
| Sign | | |
| No Parking Any Time | | |
| No Parking on this Street | | |
| No Parking Pedestrian Loading Zone | | |
| No Standing Any Time | | |
| No Standing Here to Corner | | |
| No Stopping Any Time | | |

No parking signs prohibit a person from parking a vehicle, whether occupied or not, but may permit stopping or standing temporarily for the purpose of, and while engaged in, loading or unloading merchandise or passengers.

No standing signs prohibit a person from standing or parking a vehicle, whether occupied or not, but may permit stopping temporarily for the purpose of, and while actually engaged in, receiving or discharging passengers.

No stopping signs prohibit a person from stopping, standing, or parking a vehicle, whether occupied or not, except when necessary to avoid conflict with other traffic or in compliance with the directions of a police officer or traffic-control sign or signal.

As these regulated areas are functionally different from other on-street parking regulations, and are contingent on several activities or conditions, no legal space can be delineated for analysis and/or comparison.

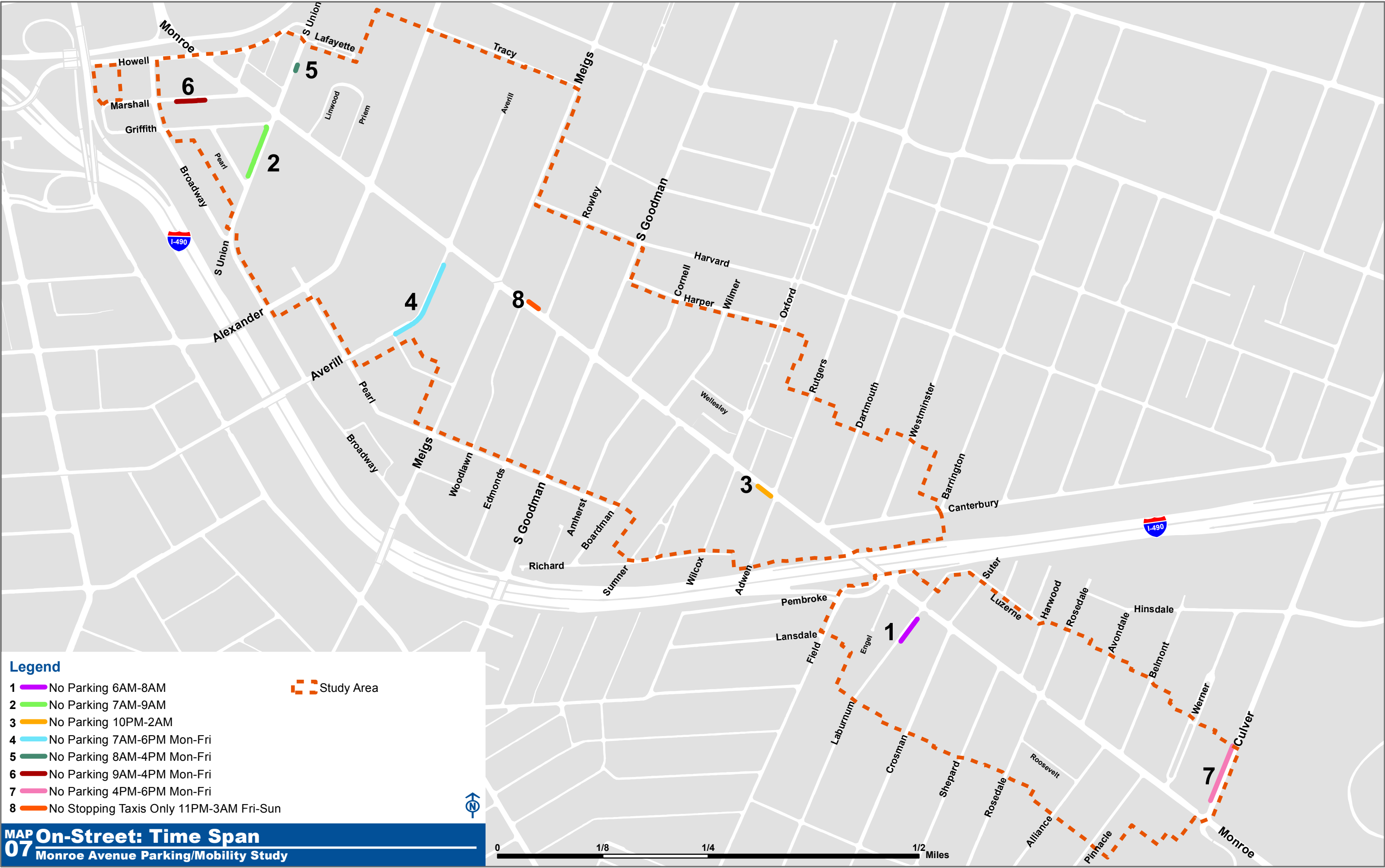
Off-Street Regulatory Signage

Off-Street regulatory parking signage within the Study area is characterized by user-restrictions and time restrictions. Table 11 lists off-street parking user-restrictions by publicly available and not publicly available. A parking space was determined to be publicly available if signage indicated a general member of the public could park at a given time or user-related restriction. Non-publicly available parking included: 'Employees Only,' 'Private,' and 'Tenant Only.' Some parking facilities with signs such as "Authorized Only" and "Customers Only" did not include information to indicate who was authorized to park or the business associated with the restriction. Also, several off-street parking areas contain no signage restricting parking. The largest sub-category of publicly available parking is the Alexander Park parking garage; labelled as "Permit & Hourly." As previously mentioned, this garage offers both monthly permits and hourly parking, containing 1,500 spaces and is privately owned by Buckingham Properties. The second largest sub-category of parking is the Monroe Square parking lot, labelled as "Tenants/Visitors (Code Access)." This parking facility is also owned by Buckingham Properties and is not publicly accessible as it requires an access code.

| Table 11 Off-Street: User-Restrictions | | | | | See Map 14 | |
|--|--------------|---------------|--------------|--------------|--------------|--------------|
| User-Restriction | Spaces | | Lots | | Ramps | |
| Publicly Available | | | | | | |
| Authorized Only | 798 | 18.1% | 798 | 18.1% | - | - |
| Authorized Only - Shared | 316 | 7.2% | 316 | 7.2% | - | - |
| Customers Only | 411 | 9.3% | 411 | 9.3% | - | - |
| Permit & Hourly | 1,500 | 34.1% | - | - | 1,500 | 34.1% |
| Permit (Free Nights & Weekends) | 63 | 1.4% | 63 | 1.4% | - | - |
| No Sign | 205 | 4.7% | 205 | 4.7% | - | - |
| <i>Sub-total</i> | 3,293 | 74.8% | 1,793 | 40.7% | 1,500 | 34.1% |
| Not Publicly Available | | | | | | |
| Employees Only | 70 | 1.6% | 70 | 1.6% | - | - |
| Permit Only | 199 | 4.5% | 199 | 4.5% | - | - |
| Private | 20 | 0.5% | 20 | 0.5% | - | - |
| Reserved | 54 | 1.2% | 18 | 0.4% | 36 | 0.8% |
| Tenant Only | 130 | 3.0% | 130 | 3.0% | - | - |
| Tenants/Visitors | 30 | 0.7% | 30 | 0.7% | - | - |
| Tenants/Visitors (Code Access) | 567 | 12.9% | 567 | 12.9% | - | - |
| Visitor Only | 39 | 0.9% | 39 | 0.9% | - | - |
| <i>Sub-total</i> | 1,109 | 25.2% | 1,073 | 24.4% | 36 | 0.8% |
| <i>Total</i> | 4,402 | 100.0% | 2,866 | 65.1% | 1,536 | 34.9% |

Time and cost restrictions for publicly accessible parking include the Wadsworth Square parking lot, and the Alexander Park parking garage. Regulatory restrictions associated with these two facilities were examined in more detail:

- The **Wadsworth Square parking lot** is located at the western terminus of Marshall Street. During a field visit, the lot was found to have 63 parking spaces. The lot is gate restricted to permit holders Monday – Friday from 6:30am – 6:30pm. For all other times, the gate restricting access is automatically raised for unrestricted public access.
- The **Alexander Park parking garage** is located between Monroe Avenue, Averill Ave, and Wolk Boulevard. Entrances to the parking garage are off Averill Ave and Wolk Boulevard. The parking garage has a total of 1,500 parking spaces throughout seven levels. Parking at this garage is limited to the hours of Monday-Friday 6AM-9:30PM, Saturday 6AM-5:30PM, and closed Sunday. After these hours, the garage is secured. There is, however, no sign indicating these hours within the parking facility or posted online. Extending access to the facility has been discussed between the property owner and the Monroe Avenue Merchants Association. The additional cost of security needed to cover these extended hours has not been agreed upon.





Legend

- No Parking 9AM-Noon Mondays Street Cleaning
 - No Parking 9AM-Noon Tuesdays Street Cleaning
 - No Parking 9AM-11AM Monday Street Cleaning
 - No Parking 9AM-11AM Thursday Street Cleaning
- Study Area



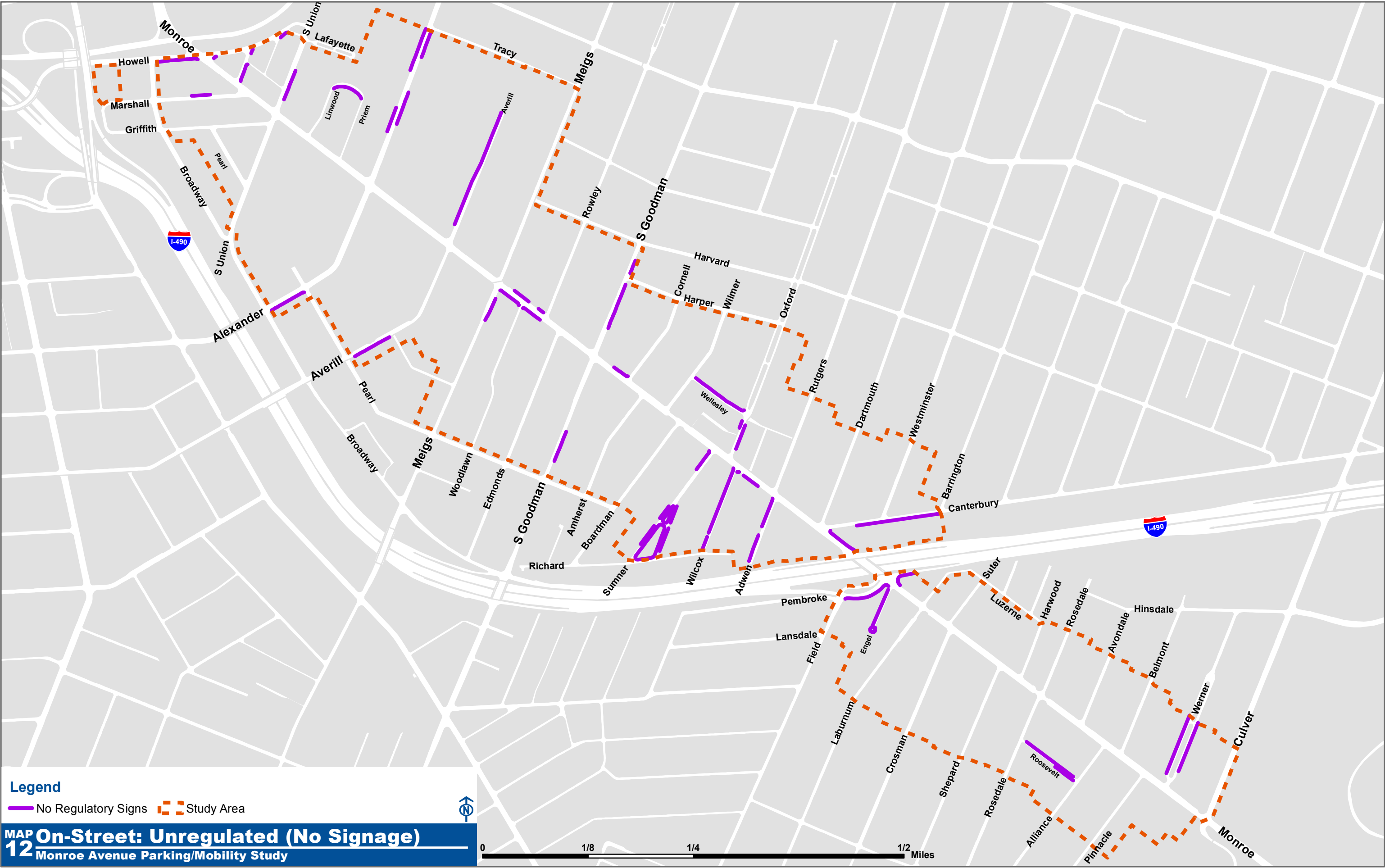
Legend

- 2 HR Parking 1 Space
- Reserved Parking 5 Spaces
- Reserved Parking 7AM-6PM Sunday Only 2 Spaces
- Study Area

Total Spaces:

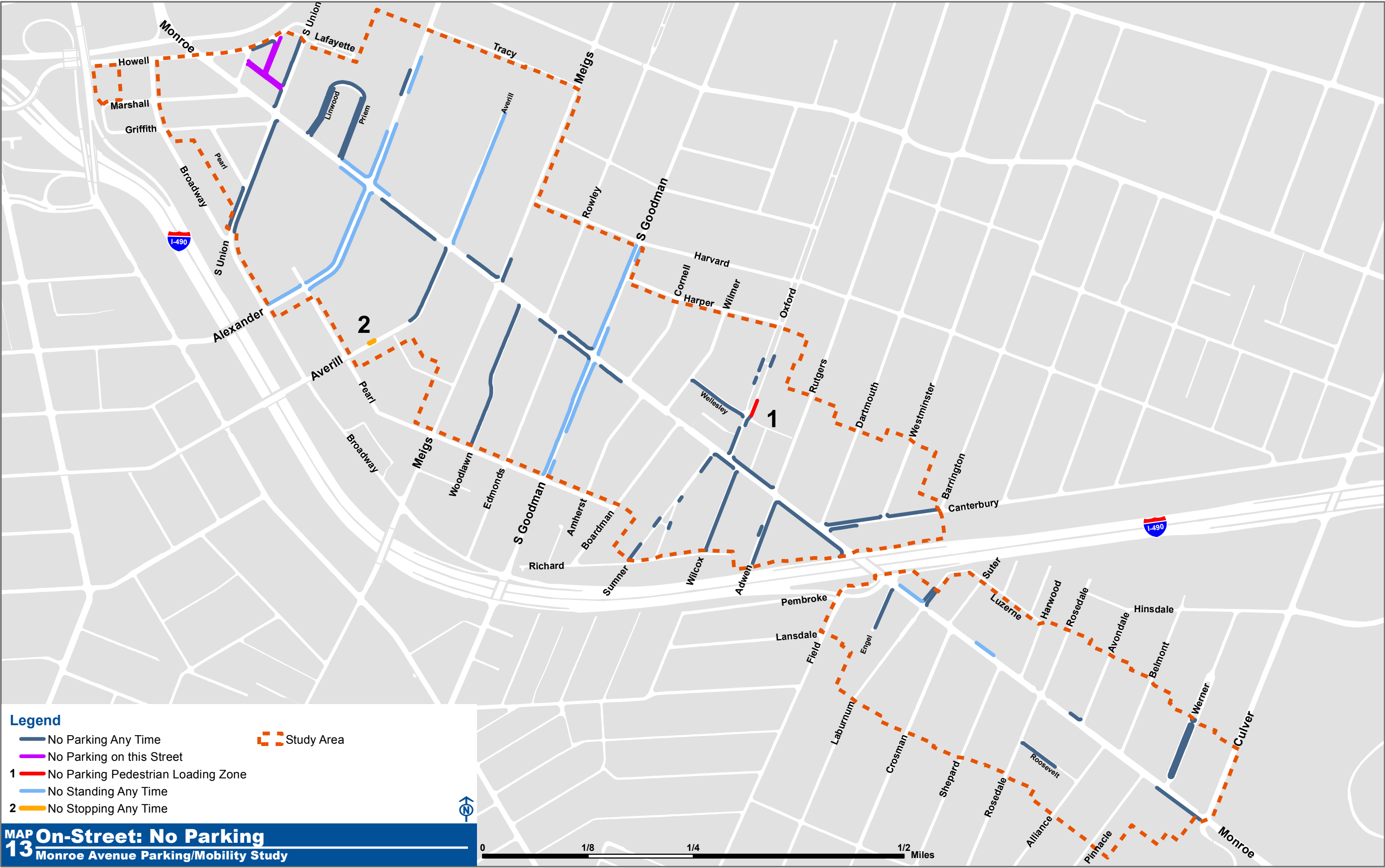
- 1 Space
- 5 Spaces
- 2 Spaces





Legend

— No Regulatory Signs - - - Study Area



3.5.4 Destination/Wayfinding Signage

Destination signage for parking facilities is found for the Wadsworth Square parking lot and the Alexander Park parking garage. This signage appears to be in fairly good, clearly legible condition, however, vehicular wayfinding signage to these facilities is lacking.

- The **Wadsworth Square parking lot** has a standard blue destination sign with a white letter 'P.' This sign is located adjacent to the parking facility entrance. No wayfinding signs exist directing people to this lot. No signage exists informing the public regarding the permit requirements or public access hours.
- The **Alexander Park parking garage** has destination signage at the primary entrance off of Wolk Boulevard. This sign also lists the hourly rate options for the public. No wayfinding signage exists directing people to the garage or its entrances. No signage exists informing the public regarding permits or public access hours.

Wayfinding signage within the Study area for key destinations exists along Monroe Avenue, South Goodman Street, and South Union Street. Each contains a distinct combination of directions to the following:

- Center City
- National Museum of Play
- Museum/Planetarium
- Eastman School/Theatre
- Manhattan Square Park
- Rochester Public Market
- Memorial Art Gallery

3.5.5 Road Markings

Two types of vehicular road markings exist: travel lane markings and parking space markings. Travel lane markings typically include the center yellow line and the edge white line. However, both lines are not always found together. Their condition/visibility range from highly worn to clearly visible. The MCDOT indicated that centerline road marking are refreshed annually and edge line road markings are refreshed bi-annually.

Parking space markings consist of tick marks that delineate each corner of the parking space. Through measurement from aerial imagery (Pictometry and Google Earth), these spaces were found to be 18 feet in length. The Bureau of Parking has preferred to install tick marking only for spaces with associated metered parking.

3.5.6 Enforcement

The City of Rochester Bureau of Parking oversees many aspects of parking enforcement and management of facilities owned by the City. The City Department of Finance Website states: *“The Bureau of Parking was formed [in] July 2009 as a consolidation of municipal parking functions that were in the former Department of Economic Development; the Departments of Environmental Services, Finance and Police.”* The Bureau oversees several areas of parking, including: on-street parking, Downtown city-owned parking garages and lots, installation and maintenance of parking meters, collection of parking meter revenue, parking enforcement officers, hearings for and collections of fines for parking infractions and municipal code violations, and the Downtown bike locker program.

Parking enforcement officers are tasked with enforcing local municipal parking laws and NYS Vehicle & Traffic law pertaining to parking. The types of parking tickets issued include: more than [12] hours on-street in designated areas (six hours for trucks); less than [5] feet from a driveway; less than [15] feet from a fire hydrant; on the wrong side of a street with alternate parking; on a sidewalk; without displaying a valid handicapped permit; and, without displaying a valid inspection certificate.

Parking violation fine amounts include the following (before NYS surcharge)¹:

- Overtime or expired time for meter, pay station, or non-meter parking: \$25.
- Restricted area: \$35
 - Alternate parking
 - More than 12 inches from curb
 - Less than 20 feet from corner
 - Less than 5 feet from driveway
 - No parking area
 - No-standing zone
 - Keys in vehicle
 - Motor running
 - Bus stop
 - Double parking
 - On sidewalk
- Parking restrictions during snow operations: \$35
- Handicapped zone: \$120
- Less than 15 feet from hydrant: \$90

3.5.7 Circulation + Volumes

Although the Study area is comprised primarily of two-way streets, one-way streets exist along South Union Street, Broadway Street, Elmhurst Street, Wellesley Street, Wilcox Street, Suter Terrace, and the western portion of Luzerne Street. Traffic counts, available from the New York State Department of Transportation (NYSDOT) Traffic Data Viewer website, shows a range of

¹ City of Rochester, Municipal Code, §111-85 Fines and penalties for offenses and fees, accessed July 6, 2016, <http://ecode360.com/8679268>

volumes consistent with other neighborhoods in the City of Rochester. These traffic counts often correspond with larger roads that facilitate cross-city traffic.

Annual Average Daily Traffic (AADT) volumes:

- Monroe Avenue 10,486 - 11,636
- Alexander Street 11,579 - 11,970
- South Union Street 3,397
- Broadway Street 3,893
- South Goodman Street 12,744 - 13,260
- Culver Road 8,722

3.5.8 Geometry

Street widths along Monroe Avenue vary due to right-of-way limitations and to provide both on-street parking and bicycle facilities. However, some travel lane widths reach upwards of 13'-15' along sections of Monroe Avenue from the former Inner Loop to I-490. Right-of-way extents vary from section to section of Monroe Avenue, and on perpendicular arterial roads and neighborhood streets. Pavement conditions range from recently paved/repared roads, to roads needing repair.

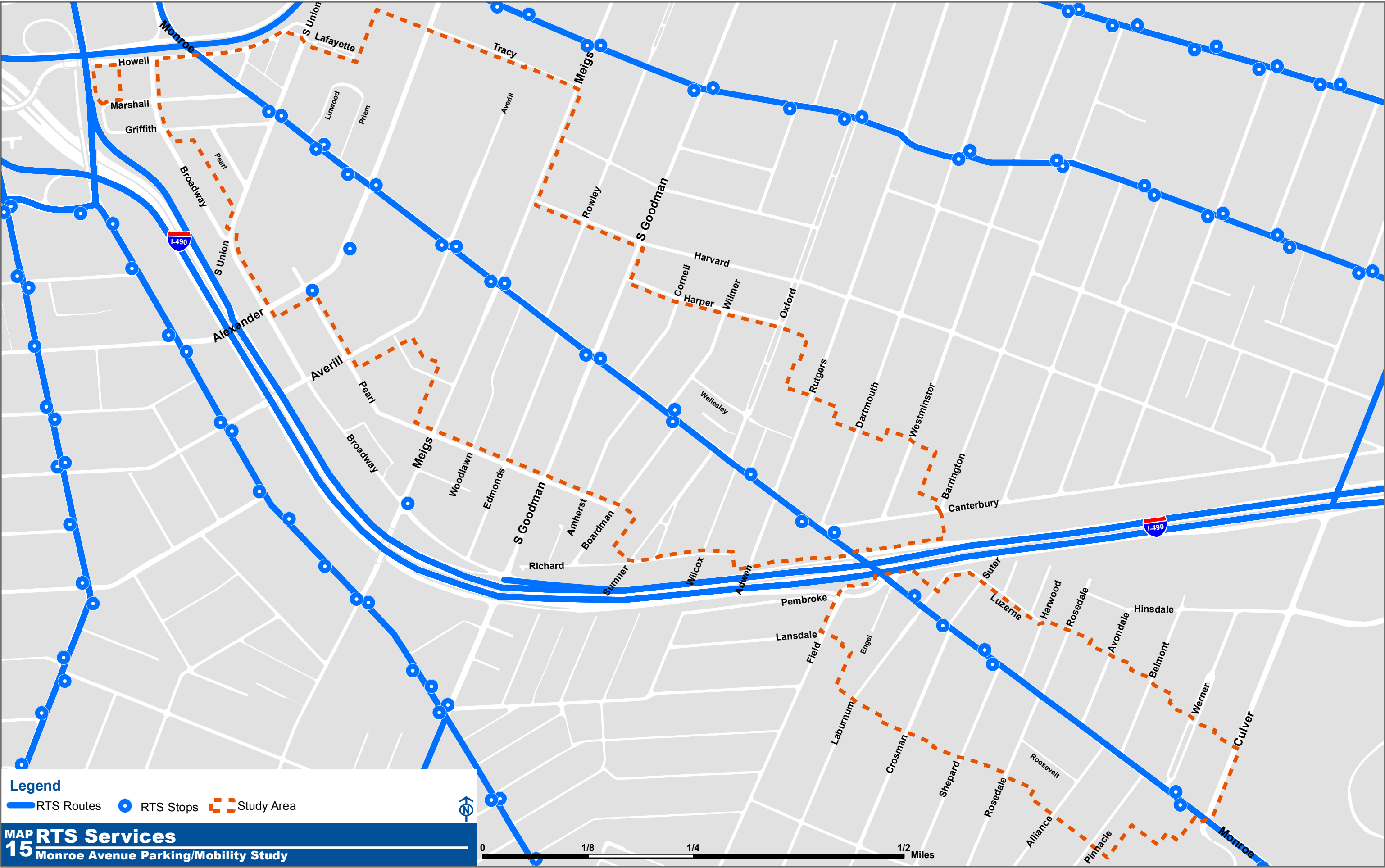
3.6 Transit Conditions

3.6.1 Services/Routes

As previously noted, the primary bus route along the Monroe Avenue Corridor is route 47 and 47x. This route travels to and from the Downtown Transit Center and the Pittsford Loop. Within the Study area, route 47 and 47x do not cross any other transit route. Options for transfer exist at the Downtown Transit Center or at South Winton Road in the Town of Brighton. Map 15 shows the current RTS routes and stops within the Study area.

3.6.2 Stops

Within the Study area are 23 active bus stops. Bus stop signs were in fairly good, clearly legible, condition. Many of these bus stops have artistic-crafted public benches, in fairly good condition, that add to the unique character of Monroe Avenue. However, there are no bus shelters found within the Study area. Map 15 shows the current RTS routes and stops within the study area.



Legend

- RTS Routes
- RTS Stops
- Study Area

3.7 Bicycle/Pedestrian Conditions

3.7.1 Bicycle Routes + Markings

The City of Rochester recently adopted its Bicycle Master Plan (2011) and has been working along Monroe Avenue to build bicycle lanes and sharrows. Bicycle lanes exist along Monroe Avenue from Priem Street to S. Goodman Street. Bicycle Sharrows exist along Monroe Avenue from the former Inner Loop to Priem Street, and from I-490 to Culver Road. A bicycle boulevard exists along Canterbury Road connecting to Monroe Avenue. Street geometry limitations seemed to dictate the use of sharrows over lanes. A “bike box” exists at the intersection of eastbound Monroe Avenue and South Goodman Street. No other on-road bicycle lanes/sharrows exist within the Study area. However, bicycle lanes are planned to provide a continuous route along Monroe Avenue, and several bicycle boulevards, lanes, and sharrows are planned to connect to Monroe Avenue. See Map 16 for existing and proposed bicycle routes within the study area.

Road markings for bike lanes consists of white lines designating the bike lane limits. Within the limits of these markings are white bike symbols. Road markings for sharrows consists of the standard bike sharrow symbol also in white.

For bicycle lanes, signage includes the standard black and white signs with the words “bike lane”. For bicycle sharrows, the black and yellow sign with the words “share the road” does not exist within the Study Area.

3.7.2 Bike Parking

During the inventory data collection phase, 46 publicly available bicycle parking racks were identified within the Study area. Typical bicycle parking racks include inverted-u racks and bicycle-circle racks permanently installed along sidewalks. Since most of these bicycle parking racks are new, their conditions are fairly good. These types of racks have a capacity of two (2) bicycles per rack. That translates to 92 publicly available bicycle parking spaces within the Study area. In addition, some respondents in the survey indicated their employer has bicycle parking facilities indoors. These locations are unknown. Map 16 includes the spatial distribution of publicly available bicycle racks within the Study Area.



3.7.3 Sidewalks

As an older, traditionally designed neighborhood, sidewalks can be found on nearly every street, and on each side. On Monroe Avenue, sidewalks are either adjacent to the road, to parking, or to a tree lawn (green space between sidewalk and curb). Numerous benches, trash receptacles, and street trees can be found along Monroe Avenue and adjacent residential streets. While canopy cover ranges with the age of trees, many young trees have been planted along Monroe Avenue. The location and frequency of these pedestrian amenities is important to provide a friendly, comfortable, interesting, and supportive environment that encourages pedestrian activity.

Conditions of sidewalks varies. Several areas contained uneven pavement sections that would hinder those with impaired mobility. Several storefronts lack accessible routes from the sidewalk, creating another barrier for those with impaired mobility.

From the stakeholder interviews, public survey, and public meetings, several expressed concern over the clearing of snow from sidewalks. Inconsistent and lack of snow removal prohibits pedestrians, reduces access to those with impaired mobility, and reduces access to those using transit. The clearing of snow from roadways often results in the piling of snow on sidewalks and at transit stops. These snow piles reduce access and circulation for all pedestrians. As indicated in the City's Municipal Code, "the person occupying the ground floor of a building and the owner of a building or lot must keep the sidewalks adjoining such building or lot free and clear from all obstructions and from weeds and rubbish."² Furthermore, the Code states "the owner of a building or lot must keep the sidewalks adjoining such building or lot free and clear from snow and ice and must not suffer or permit snow or ice to collected or remain on such sidewalk later than 9:00 am."

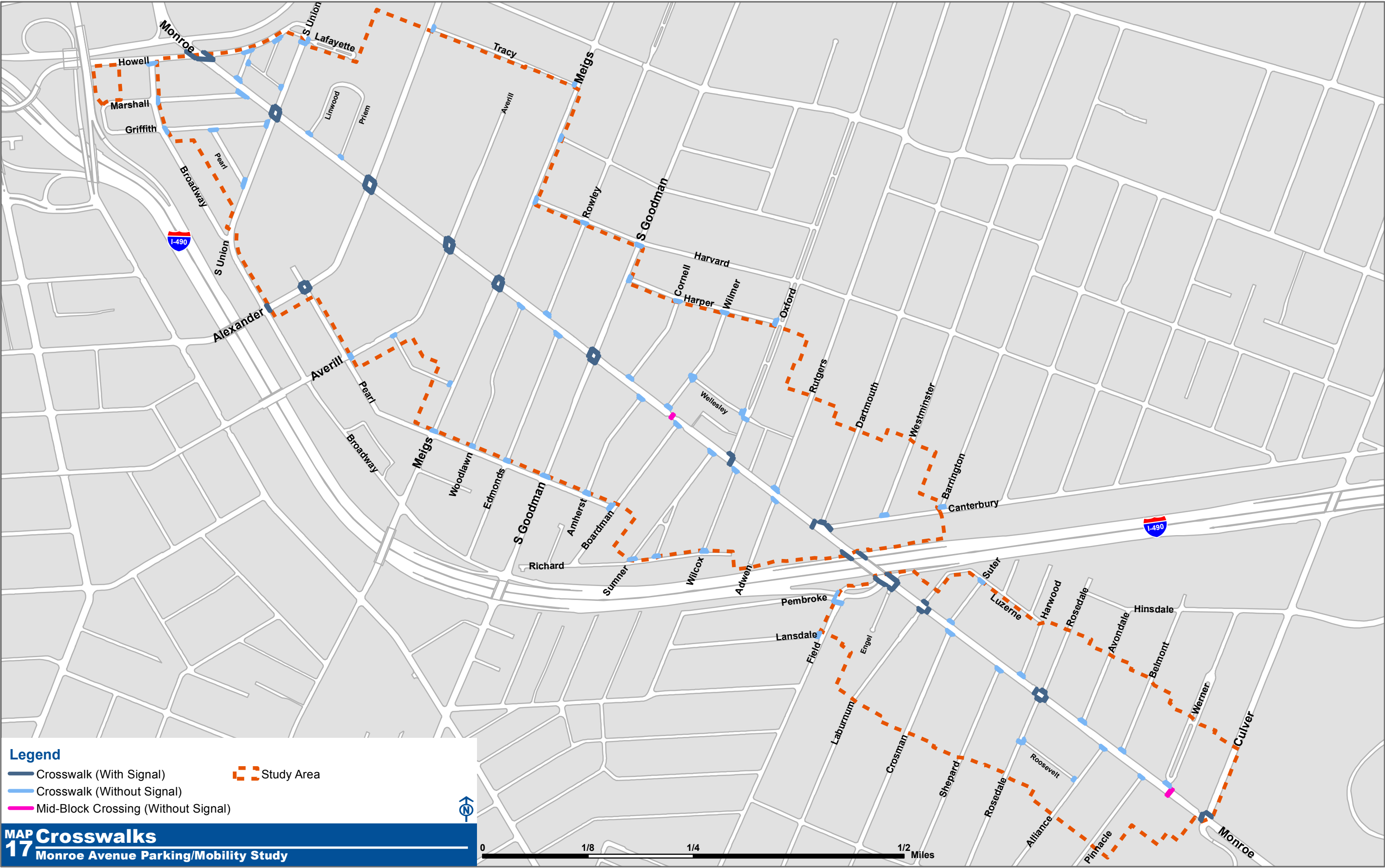
3.7.4 Pedestrian Crossings

Crosswalk facilities found within the Study Area includes signal crosswalks at signalized intersections and two signed mid-block crosswalks. Map 17 shows the location of all crosswalks (with or without markings or signals) and the location of the two mid-block crossings. All pedestrian signals along Monroe Avenue utilize pedestrian countdown timers. Some sections of Monroe Avenue have distances greater than 600 feet between marked crossings which makes using crosswalks and traversing the neighborhood more difficult. These sections include:

- South Union Street to Alexander Street
- Meigs Street to South Goodman Street
- Oxford Street to Dartmouth Street
- Laburnum Crescent to Rosedale Street
- Rosedale Street to Werner Park

The condition of these crosswalks varies throughout the corridor. Crosswalk markings are typically found at lighted intersections. Those that do exist have markings that are nearly worn off. Side streets, even those intersecting Monroe Avenue, rarely have marked crosswalks. MCDOT indicated crosswalk markings are refreshed annually as needed.

² City of Rochester, Municipal Code, §104-11 Responsibility for maintaining sidewalks free of obstructions and snow and ice, Accessed January 12, 2017, <http://ecode360.com/8678621>



Legend

- Crosswalk (With Signal)
- Crosswalk (Without Signal)
- Mid-Block Crossing (Without Signal)
- Study Area

4.0 PARKING SUPPLY + DEMAND ANALYSIS

4.1 Current Parking Supply

Parking supply within the study area varies depending on several factors including capacity, location, and regulation. Minimum parking requirements in the City's Municipal Code also affect the parking supply for existing and future development. The following sections detail each of these factors.

4.1.1. Capacity

Table 12 to the right shows the total supply of on-street and off-street parking within the study area. The capacity of on-street parking is contingent on the parking regulation(s) for each segment. Parking segments along Monroe Avenue average 4 spaces per segment. Parking segments off of Monroe Avenue vary depending on the length of the street and frequency of curb cuts for private driveways. The number of parking spaces for each type of parking regulation is detailed in section 3.5 Vehicular conditions.

| Table 12 Total Parking Supply | | |
|-------------------------------|--------------|-------------|
| | Spaces | Percent |
| On-Street | 1,591 | 27% |
| Off-Street | 4,402 | 73% |
| Total | 5,993 | 100% |

The capacity of off-street parking varies across the study area. Table 13 shows the number of lots by capacity. When examining the capacity of off-street parking, 93.6% of the parking lots within the study area have fewer than 50 spaces per lot. 14.4% of the parking lots within the study area have fewer than 5 spaces per lot. The two largest off-street parking facilities are the Alexander Park parking garage (1,500 spaces) and the Monroe Square parking lot (567 spaces). The next largest off-street parking facility is a parking lot for an apartment building on Alexander Street (124 spaces) followed by the Blessed Sacrament Church parking lot (112 spaces).

| Table 13 Number of Lots by Capacity | |
|-------------------------------------|----------------|
| Capacity | Number of Lots |
| 100 + | 4 |
| 75 - 99 | 1 |
| 50 - 74 | 3 |
| 25 - 49 | 23 |
| 5 - 24 | 76 |
| Less than 5 | 18 |
| Total | 125 |

4.1.2. Location

Analysis of the location of parking within the study area shows the uneven distribution of on-street and off-street parking. Map 4 on page 34 shows the spatial distribution of parking and Table 14 shows the number of parking spaces within the sub-areas. The sub-areas represent 5-minute walking distances around four intersections with clustered development. Because the sub-areas are measured by walking distance, they partially overlap each other. This results in the figures below adding to greater than the total number of on-street and off-street parking spaces for the study area.

| Table 14 Parking Supply by Sub-Area | | |
|-------------------------------------|-----------|------------|
| | On-Street | Off-Street |
| Marshall Street + Monroe Avenue | 252 | 3,113 |
| S Goodman Street + Monroe Avenue | 646 | 2,270 |
| Canterbury Road + Monroe Avenue | 541 | 580 |
| Belmont Street + Monroe Avenue | 427 | 212 |

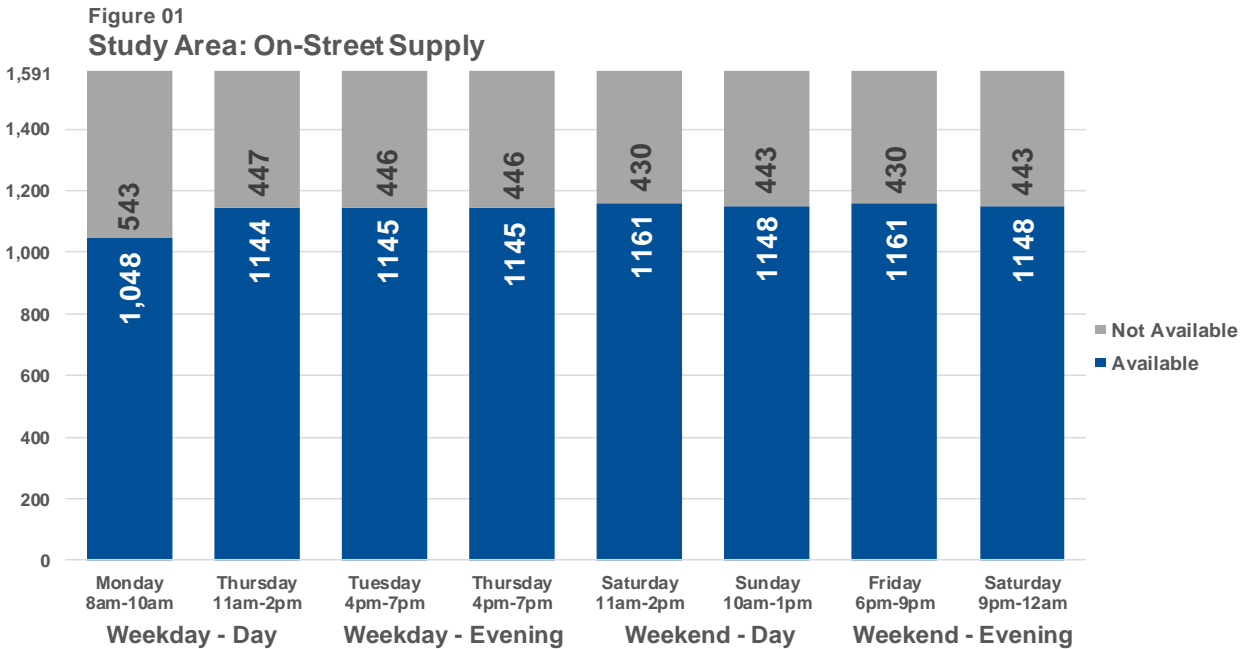
The table shows that parking is not evenly distributed. The Marshall Street sub-area has considerably fewer on-street spaces. This is partly due to the study area boundary, but is also due to the lack of on-street parking along most of South Union Street and Alexander Street. Monroe Avenue between Alexander Street and Averill Avenue also has a lack of on-street parking. The Marshall Street and South Goodman Street sub-areas have comparatively higher off-street parking due to the presence of large parking lots and the Alexander Park parking garage. The Canterbury Road and Belmont Street sub-areas have a comparative supply of on-street parking, but the Belmont Street sub-area has a comparatively reduced supply of off-street parking.

In several areas of the study area, access to parking supply is affected by the former Inner Loop and I-490. These limited access highways represent vehicular and pedestrian access barriers (physical and visual) to additional parking supply. While bridges cross the former Inner Loop and I-490, they lack the connectivity that the traditional street grid system provides within the neighborhoods.

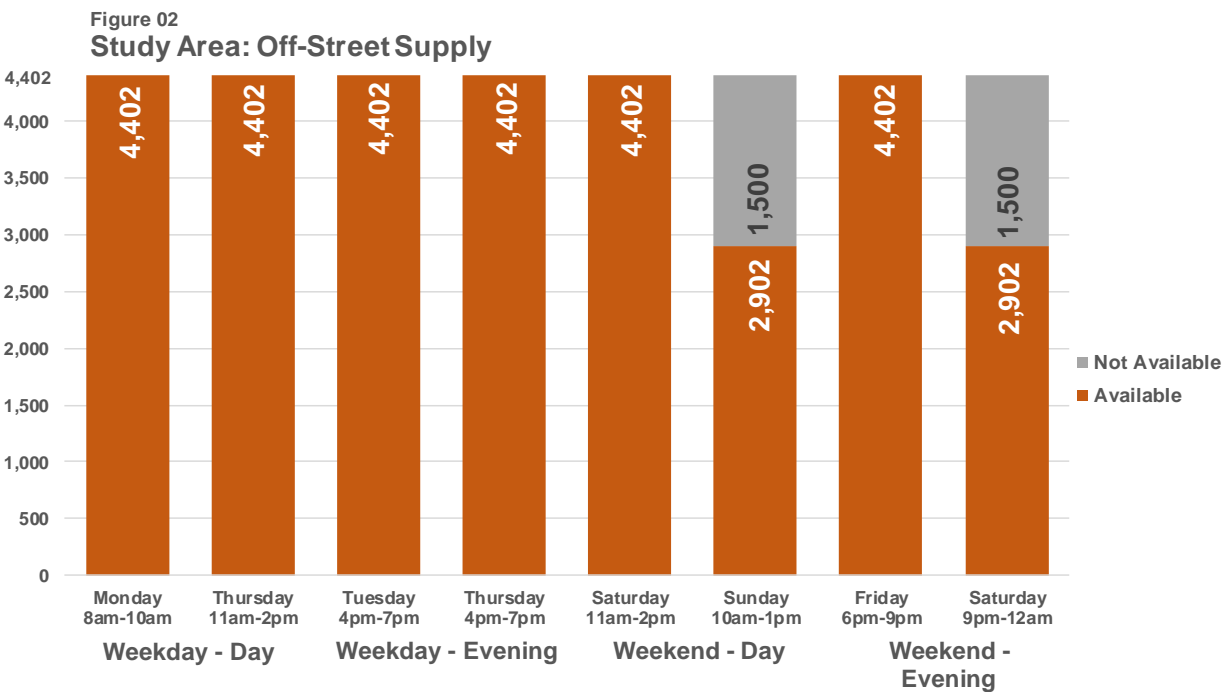
4.1.3. Regulation

Regulations associated with parking affects both on-street and off-street supply availability. The types of on-street and off-street regulations are described in section 3.5 Vehicular Conditions. Due to the on-street parking regulations, the total parking supply previously noted in Table 12 is not reflective of the parking available at a given time of day or day of week.

Across the counting periods, the availability of on-street parking is fairly consistent. Figure 01 below shows the availability of on-street parking for the study area. Regulations that affect supply include: alternating parking regulations (Map 08), time span regulations (Map 07), and street cleaning regulations (Map 09). On-street availability during the Monday 8am – 10am counting period was slightly lower than other counting periods. This is due to street cleaning regulations along Oxford Street and Monroe Avenue. Calculated utilization percentages for on-street parking only consider the available number of spaces for each counting period, and not the total number of spaces noted previously.



The availability of off-street parking varies across counting periods. Figure 02 below shows the availability of off-street parking facilities. Most parking facilities are available at all times of the day and week; although varying user-restrictions exist across the entire study area. Notable exceptions occur when the Alexander Park parking garage closes at night and on weekends. The effect of removing 1,500 spaces from off-street supply is documented in the utilization profiles to follow. Calculated utilization percentages for off-street parking only consider the available number of spaces for each counting period, and not the total number of spaces noted previously.



4.1.4 Minimum Off-Street Parking Requirements

The City of Rochester uses minimum off-street parking requirements for most zoning districts, determined by land use. These requirements are described in Chapter 120. Section 173 (Off Street Parking) of the City's Municipal Code. Using these regulations, an analysis was conducted to determine whether a parking surplus or deficit existed according to the minimum off-street parking requirements for each zone and/or land use. While the utilization counts provide more detailed and timely data on current demand, this analysis can aid in determining the effectiveness of parking requirements.

The City's Bureau of Planning & Zoning identified property addresses for each parcel along Monroe Avenue within the study area using its Geographic Information System (GIS). With assistance from the City's Bureau of Assessment, property data associated with each address was collected and compiled from a variety of sources. These sources include the City's Building Information System (BIS), Certificate of Occupancy records, GIS parcel information and other assessment and City Clerk data. The data compiled included land use, building type, legal use, number of commercial and/or residential units, gross floor area square footages by type of use, and zoning district designations for each property. This data was used to generate the minimum number of required parking spaces based on existing parking requirements set forth in the City's Municipal Code.

From the parcel data collected, the City Municipal Code's minimum off-street parking requirements were applied to each parcel along Monroe Avenue within the study area. While most of the properties could be directly calculated from available data, the lack of information for some properties required assumptions to be made in order to calculate the required number of spaces. These assumptions include:

- **Places of worship** require one parking space per four seats. This information was unknown. The required number of spaces reflects the current number of spaces per place of worship.
- **School properties** are required to have 2 spaces per classroom or 1 space per 10 students plus 2 spaces per classroom. The information needed to calculate the required number of spaces is unavailable. The required number of spaces reflects the current number of spaces at each school property.
- Some **multi-family residential** properties did not include information on the number of 1-bedroom, 2-bedroom, or 3-bedroom units per property. Part of the dataset available from the City of Rochester included information on the number of units per property (2-family, 3-family, etc.). With this information, one space per unit was used as the required number.

Table 15 shows the off-street parking required according to the City's Municipal Code, the current inventory of off-street parking, and the difference between these two figures. It is noted that the sub-areas overlap each other which results in the figures in Table 15 adding to greater than the total number of off-street parking spaces for the study area.

| Table 15 Off-Street Parking Required by Zoning | | | | |
|--|-------------------|-----------------|------------|------|
| | Current Inventory | Zoning Required | Difference | |
| Parcels facing Monroe Avenue | 3,453 | 3,337 | 116 | 3% |
| Sub-Areas | | | | |
| Marshall Sub-area | 2,346 | 1,530 | 816 | 42% |
| S Goodman Sub-area | 2,257 | 1,750 | 507 | 25% |
| Canterbury Sub-area | 472 | 864 | -392 | -59% |
| Belmont Sub-area | 208 | 361 | -153 | -54% |

When evaluated for the entire study area, there is a 3% surplus of parking. When evaluated at the sub-area level, however, there are relatively large differences between the required spaces per the City Municipal Code and inventoried spaces. The Marshall and S. Goodman sub-areas show a surplus of parking, 53% and 29%, respectively. Both of these areas include the two largest parking facilities (Alexander Park parking garage and Monroe Square parking lot). Both the Canterbury and Belmont sub-areas show a deficit of parking, -45% and -42%, respectively.

4.2 Current Parking Demand (Utilization)

Many factors influence parking demand (utilization). Rates of utilization vary by hourly, daily, weekly, and monthly trends. Providing a comprehensive picture of parking utilization is important to evaluate parking demand. This study focuses on hourly and daily trends with an understanding that future longer-term efforts are needed to evaluate fluctuations in weekly and monthly trends. These longer-term trends, however, should be evaluated and understood in the context of planning policy and utilizing precedents from similar municipalities. Taking into account social, economic, and environmental considerations, contemporary planning discourages municipalities from planning and designing parking that accommodates annual peak demand.¹ The following describes the methodology used and the results of the data gathered to determine parking utilization..

4.2.1. Methodology

Counting Periods

To analyze the hourly and daily trends, several time periods of the day and days of the week were chosen to provide comparable data. Counting times were chosen for two periods during the weekday daytime, two periods during the weekday evening time, two periods during the weekend daytime, and two periods during the weekend evening time. These periods were between two and three hours long depending on the time of day the counts were performed, weather conditions, and traffic. Data for the number of on-street and off-street parked cars was captured once per counting period. Counting periods are outlined in the Table 16 below.

Table 16: Study Area Counting Periods

Weekday Counting Periods

| Daytime | | | On-Street | Off-Street |
|----------|----------|------------------|-----------|------------|
| Monday | 8am-10am | January 25, 2016 | Map 18 | Map 20 |
| Thursday | 11am-2pm | January 21, 2016 | | |
| Evening | | | Map 18 | Map 20 |
| Tuesday | 4pm-7pm | January 19, 2016 | | |
| Thursday | 4pm-7pm | January 21, 2016 | | |

Weekend Counting Periods

| Daytime | | | On-Street | Off-Street |
|----------|----------|------------------|-----------|------------|
| Saturday | 11am-2pm | January 23, 2016 | Map 19 | Map 21 |
| Sunday | 10am-1pm | January 24, 2016 | | |
| Evening | | | Map 19 | Map 21 |
| Friday | 6pm-9pm | January 15, 2016 | | |
| Saturday | 9pm-12am | January 23, 2016 | | |

¹ Litman, Todd. *Parking Management Best Practices*. Chicago, Ill.: American Planning Association, 2006. Print.

After the study area had been established and initial data collection completed, it was decided per the City's direction that the Wadsworth Square parking lot, located on Marshall Street, would be incorporated into the study area. While this lot was outside the original study area boundary, it represents an important publicly accessible supply of parking within the area. The same method used for choosing the original counting periods was applied for data collection in the Wadsworth Square lot. Counting periods for the Wadsworth Square lot are outlined to the right in Table 17. Once data had been collected, it was incorporated into the study. While this data collection effort occurred approximately two months after the initial effort the quality of the data remained consistent.

Table 17: Wadsworth Square Counting Periods

| Weekday Counting Periods | | |
|--------------------------|---------|----------------|
| Daytime | | |
| Monday | 9am | March 21, 2016 |
| Thursday | 12:30pm | March 24, 2016 |
| Evening | | |
| Tuesday | 5:30pm | March 22, 2016 |
| Thursday | 5:45pm | March 24, 2016 |
| Weekend Counting Periods | | |
| Daytime | | |
| Saturday | 11am | March 19, 2016 |
| Sunday | 11am | March 20, 2016 |
| Evening | | |
| Friday | 9:30pm | March 25, 2016 |
| Saturday | 11pm | March 19, 2016 |

Analysis Methods

Often, views and perceptions of parking problems coincide with specific areas, which are then transcribed to parking problems across an entire neighborhood. While data was evaluated at the study area level, the analysis used several methods to provide a closer look at the spatial and functional variations in utilization. The following methods were used to analyze the data:

- **On-street vs off-street parking:** On-street and off-street parking was evaluated separately across all methods of analysis. On-street and off-street parking have uniquely separate characteristics that require different methods and approaches when determining suitable recommendations.
- **Parking availability:** Parking regulations alter the actual supply (availability) of on-street and off-street parking. Only the available number of spaces allowed by regulation per counting period were used in calculating utilization percentages.
- **Counting periods:** The differences and commonalities between counting periods is critical for determining the typical demand for on-street and off-street supply.
- **Land uses:** Land uses across the study area provide insight into the effect of off-street parking regulations on supply and demand.
- **Sub-areas:** Sub-areas were created to evaluate the spatial variations in land use, supply, and utilization. These areas were defined by applying a 1,320 foot radius around major intersections with clustered development. Parking studies commonly use 1,320 feet as the average distance a person is able to walk in 5-minutes. In some cases, however, a 5-minute walk is greater than the study area boundary. Thus, calculations are limited to the study area. Map 4 on page 34 shows the sub-areas and the corresponding 5-minute walking radii. The following sub-areas were defined:
 - Marshall Street and Monroe Avenue
 - South Goodman Street and Monroe Avenue
 - Canterbury Road and Monroe Avenue
 - Belmont Street and Monroe Avenue

Utilization Thresholds

Views and perceptions of available parking vary from person to person. Survey responses reflected this difference in views of parking throughout the study area. Through the evaluation of research studies, and a comparison with other parking and mobility studies, the following represents the quantifiable methods used for analysis of demand.²

- **For on-street parking**, utilization greater than or equal to 85% - 90% is typically viewed as having reached its functional capacity. This percent translates to 1 space available out of every 8 spaces, or 1 space available out of every 10 spaces, respectively. An optimal range of parking utilization is typically viewed between 10% - 15% below the established threshold of functional capacity. For this study, on-street utilization beyond 85% is viewed as having reached its functional capacity, with an ideal range of parking utilization between 70% - 85%.
- **For off-street parking**, utilization greater than or equal to 90% is typically viewed as having reached its functional capacity. Off-street parking suggest higher utilization due to longer periods of parking and less frequent turnover. This percent translates to 1 space available out of every 10 spaces. For this study, off-street utilization beyond 90% is viewed as reaching its functional capacity, with an ideal range of parking utilization between 75% - 90%.

² Shoup, Donald C. *The High Cost of Free Parking*. Chicago: Planners Press, American Planning Association, 2011.
Litman, Todd. *Parking Management Best Practices*. Chicago: Planners Press, American Planning Association, 2006.
Annual Report 2015 On-Street Paid Parking Occupancy, Seattle Department of Transportation, Seattle, WA, 2015
Comprehensive Parking Assessment Downtown Buffalo New York, City of Buffalo, NY, 2008
Parking Supply and Demand Analysis Final Report, City of Portsmouth, NH, 2012
Huntington Village Parking Study, Huntington, NY, 2013

4.2.2. Utilization Profiles

The following utilization profiles were created to evaluate parking demand (utilization) within the study area, sub-areas, and by land use. The profiles examine and compare the different counting periods and the spatial distribution of demand (utilization). Using these different levels of analysis provides a more broad understanding of demand to better inform the needs and opportunities assessment and the parking and mobility recommendations.

Utilization Profile: Study Area

- On-street parking utilization is lowest during the weekday daytime.
- On-street parking utilization is at its highest during the weekend evening time. Both counting periods reach 75% utilization.
- All on-street parking utilization periods are below the 85% threshold.
- Off-street parking utilization is highest during the weekday daytime.
- Off-street parking also shows higher demand on Saturday evening and Sunday during the day. It is noted that these higher utilization rates occur at the same time the Alexander Park parking garage is closed.
- All off-street parking utilization periods are below the 75%-90% target range.

Figure 03
Study Area: On-Street Utilization

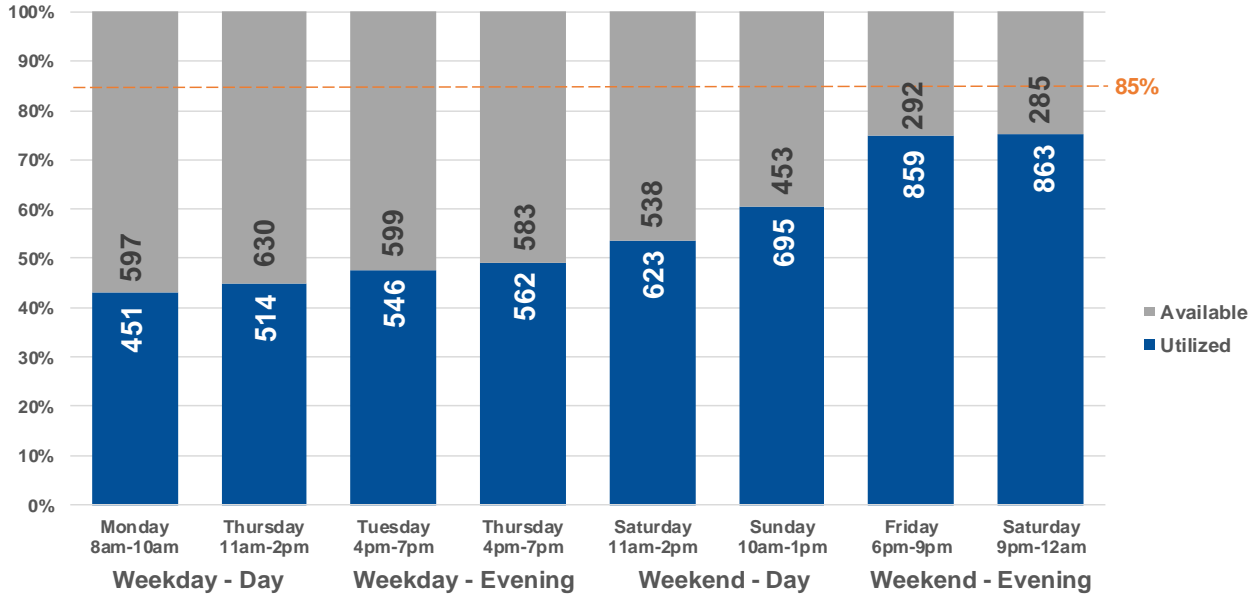
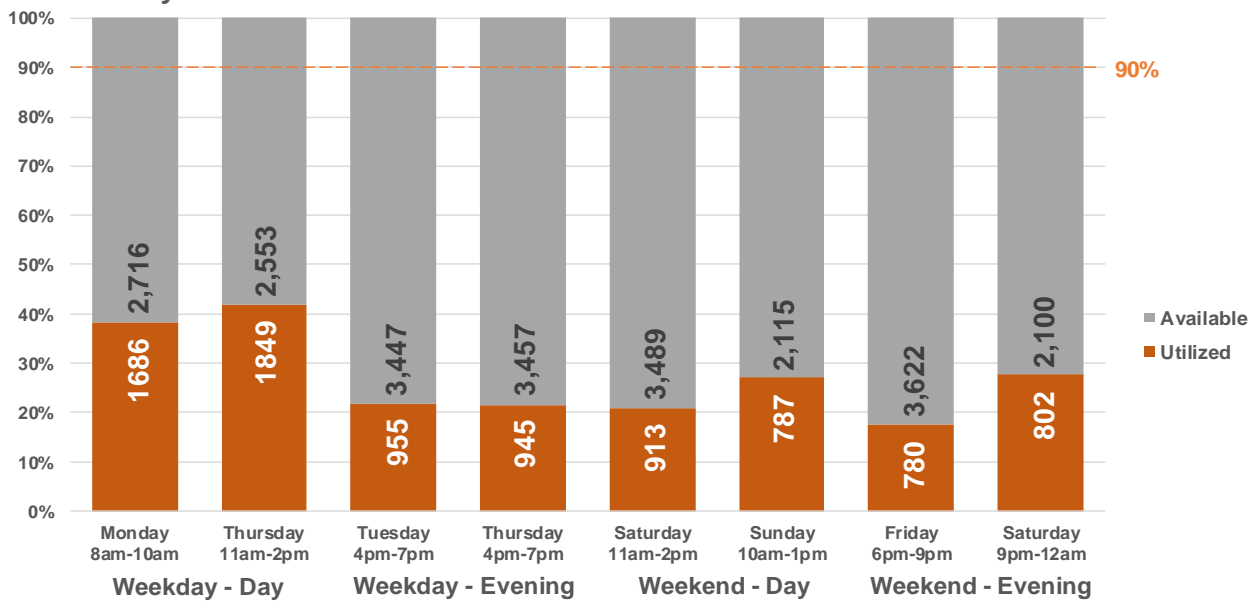


Figure 04
Study Area: Off-Street Utilization



Utilization Profile: Study Area Spatial Distribution

Maps were created that show the spatial distribution of on-street and off-street demand (utilization) across all counting periods. While the previous graphs showed no counting period for on-street and off-street exceed the utilization thresholds, the following maps indicate localized areas where utilization not only exceeds these thresholds, but exceeds legal capacity. During public meetings, utilization “heat maps” were presented that graphically show the areas of highest observed utilization. These heat maps are included in Appendix D. The following summaries examine on-street and off-street demand (utilization) by both weekday and weekend counting periods.

On-Street Weekday Utilization

Overall

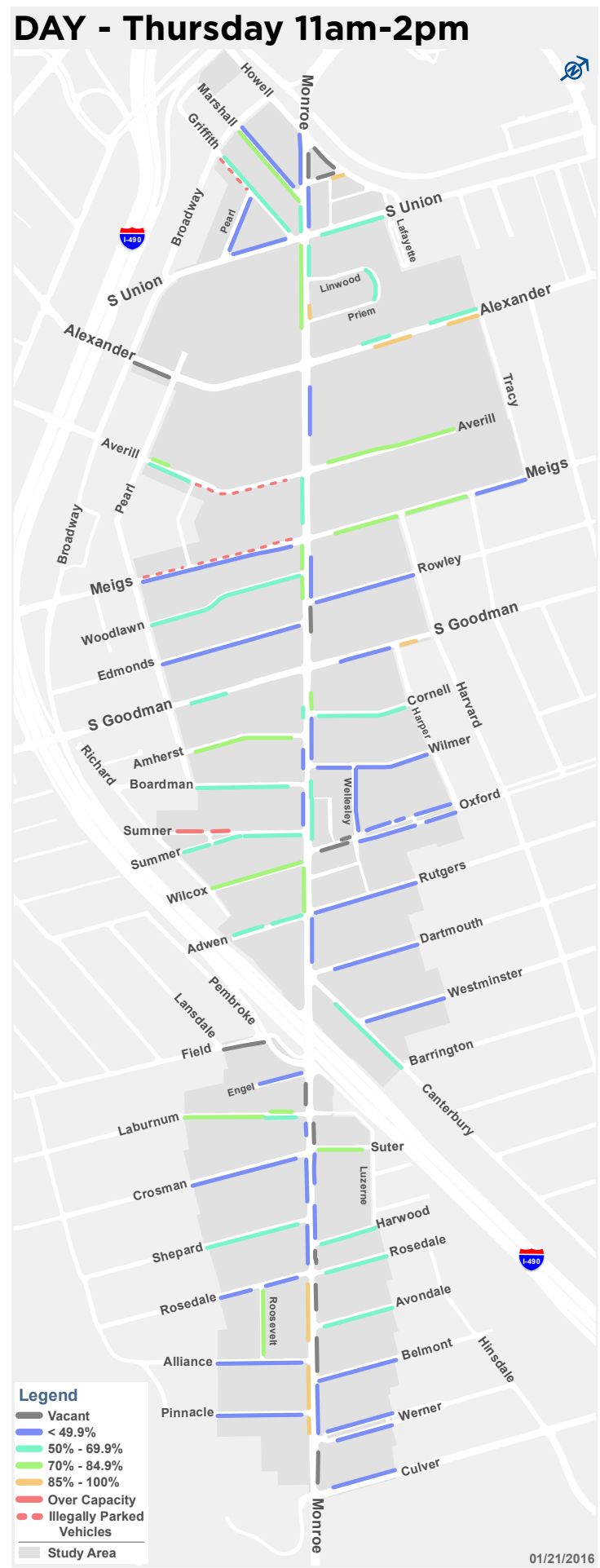
- Streets with high demand and over capacity are adjacent to streets with below 50% capacity.
- High demand streets did not show consistent high demand across counting periods.

Daytime

- Daytime high demand on Averill Avenue and Alexander Street, north of Monroe Avenue, is likely due to the proximity of the offices at Alexander Park. The Alexander Park parking garage, however, is below the target capacity during both weekday daytime counting periods.
- Daytime high demand on Laburnum Crescent may be due to the proximity to the office building at the corner of Laburnum Crescent and Monroe Avenue. The parking lot associated with that office building, however, is below the 90% utilization threshold.
- Street cleaning regulations were not being followed on the south side of Monroe Avenue from I-490 to Werner Park during the Monday 8am-10am counting periods.

Evening

- Evening high demand and over capacity is seen on unregulated streets: Sumner Street, Wilcox Street, Adwen Place, and Roosevelt Street.
- Vehicles were slow to switch sides during alternating parking times. During the Tuesday and Thursday counting periods from 4pm-7pm, a total of 110 vehicles had not made the switch for alternating parking. Switching problems were spatially clustered on the south side of Monroe Avenue from Meigs Street to Sumner Street.



On-Street Weekend Utilization

Overall

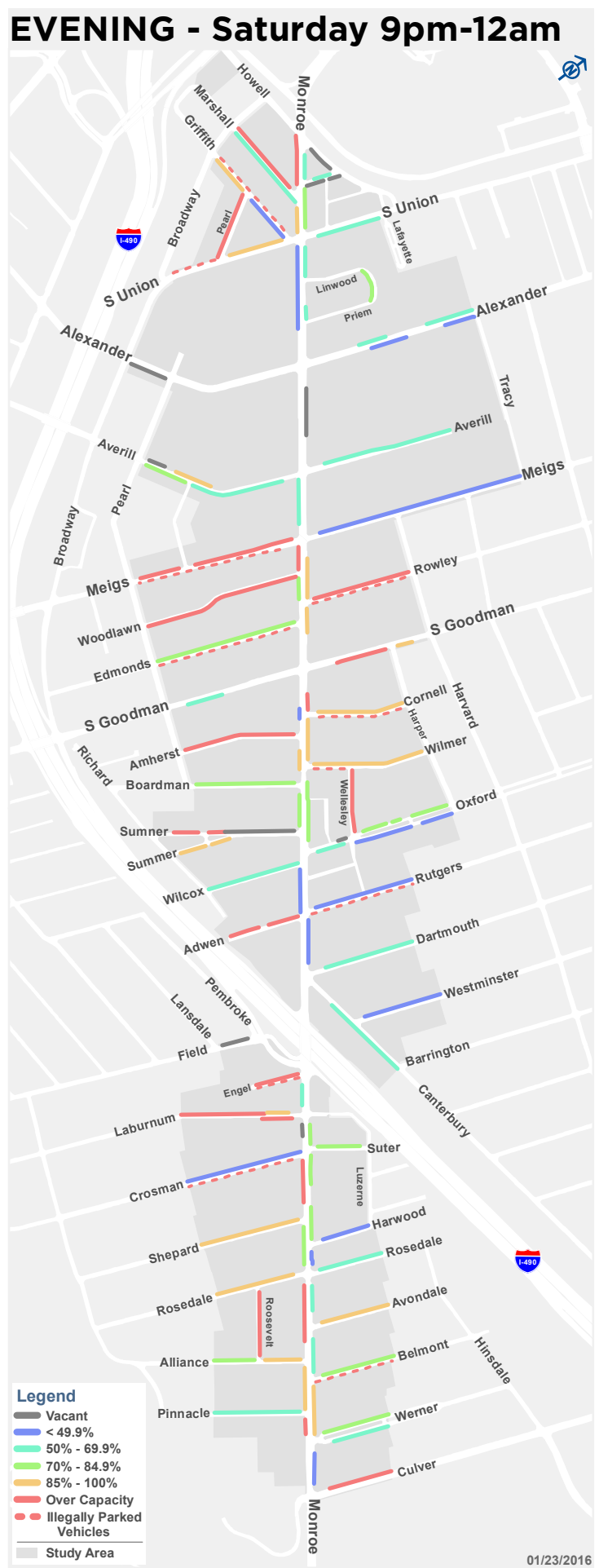
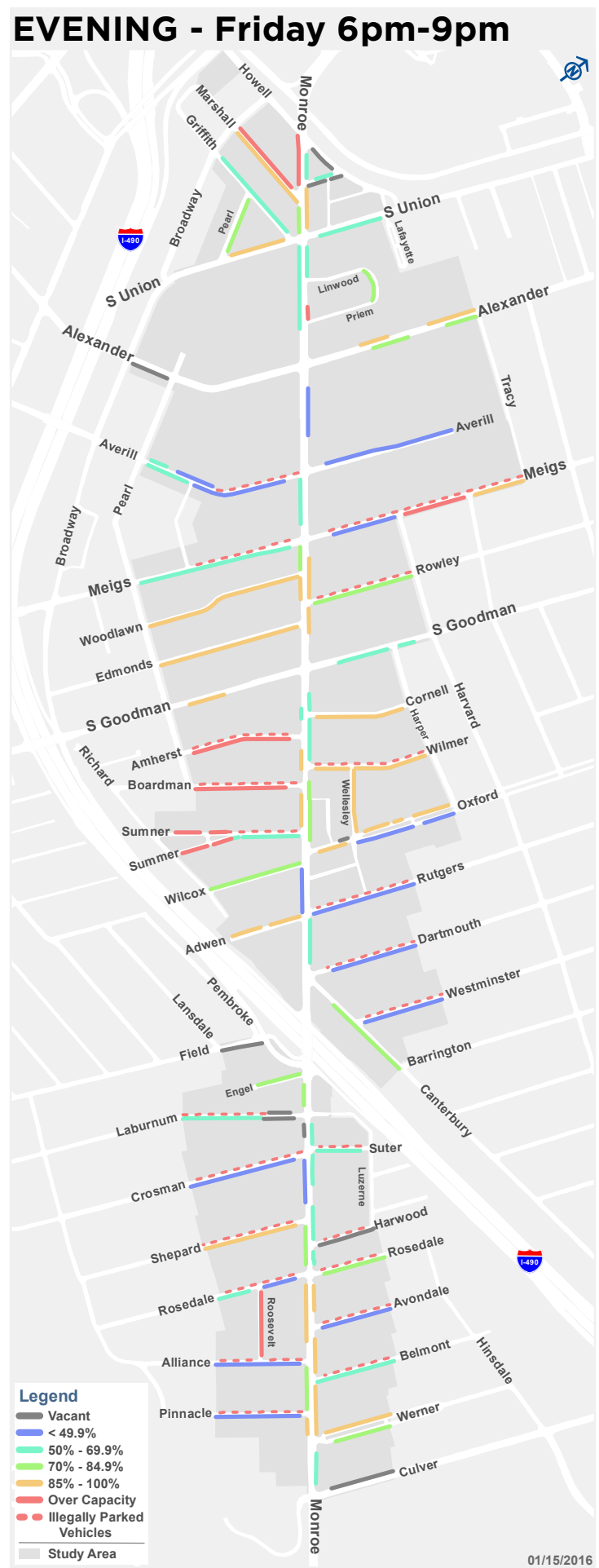
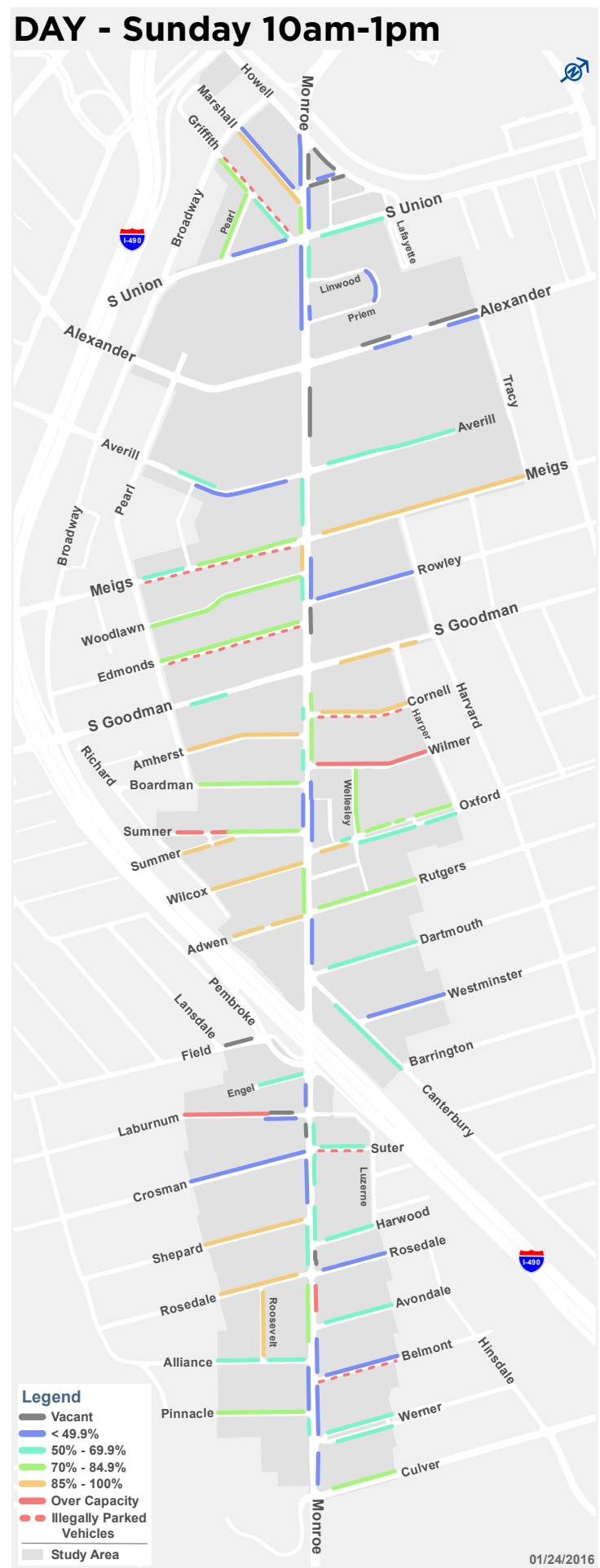
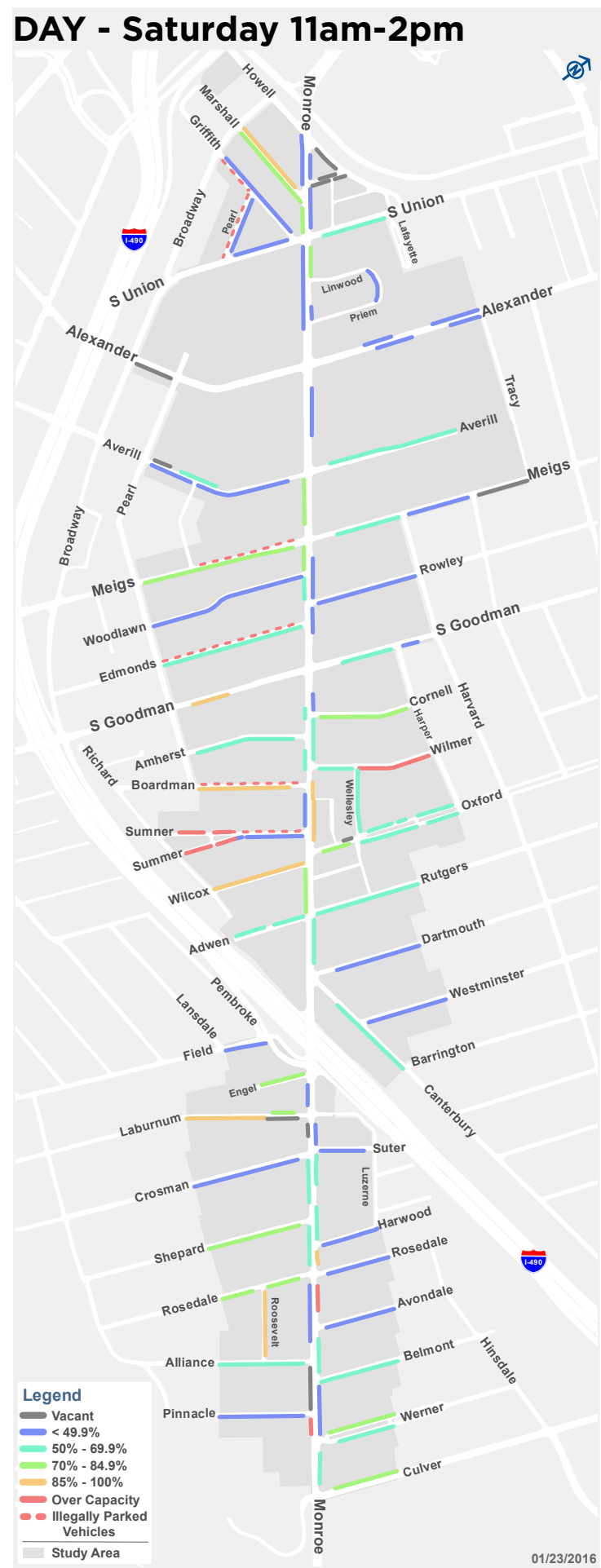
- Some high demand and over capacity streets are within a 1-3 block walk to additional parking.
- Illegal parking is seen across counting periods regardless of alternating parking regulations.
- Howell Street to South Union Street showed a mixture of utilization across counting periods from over capacity to less than 50% utilization.

Daytime

- Daytime high demand and over capacity is seen on several streets. Most of these streets, however, have available parking capacity within a 1-3 block walk.
- During the Saturday daytime counting period, high demand and over capacity was seen from Boardman Street to Wilcox Street, south of Monroe Avenue. This cluster, however, had capacity available within a 1-3 block walk.
- During the Sunday daytime counting period, a cluster of parking utilization is seen from Meigs Street to Rutgers/Adwen. This cluster shows many streets within the target utilization of 70%-85%, and several streets above the 85% threshold.
- During the Sunday daytime counting period, a cluster of over capacity is seen from Shepard Street to Roosevelt Street, south of Monroe Avenue. This cluster, however, has available parking within 1 block in each direction.

Evening

- Several streets with utilization above 85% and streets over capacity have available parking within a 1-3 block walk.
- During the Friday counting period, most alternating streets contained vehicles that had not made the switch.
- The north side of Monroe Avenue from Oxford Street to Canterbury Road shows utilization below 50% and 70%.



Off-Street Weekday Utilization

Overall

- While overall utilization is low, concentrations of higher utilization is seen across counting periods in the area from Wilmer Street to Laburnum Crescent.
- The YMCA/Library lots are highly utilized across most counting periods.

Daytime

- Overall, the highest utilization for the study area was during the weekday daytime: 40%.
- Both daytime counting periods show a concentration of utilization between 50-74.9% west of Averill Avenue.
- Both daytime counting periods show most parking lots from Averill Avenue to Oxford Street are below 50% utilized.
- The Wadsworth Square public parking lot was utilized 13% during the Monday daytime count, and 21% during the Thursday daytime count.
- The Alexander Park parking garage was utilized 50% during the Monday daytime count, and 41% during the Thursday daytime count.

Evening

- Overall, parking during the evening counting periods was approximately 20%. This is half the utilization compared to daytime utilization.
- The Wadsworth Square public parking lot was utilized less than 10% during both evening counts.
- The Monroe Square parking lot and Alexander Park parking garage were both utilized less than 15% during both counting periods.
- A concentration of lots within the target range, and over capacity, is seen between Oxford Street and Laburnum Crescent.

DAY - Monday 8am-10am



DAY - Thursday 11am-2pm



EVENING - Tuesday 4pm-7pm



EVENING - Thursday 4pm-7pm



Off-street Weekend Utilization

Overall

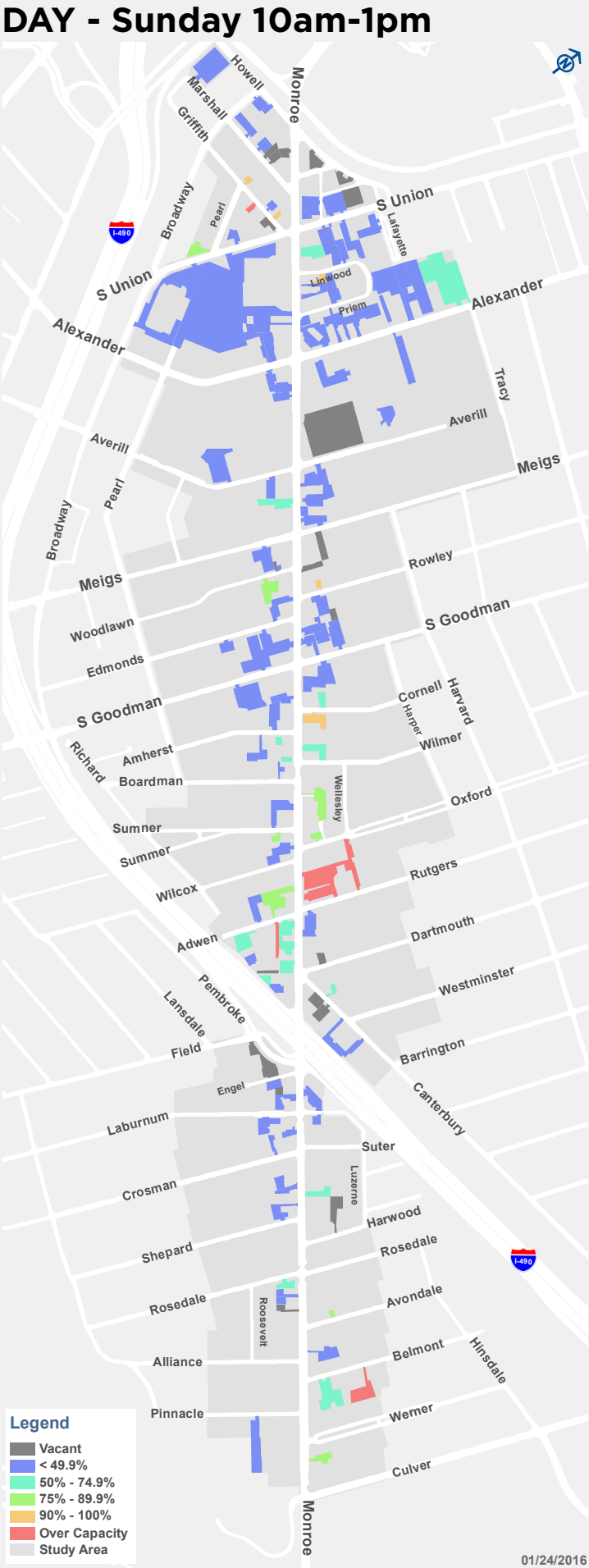
- Overall, there is a greater distribution of parking lots with higher utilization within the study area compared to weekday counting periods.
- Overall, parking lots with high demand and over capacity are located adjacent to lots below the target utilization range of 75%-90%.

Daytime

- Similar to the weekday counting periods, higher utilization is seen during the weekend daytime counting periods from Cornell Street to I-490.
- Higher utilizations are seen for the Blessed Sacrament Church on Saturday and Sunday.
- The Wadsworth Square public parking lot was utilized less than 5% during both daytime counts.
- The Alexander Park parking garage was utilized 3% during the Saturday daytime count, and was closed during the Sunday daytime count.
- The Monroe Square parking lot was utilized 13% during the Saturday daytime count, and 4% during the Sunday daytime count.

Evening

- Although the Alexander Park parking garage was closed after 9:30pm on Friday, no impact is noticeable in the surrounding area for off-street and on-street parking
- The Wadsworth Square public parking lot was utilized less than 10% during both evening counts.



Utilization Profile: Sub-Areas

Graphs were created that show on-street and off-street utilization within the defined sub-areas. While the previous maps showed several segments of on-street parking above the utilization threshold, the following graphs indicate no sub-area crosses the on-street utilization threshold of 85% or the off-street utilization threshold of 90%.

Marshall Street and Monroe Avenue

- On-street parking utilization is consistently low during the weekday counting periods and the weekend daytime counting period.
- On-street parking utilization is at its highest during the weekend evening time.
- All on-street parking utilization periods are below the 85% threshold.
- Off-street parking utilization is highest during the weekday daytime.
- Off-street parking also shows slightly higher demand on Saturday evening and Sunday during the day. These increases occur when the Alexander Park parking garage is closed.
- All off-street parking utilization periods are below the 75%-90% target range.

Figure 05

Marshall Street + Monroe Avenue

Parking utilization within 5 minute walk

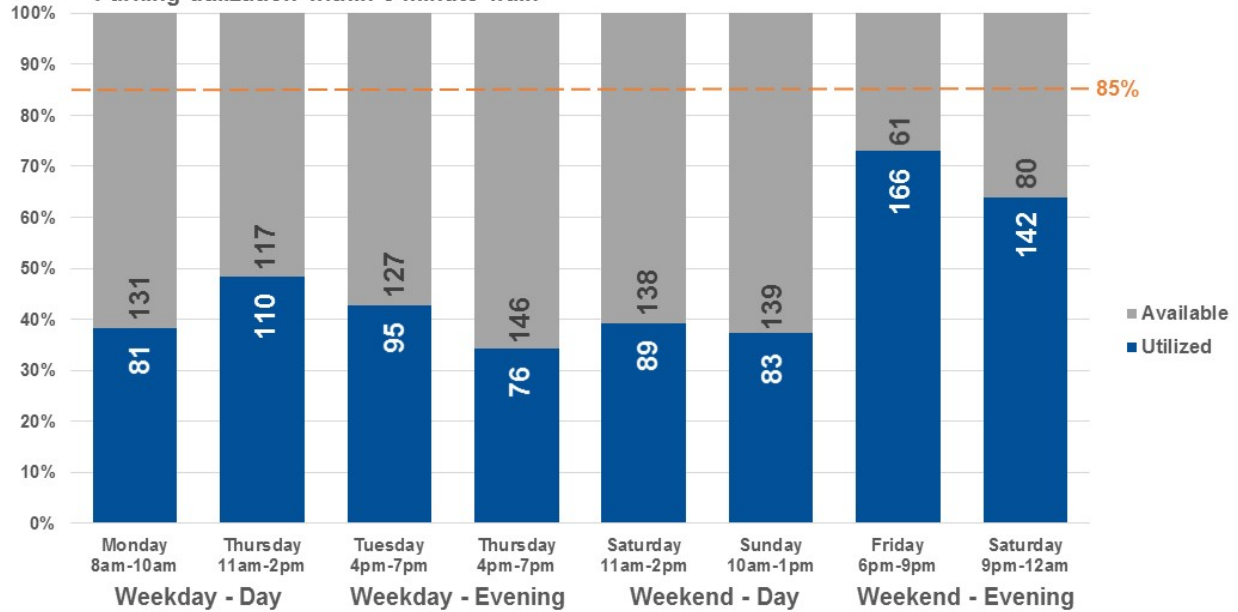
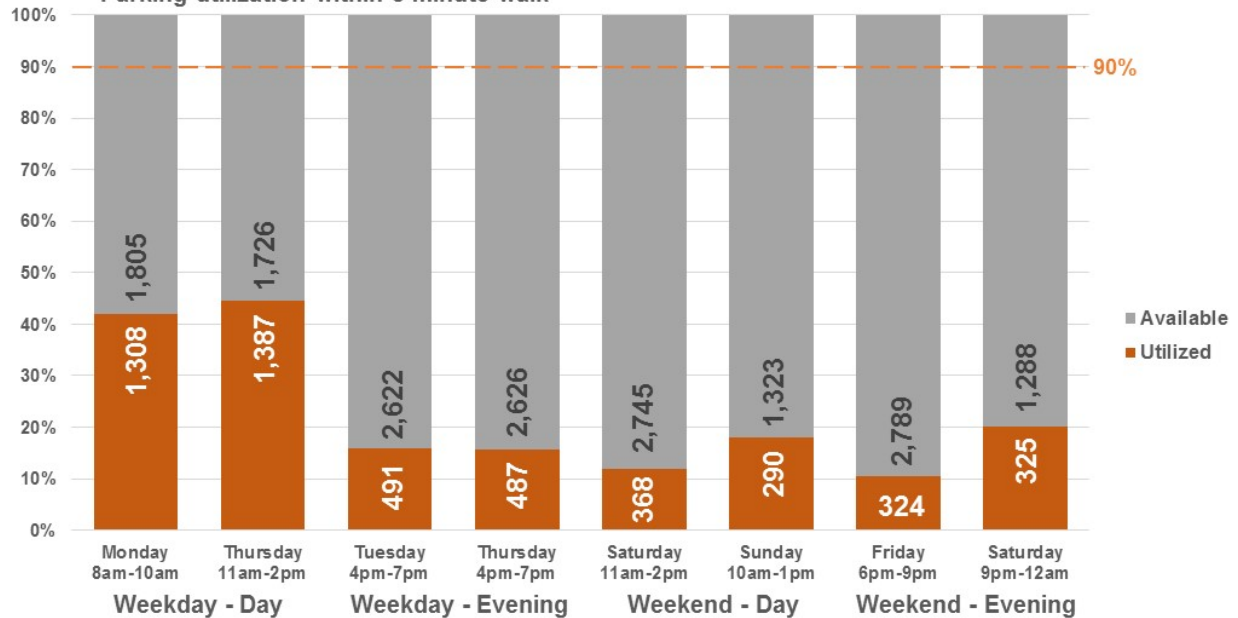


Figure 06

Marshall Street + Monroe Avenue

Parking utilization within 5 minute walk



South Goodman Street and Monroe Avenue

- On-street parking utilization is lowest during the weekday daytime.
- On-street parking utilization is at its highest during the weekend evening time. Both counting periods have utilization greater than 80%, but do not cross the 85% threshold.
- Off-street parking utilization is highest during the Sunday daytime counting period. Other relatively higher utilization periods occur during the weekday daytime, and Saturday evening counting periods.
- All off-street parking utilization periods are below the 75%-90% target range.

Figure 07

South Goodman Street + Monroe Avenue

Parking utilization within 5 minute walk

On-Street

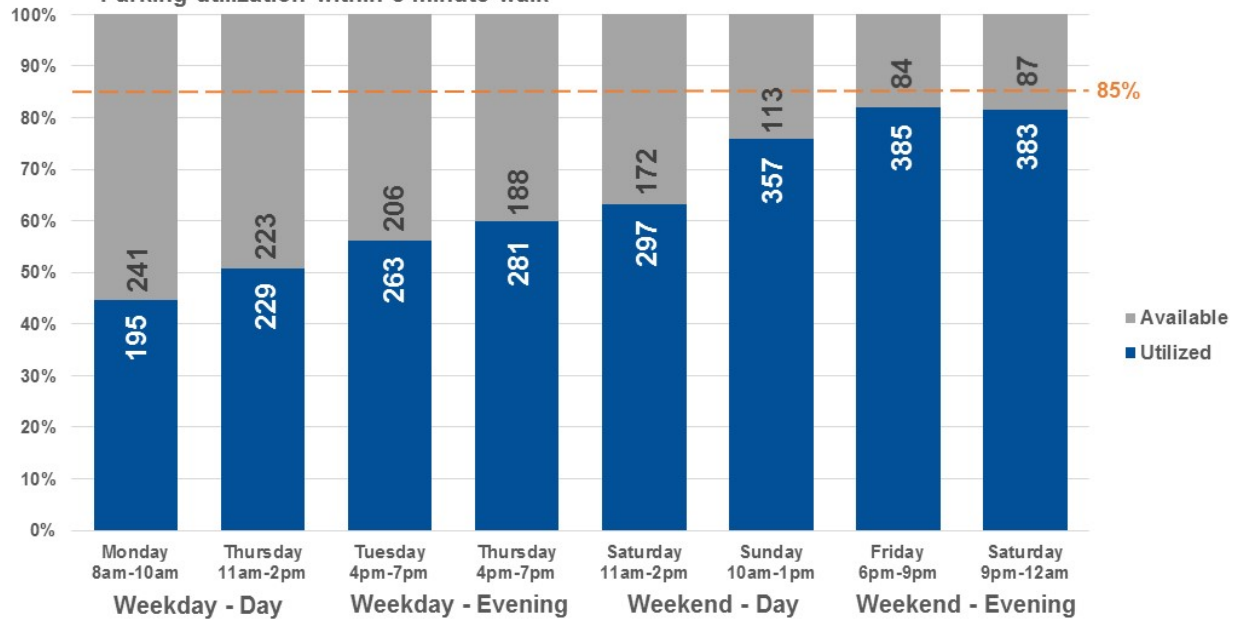
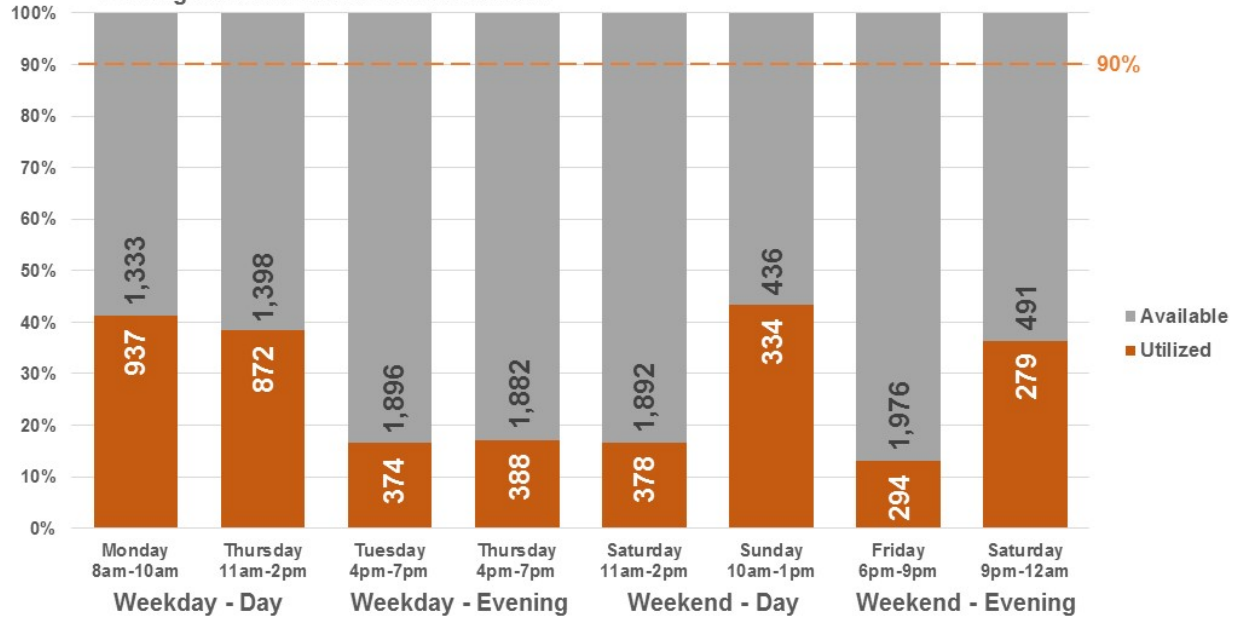


Figure 08

South Goodman Street + Monroe Avenue

Parking utilization within 5 minute walk

Off-Street



Canterbury Road and Monroe Avenue

- On-street parking utilization is lowest during the weekday daytime.
- On-street parking utilization it at its highest during the weekend evening time. However, only the Friday counting period reaches the target utilization range of 70%-85%.
- All on-street parking utilization periods are below the 85% threshold.
- Off-street parking utilization is relatively evenly distributed across utilization counting periods.
- All off-street parking utilization periods are below the 75%-90% target range.

Figure 09

Canterbury Road + Monroe Avenue

Parking utilization within 5 minute walk

On-Street

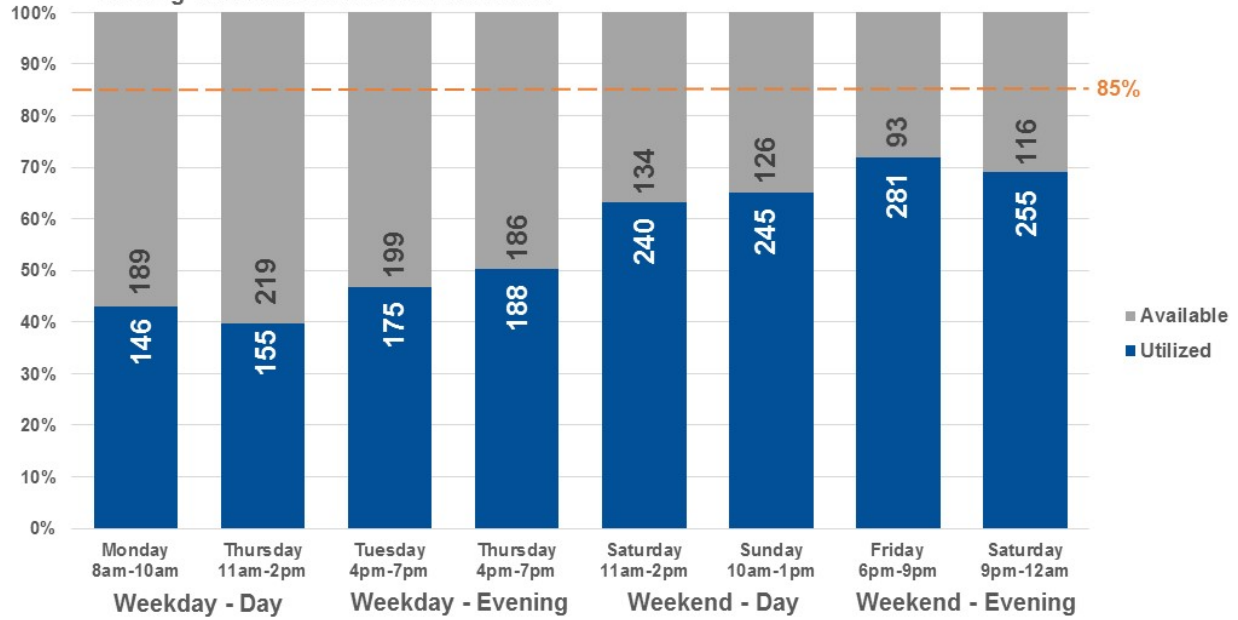
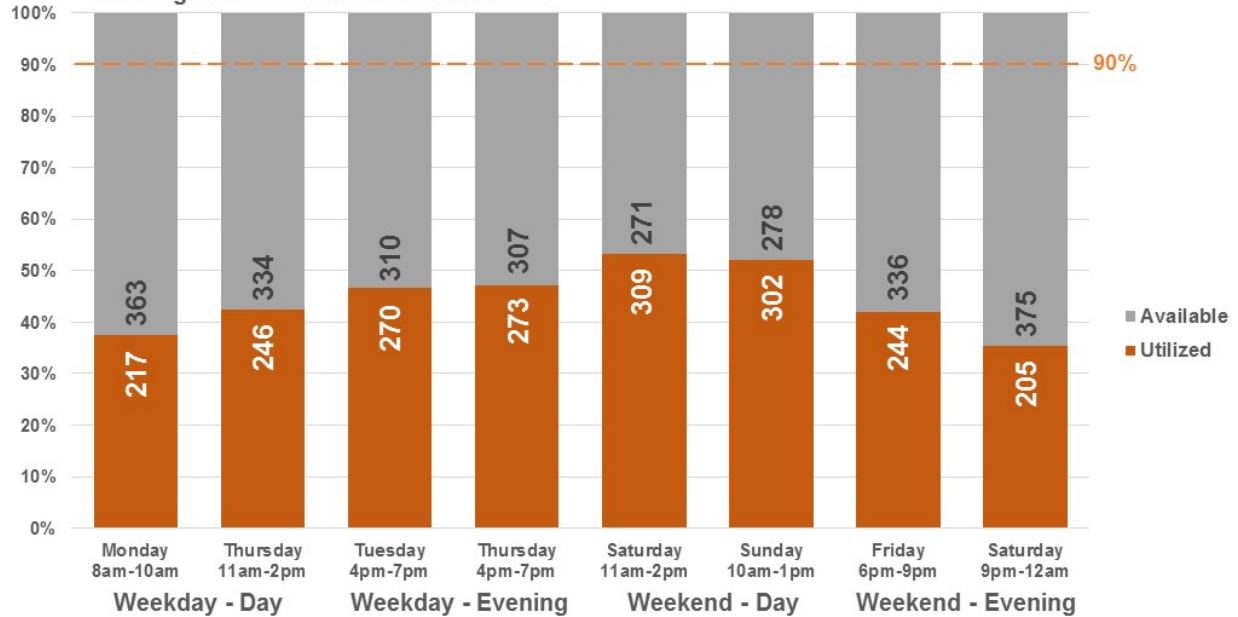


Figure 10

Canterbury Road + Monroe Avenue

Parking utilization within 5 minute walk

Off-Street



Belmont Street and Monroe Avenue

- On-street parking utilization is lowest during the weekday daytime and weekday evening.
- On-street parking utilization is at its highest during the weekend evening time. Both counting periods are within the target range of 70%-85%.
- All on-street parking utilization periods are below the 85% threshold.
- Off-street parking utilization is highest during the weekend counting periods.
- All off-street parking utilization periods are below the 75%-90% target range.

Figure 11

Belmont Street + Monroe Avenue

Parking utilization within 5 minute walk

On-Street

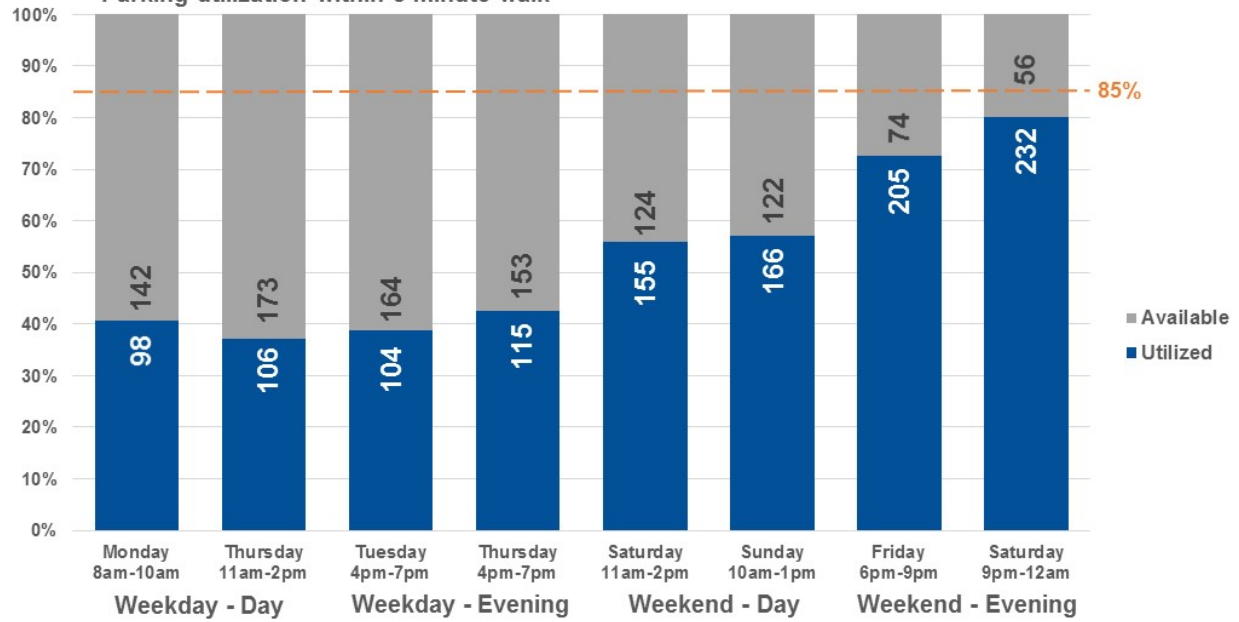
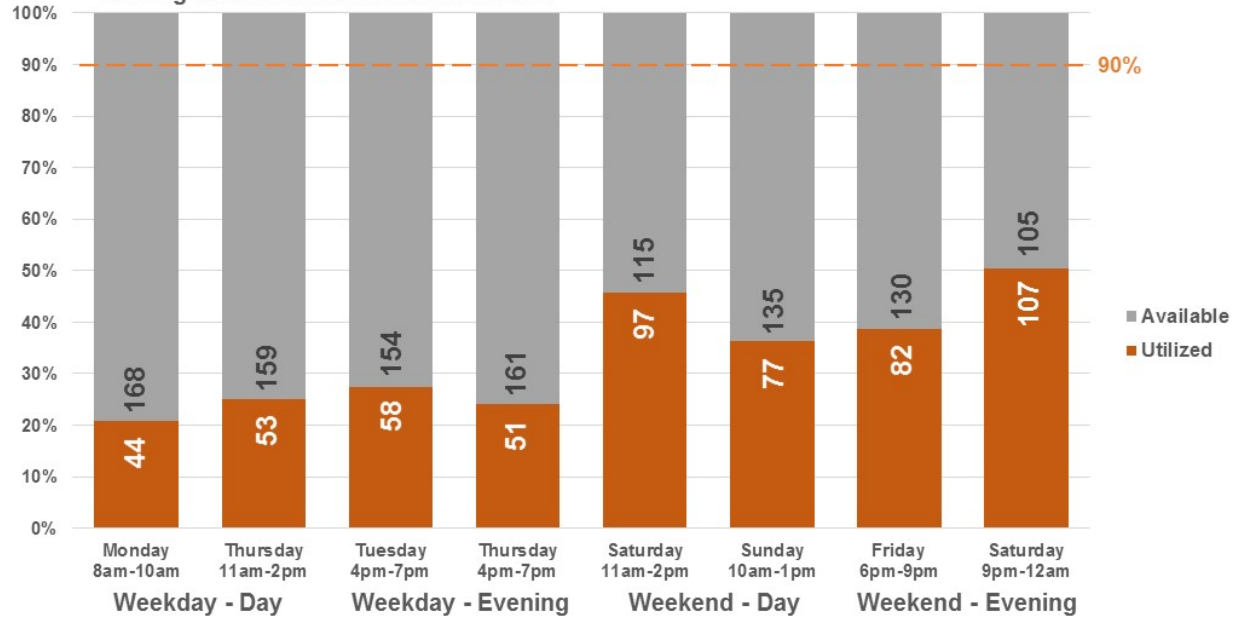


Figure 12

Belmont Street + Monroe Avenue

Parking utilization within 5 minute walk

Off-Street



Utilization Profile: Land Use

The table below shows on-street and off-street supply and utilization within the different land use groups in the study area.

- The two land uses with the highest percentages of off-street parking are 'Office' and 'Public + Office'.
- 'Office' is a general category for lots specifically used for office buildings. 'Public + Office' is the designation for the Alexander Park parking garage. The garage has both hourly rates for public use, and spaces used by permit holders from office tenants.
- 'Bars and Restaurants' and 'Mixed-use' (which may include bars and restaurants), accounts for 14.5% of supply within the study area. Utilization for this group is not within the target range of 70%-85% utilization.

| Land-use | Total Spaces | Supply Percent | Weekday - Day | | Weekday - Evening | |
|---------------------|--------------|----------------|--------------------|----------------------|--------------------|---------------------|
| | | | Monday 8am-10am | Thursday 11am-2pm | Tuesday 4pm-7pm | Thursday 4pm-7pm |
| Apartment | 430 | 9.8% | 36% | 37% | 41% | 37% |
| Auto Repair | 55 | 1.2% | 40% | 51% | 22% | 18% |
| Office | 1,105 | 25.1% | 40% | 53% | 20% | 20% |
| Bar/Restaurant | 312 | 7.1% | 23% | 26% | 38% | 32% |
| Converted Residence | 22 | 0.5% | 27% | 82% | 41% | 36% |
| Mixed-use | 326 | 7.4% | 22% | 40% | 42% | 48% |
| Retail | 266 | 6.0% | 23% | 38% | 25% | 32% |
| Education | 97 | 2.2% | 40% | 65% | 24% | 1% |
| Fire Department | 19 | 0.4% | 26% | 16% | 26% | 21% |
| Place of Faith | 161 | 3.7% | 18% | 15% | 12% | 17% |
| Public | 63 | 1.4% | 13% | 21% | 8% | 5% |
| Public + Office | 1,500 | 34.1% | 50% | 41% | 9% | 8% |
| Vacant | 12 | 0.3% | 0% | 8% | 33% | 17% |
| YMCA | 34 | 0.8% | 65% | 62% | 82% | 100% |
| Total | 4,402 | 100% | | | | |

| Land-use | Total Spaces | Supply Percent | Weekend - Day | | Weekend - Evening | |
|---------------------|--------------|----------------|----------------------|--------------------|-------------------|----------------------|
| | | | Saturday 11am-2pm | Sunday 10am-1pm | Friday 6pm-9pm | Saturday 9pm-12am |
| Apartment | 430 | 9.8% | 42% | 45% | 42% | 52% |
| Auto Repair | 55 | 1.2% | 49% | 29% | 25% | 13% |
| Office | 1,105 | 25.1% | 14% | 9% | 10% | 13% |
| Bar/Restaurant | 312 | 7.1% | 31% | 38% | 45% | 50% |
| Converted Residence | 22 | 0.5% | 23% | 41% | 23% | 41% |
| Mixed-use | 326 | 7.4% | 59% | 44% | 56% | 52% |
| Retail | 266 | 6.0% | 27% | 19% | 24% | 20% |
| Education | 97 | 2.2% | 12% | 5% | 4% | 3% |
| Fire Department | 19 | 0.4% | 21% | 21% | 21% | 21% |
| Place of Faith | 161 | 3.7% | 66% | 78% | 19% | 12% |
| Public | 63 | 1.4% | 3% | 5% | 5% | 10% |
| Public + Office | 1,500 | 34.1% | 3% | 0% | 1% | 0% |
| Vacant | 12 | 0.3% | 8% | 8% | 17% | 33% |
| YMCA | 34 | 0.8% | 68% | 59% | 50% | 6% |
| Total | 4,402 | 100% | | | | |

4.3 Future Parking Analysis

In recent years, there has been increased development interest in the Monroe Avenue corridor. As new infill projects are developed, the effects on parking supply and demand will need to be considered. To determine the extent to which the study area can accommodate potential future infill development, concepts were prepared and a build-out analysis was conducted for select locations within each sub-area. The infill development concepts reflect the most appropriate short-term infill development locations and the build-out analysis reflects the bulk and parking requirements mandated by the City's Municipal Code.

4.3.1 Infill Development Concepts

To create the infill development concepts, properties along Monroe Avenue were evaluated by their potential for development and/or redevelopment. This included planned public and private development as a result of the Inner Loop East Project, and discussions with stakeholders and the PAC. Concepts were created for locations within the Marshall Street, South Goodman Street, and Canterbury Road sub-areas. Within the Belmont Street sub-area, infill development opportunities were not identified due to the absence of vacant properties and few small parking lots. However, the Belmont Street sub-area did have opportunities for the creation of shared parking lots.

Infill development goals:

1. Utilize mixed-use as the primary development pattern, with commercial on the first floor and residential and upper floors.
2. Utilize traditional neighborhood design including re-establishing the street wall (zero setback), two-story building heights, and scale that is reflective of the surrounding community.
3. Provide a safe and walkable neighborhood that is oriented for the mobility of all users.
4. Alleviate traffic congestion by locating new shared parking lots behind buildings with ingress and egress routes on side streets. This also reduces the number of curb cuts along Monroe Avenue and increases the amount of space for on-street parking.
5. Utilize shared parking lots and on-street parking as the means toward meeting minimum parking requirements.

Each infill development concept was evaluated to determine the amount of off-street parking required by the existing Municipal Code. Due to the conceptual nature of the infill development, some assumptions were needed to calculate the required number of parking spaces.

Assumptions:

1. Although the current Municipal Code does not have a maximum building height limit, each infill building was assumed to be two stories to maintain consistency with surrounding buildings and traditional neighborhood scale.
2. Commercial space would occupy the first floor of every building. Retail and office uses within the Municipal Code have the same parking requirement: 2 spaces per 1,000 SF.

3. The average square footage of restaurant space within the study area is 2,690 SF. If a building could reasonably accommodate this square footage, restaurant space was included on the first floor.
4. Residential space would occupy the second floor of each building. The size of each unit reflects the minimum size of a one bedroom apartment in the current Z Municipal Code: 650 SF.

Based on the current Municipal Code and the assumptions above, Table 19 shows the amount of commercial space, number of residential units, and net parking surplus or deficit for the infill development concepts in each sub-area. The amount of parking that was included within each infill development concept was based on the availability of land balanced with the type of development recommended by stakeholders and input from the PAC.

| Table 19 Parking Required for Infill Development Concept | | | | |
|--|----------|----------|------------|------|
| Sub-Areas | Provided | Required | Difference | |
| Marshall St Sub-area* | 194 | 0 | 194 | 200% |
| S Goodman Sub-area | 414 | 315 | 99 | 27% |
| Canterbury Sub-area | 152 | 106 | 46 | 35% |
| Belmont Sub-area | 74 | 55 | 19 | 29% |

* The future in-fill development concept for the Marshall Sub-area includes properties that are within the CCD Zoning District which has no minimum parking requirement, hence the 200% difference.

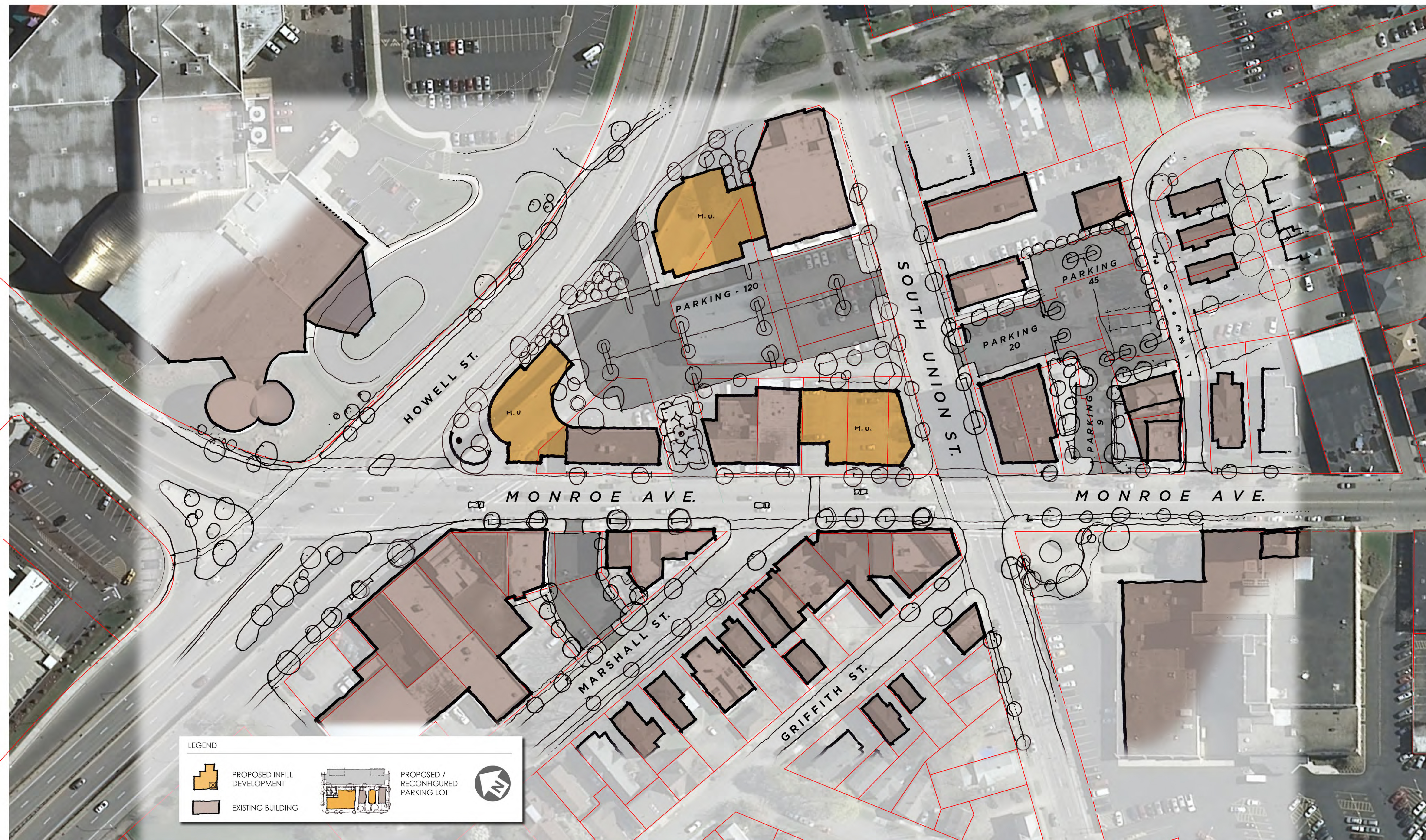
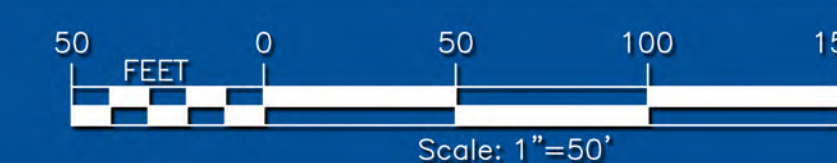


Figure 13 - MARSHALL STREET / MONROE AVENUE SUB-AREA CONCEPT



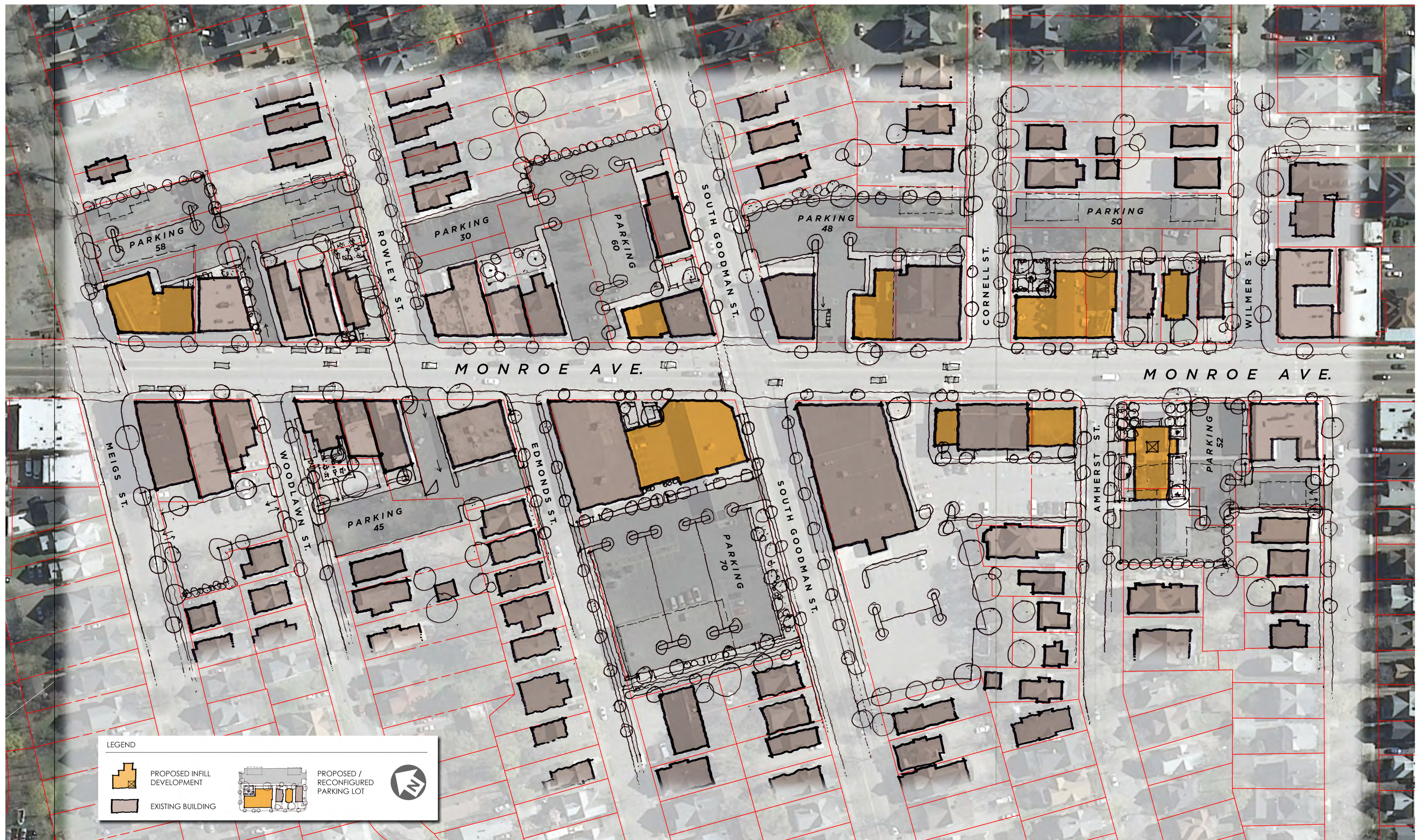


Figure 14 - SOUTH GOODMAN STREET / MONROE AVENUE SUB-AREA CONCEPT

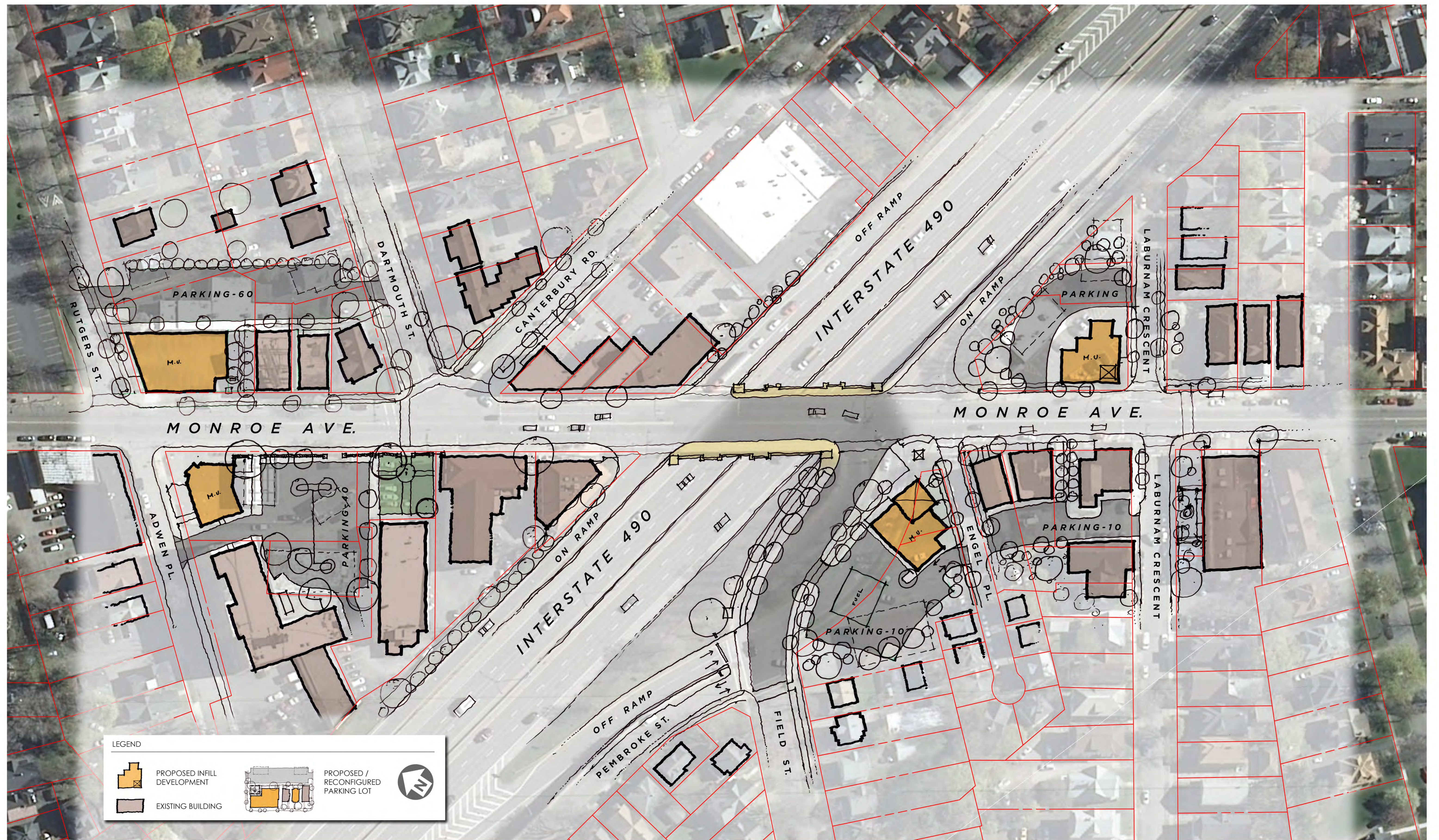
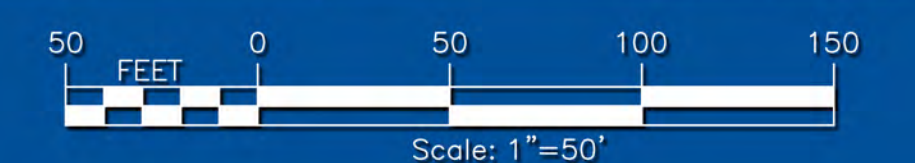


Figure 15 - CANTERBURY STREET / MONROE AVENUE SUB-AREA CONCEPT



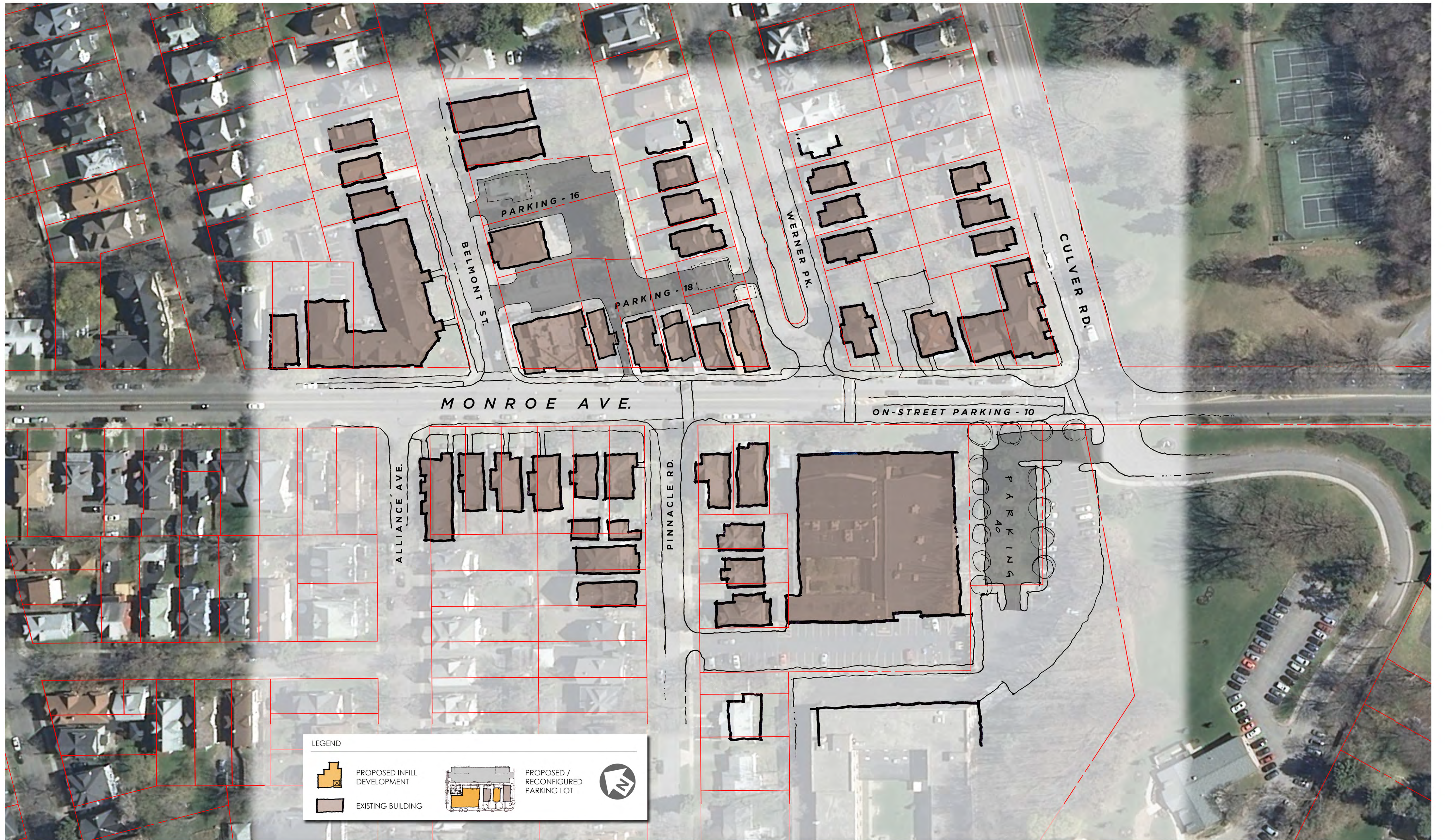
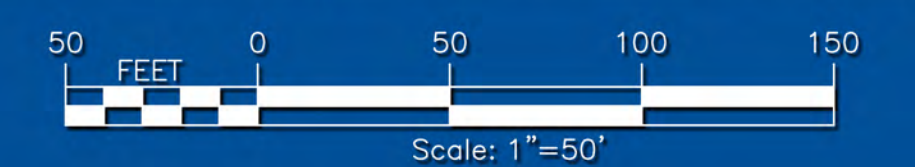


Figure 16 - BELMONT STREET / MONROE AVENUE SUB-AREA CONCEPT



4.3.2 Build-out Analysis: Low, Medium and Maximum Development

A build-out analysis was conducted for the Infill Development Concept areas, applying the Municipal Code requirements to identified properties to determine maximum buildable area and parking surplus or deficits. The criteria used to determine build-out for each scenario were based on property constraints such as whether the parcels are vacant, underutilized or developed with incompatible uses. An analysis was completed for each development scenario for the Marshall Street, South Goodman Street, and Canterbury Road sub-areas. Infill development was not proposed for the Belmont Street sub-area and therefore was excluded from the build-out analysis. The following assumptions were made to calculate maximum buildable area for the three development scenarios within each sub-area:

Assumptions:

1. Although minimum parking requirements exist, the Municipal Code does not include maximum lot coverage percentages in the C-1, C-2 and CCD Zoning Districts. Due to the lack of a maximum lot coverage requirement contained in the Municipal Code for these districts, the amount of land devoted to building, parking, and landscaping is determined by the developer (with consideration to all other Municipal Code requirements). However, since off-street parking is common for infill development, the calculations for the build-out analysis used a coverage of 80% for buildings and 20% for parking.
2. To calculate the approximate number of parking spaces that could be accommodated within the 20% coverage area, a standard square footage per space was used. The American Planning Association *Planning and Design Standards* show an average square foot per space of 302.5 FT for parking lots with perpendicular spaces.³ This number reflects the per vehicle average amount of space needed for both parking and circulation.
3. Although the existing Municipal Code does not contain a maximum building height limit in the C-1 and C-2 Zoning Districts, there are minimum height requirements and maximum square footage requirements for principal uses in both districts. For the purpose of future projections, the build-out assumed each property was limited to two stories to reflect the likely height of new buildings and compatibility with existing buildings in the corridor.
4. Commercial space would occupy the first floor of every building. Retail and office uses within the Municipal Code have the same parking requirement: 2 spaces per 1,000 SF.
5. The average square footage of restaurant space within the study area is 2,690 SF. If a building could reasonably accommodate this square footage, restaurant space was included on the first floor.
6. Residential space would occupy the second floor of each building. The size of each unit reflects the minimum size of a one bedroom apartment in the current Municipal Code: 650 SF.

³ American Planning Association, *Planning and Urban Design Standards*, 1st ed. (Hoboken, New Jersey: John Wiley & Sons, Inc., 2006), Part 3, Page 255.

Based on the current Municipal Code and the assumptions above, Table 20 shows the amount of commercial space, number of residential units, and parking required for each development scenario. Note that development within the Marshall Street Sub-area is within the Center City Zoning District which does not have minimum parking requirements. In comparison to the Table 19 (Parking Required for Infill Development Concepts), parking remains unbalanced between the number of provided spaces versus the number of spaces required by the Municipal Code.

| Table 20 Parking Required for Build-out Scenario | | | | | |
|--|-------------------|--------------------|----------|------------|------|
| Sub-Areas | Current Inventory | Build-out Scenario | | | |
| | | Provided | Required | Difference | |
| Marshall Sub-area | 2,346 | 2,312 | 1,530 | 781 | 41% |
| S Goodman Sub-area | 2,257 | 2,142 | 2,359 | -217 | -10% |
| Canterbury Sub-area | 472 | 463 | 1,069 | -606 | -79% |
| Belmont Sub-area | 208 | n/a | n/a | n/a | n/a |

If the surplus or deficit of parking spaces were to be evaluated across the entire study area there would be a deficit of 42 spaces as the result of the build-out scenario. However, the evaluation and comparison was completed at the sub-area level because it was unreasonable to expect a person to park and walk the entire 1.5 mile length of the Study Area.

5.0 NEEDS + OPPORTUNITIES ASSESSMENT

To develop a series of recommendations, data and information collected requires a comprehensive evaluation to determine the parking and mobility opportunities that meet the needs and desires of the community. To accomplish this goal, the needs and opportunities assessment utilized a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis to identify the internal and external factors that impact parking and mobility. The level of impact of these factors provides the framework for evaluating the parking and mobility opportunities in section 5.2 and the series of recommendations in Chapter 6.

5.1 SWOT Analysis

To determine the internal and external factors that impact parking and mobility, the SWOT Analysis evaluated data and information from the following areas:

1. Stakeholder interviews, public survey, and public meetings
2. Previous planning studies
3. Land use and development patterns
4. City and Zoning Code restrictions and requirements
5. Current parking, transit, bicycle, and pedestrian infrastructure
6. Current parking enforcement policies and practices
7. Parking supply and demand (utilization)

The analysis examines the internal factors within the study area: Strengths and Weaknesses. Strengths are qualities of the community that provide great benefits and advantages; both tangible and intangible. Weaknesses are the qualities that limit the community from realizing their goals and potential.

The analysis also examines the external factors within the study area: Opportunities and Threats. Opportunities exist that make use of strengths to achieve goals and potential. Threats exist where external conditions jeopardize progress.

The following Strengths, Weaknesses, Opportunities, and Threats were identified as part of this analysis.



- Vibrant mixed use corridor with adjacent residential neighborhoods
 - Proximity to Center City and surrounding residential neighborhoods
 - Buildings with historic value and character
 - Variety of residential types
 - Integration of bicycle facilities
 - High level of community involvement and pride
-



- Limited supply of off-street public parking
 - Unbalanced parking supply and demand
 - Inefficient parking lot layouts and access
 - Excessive travel lanes and lane widths
 - Poor condition of pedestrian infrastructure
 - Lack of transit shelters
 - Low bicycling level of service in select areas
 - Access barriers to pedestrian & vehicle circulation around I-490
 - Confusing, inconsistent, and incomplete on-street signage
 - Lack of continuity of the commercial building edge (street wall)
 - Lack of green space, pocket parks, and public gathering areas
-



- Existing off-street parking supply
 - Shared use parking lots
 - Proximity to Inner Loop East redevelopment, Center City and I-490
 - Bike lane connection to Inner Loop East redevelopment project
 - Streetscape improvements
 - Dense neighborhood development adjacent to corridor
 - Infill - commercial development - street wall
 - Technology - support enforcement and provide real-time information
 - Residential permit parking
 - Lane width reductions (based on volumes)
 - Commercial developments desire to expand their businesses
-



- Increased traffic congestion - Inner Loop, Center City development
- Zoning code / parking requirements hinder potential development
- Cost of infrastructure improvements
- Cost of technology
- Negative perception of paid parking
- Lack of ADA accessible parking

5.2 Assessment

1. On-street regulatory signage is confusing, inconsistent, and incomplete

Within the study area there are numerous variations in on-street regulatory signage. The number of parking regulations, streets with missing signage, streets that are unregulated, and the complexity and frequency of alternating parking signage increases the confusion and frustration of those seeking parking.

Opportunities

- Clear, consistent, and complete regulations would aid the decisions of those seeking parking for their needs.
- Time limit signage that is consistent across the study area would reduce confusion.
- Loading zones signs that provide parking for local deliveries.
- Alternating parking signage that is more concise and that limits alternating parking frequency to low-demand periods (Tuesday / Thursday afternoons) would provide users greater ease in both understanding and following the regulation(s).

2. Destination/Wayfinding signage is needed to direct and inform drivers

Publicly accessible off-street parking signage often did not provide enough information to those seeking parking. Some parking facilities with signs such as “Authorized Only” and “Customers Only” did not include information to indicate who was authorized or what business is associated with the parking regulation. For public parking, the Wadsworth Square public parking lot does not have adequate signage indicating the restrictions, hours of availability, or wayfinding signage directing those seeking parking to the facility. The Alexander Park parking garage does not have wayfinding signage directing people to the entrances, or signage stating facility hours. Not having adequate wayfinding information for off-street parking contributes to the higher utilization observed on-street.

Opportunities

- Wayfinding signage located at key locations would direct those seeking parking to the available off-street parking facilities.
- Clear and concise destination signage at the parking facilities would convey hours, regulations, and cost.

3. ADA accessibility is insufficient

While no industry or ADA standards exist for the number of required on-street accessible parking spaces, there is a relative shortage of on-street handicap accessible parking within the study area. Providing parking access to everyone is a universal necessity, and a recent court case demonstrates that there are legal consequences. In 2014, the Ninth Circuit U.S. District Court ruled against the City of Lomita California. The ruling determined that “*a plaintiff may sue a city under Title II of the ADA (the Title applicable to public entities) for failure to provide accessible on-street parking, even in the absence of regulatory design specifications.*”¹ This ruling also resulted in the City of Lomita being “*obligated to adapt*

¹ Lipman, Paul. “Suing Cities for on-Street Parking Design/ ADA.” <http://www.wzllp.com/suing-cities-on-street-parking-design-ada/>.

existing Access Standards and come up with a plan”² for implementing on-street accessible parking.

Along with providing equitable access to on-street parking, improved access into businesses needs to be addressed. Results of the stakeholder interviews and field observations indicated that several storefronts lack accessible routes from the sidewalk, creating another barrier for those with impaired mobility.

Opportunities

- ADA accessible parking requirements for off-street lots provides guidance on the number of parking spaces needed for on-street parking. The location of these spaces should represent a reasonable distance to destinations along the corridor.
- Accessible routes into stores and businesses needs to be provided for those with impaired mobility.

4. Street geometries and markings are excessive or worn

Travel lane widths measure between 13 and 15 feet along sections of Monroe Avenue from the former Inner Loop to I-490. Travel lane widths on South Union Street measure 13 feet. According to the National Association of City Transportation Officials (NACTO), *“lanes greater than 11 feet should not be used as they may cause unintended speeding and assume valuable right-of-way at the expense of other modes.”³* The number of travel lanes is also excessive in some areas of the study area. These include South Union Street, Alexander Street, and Culver Road. These roads have fewer AADT volumes than Monroe Avenue, but have twice the number of travel lanes.

Shoulder markings at several intersections have radii that are greater than the radii for the curb. A larger turning radius promotes turning at higher speeds, and results in a less safe environment for pedestrians and those crossing the street.

Road and crosswalk markings were observed to be excessively worn in some areas. Road and crosswalk markings that are not clearly visible to both motorist and pedestrian reduces the safety of both.

Current MCDOT protocol evaluates street geometries and the opportunities for amenities when a road is due for resurfacing. This study takes a proactive approach towards expanding parking and mobility options to all users, which may include a re-evaluation of geometries and the inclusion of amenities regardless of whether a road is scheduled for resurfacing.

Turning radii at several intersections were observed to promote higher turning speeds. Reducing a corner radius has the effect of slowing a vehicle down at the corner. Reducing vehicular speed increases pedestrian safety by increasing the amount of time a motorists

² Potter, Mark, “Ground Breaking ADA Decision out of 9th Circuit Ruling”, Potter Handy, LLP, posted September 5, 2014, <http://www.potterhandy.com/city-of-lomita/>

³ National Association of Transportation Engineers, *Urban Street Design Guide* (Washington: Island Press, 2013)

has to observe and react to a pedestrian at the corner. Bumpouts are intended to decrease turning radii, increase pedestrian safety, and decrease the distance needed for a pedestrian to cross a street. Bumpouts already exist on portions of Monroe Avenue, and any additional intersections considered for Bumpouts would need to be evaluated in terms of corner radius and effective turning radius compared to the types of vehicles observed to use the intersection.

Opportunities

- Reducing the width and number of travel lanes might allow for additional on-street parking and additional bicycle lanes.
- Reducing the width and number of travel lanes would promote bicycle and pedestrian safety, and reduce the amount of time required for pedestrians to cross the street.
- Installing bump-outs at intersections would reduce turning radii to NACTO recommendations and provide a safer environment for pedestrians.
- Clearly marking crosswalks at signaled intersections could provide drivers with an indication of potential pedestrians, and would delineate the preferred route for a pedestrian to cross the street. As pedestrian activity continues to evolve, additional marked crosswalk locations should be considered in accordance with MCDOT crosswalk policies.

**It should be noted that the City plans to implement a road diet along Culver Rd. and Alexander St., as well as convert South Union St. to two way traffic south of Monroe Avenue.*

5. Parking enforcement is unbalanced

Illegally parked vehicles were noticed across counting periods. In many cases these illegally parked vehicles contributed to streets being parked over capacity. These illegally parked vehicles were found on the wrong side of the street, too close to intersections, in “No Parking” areas, and too close to fire hydrants. Issues with parking on the wrong side of the street is related to the frequency and complexity of alternating parking signage. Parking too close to intersections is often related to the lack of regulatory signage informing the area and extent of legal parking. Parking in “No Parking” areas is sometimes related to the lack of available parking on a street and the unwillingness of some drivers to search for parking farther from a destination.

These observations were made during field data collection, counting periods, and corroborated from comments in the public survey. However, enforcement of all regulations at all times is nearly impossible for any municipality. The sheer breadth of regulatory signage, scale of on-street parking, and fluidity of parked vehicles necessitates a broad approach to improve adherence to regulations that are intended to provide equitable access.

Opportunities

- Improved enforcement can be accomplished through the simplification and consolidation of on-street regulatory signs.
- Time-limit enforcement can be accomplished through the installation of parking meters.
- Shifting enforcement to a customer-friendly approach that refrains from punishing first-time violators gives parkers an opportunity to learn local regulations. Manitou Springs, Colorado and other cities have used incremental fines successfully. To further evaluate

the opportunity of incremental fines, a precedent review and comparison of different methods would need to be completed to determine what approach best works for the City.

6. Transit stop amenities can be expanded

The 23 active bus stops within the study area currently contain only a bus stop sign and one bench each. To accommodate existing users, and to promote new users, additional transit amenities are needed.

Opportunities

- Bus shelters for inclement weather and protection from the sun.
- Additional seating for comfort in-between buses.
- Added lighting for safety and reading.
- A place for community events and posters.
- Posted bus schedules to inform users of times and connections.
- Bicycle parking to accommodate those to transport their bicycles on the bus.

7. Bicycle facility availability is unbalanced with vehicular facilities

The City of Rochester has recently installed bicycle lanes and sharrows along Monroe Avenue with plans for additional facilities. While survey respondents indicated overall approval of these facilities, they commented that the transition from lanes to sharrows was difficult and felt unsafe, the lack of connections to other neighborhoods reduced access, and the lack of bicycle parking prevented them from going certain places.

Opportunities

- New bicycle lanes might be accommodated through re-evaluating street geometries and markings.
- Adding additional bike racks throughout the study area will accommodate current users and promote additional users.
- Bicycle parking programs can be created with local businesses that promote bicycle commuting, provide lockers, and provide shower facilities.

8. Parking supply and demand is unbalanced

On-street

On-Street parking utilization across counting periods showed several streets with high demand and over capacity. During some counting periods a street with utilization above 85% may be surrounded by other streets with available capacity. During other counting periods, however, several streets with utilization above 85% were clustered together. Even with these clusters, additional on-street parking was often available within a 1-3 block radius.

On-street opportunities

- Adding additional on-street parking capacity would help redistribute demand. Added capacity is possible through a re-evaluation of street geometries and the number of required travel lanes.
- Improving pedestrian access, safety, and experience would encourage users to walk a greater distance from their parked location to their destination.
- Shifting on-street demand to underutilized off-street lots would help redistribute demand.

Off-street

Nearly three-quarters of the available parking supply is found off-street, while the utilization of off-street is significantly below the target of 75%-90% across all counting periods. When comparing off-street parking to on-street parking, the percent of parking utilization is significantly unbalanced. This unbalance is most notable during the counting periods with the highest levels of on-street utilization: weekends. On-street parking areas with high demand and over capacity were often adjacent to off-street lots with available capacity. Access to these parking facilities, however, is restricted to those who are visiting that specific land use; even if the business, office, retail, etc. is closed.

Off-street Opportunities

- Expanding upon the number of shared-parking arrangements that already exist within the study area would provide greater supply and access.
- Existing underutilized parking lots could be acquired by the City for the conversion to publicly accessible lots or garages.
- A parking shuttle program could be introduced that move people from parking areas with a large available supply to their destinations along the corridor.

9. Wadsworth Square parking lot is underutilized

The Wadsworth Square parking lot, while helpful to residents and local businesses, is underutilized. Restricting daytime use to permit only limits the number of potential users. Only 30 permit holders currently use the lot, and only 3 of those permits are for local residents. If every current permit holder used the lot at the same time, it would have less than 50% utilization. Contributing to the underutilization of the lot is the lack of wayfinding signage directing drivers to the lot, and the lack of destination signage with information on regulations and hours of access.

Opportunities

- Public parking facilities that have both permit and hourly options provide access to those needing all day parking, and access for patrons and visitors to the area.
- Wayfinding signage located at key intersections and high demand areas would direct those seeking parking to the available public parking facilities.
- Clear and concise destination signage at the public parking facilities would convey hours, regulations, and costs.

10. Parking turnover is inhibiting visitors and patrons

Employee Parking

From the public survey, 53.8% of business respondents indicated their employees' park on the street. Some businesses commented that employees use the time limit spaces (i.e., 15-minute parking) in front of the business. Employees parking on the street reduce the availability of on-street parking for patrons of businesses. On-street supply is best used to accommodate users who need on-demand short-term parking. Employees who park for long periods and several days of the week are better suited to park in off-street parking facilities.

Employee Parking Opportunities

- Encourage employees of businesses to park in private off-street facilities, thus making more on-street spaces available for patrons.
- Creating reserved spaces for employees would incentivize them to park off-street.
- Creating residential permit only zones would restrict employees from designated streets.*

**Note, on-street permit only parking would require New York State enabled legislation.*

Time Limit Enforcement

The lack of enforcement for on-street time limit regulations was mentioned frequently in the public survey. Marshall Street was specifically mentioned as an area where demand for parking is high, and where turnover is not enforced. Time limit signs exist to promote turnover in high demand areas. When followed, 15-minute, 1-hour, and 2-hour time limits provide essential turnover for local businesses. While businesses prefer time limits that best serve their patrons, opportunities exist to standardize the breath of time limit signs in to fewer categories to improve understanding and enforcement.

Time Limit Enforcement Opportunities

- Time limit signage that is consistent across the study area would reduce confusion and increase the likelihood of adherence.
- Extending 1-hour time limits to 2-hours would accommodate patrons' need for visiting businesses for a longer period.
- Installing parking meters in combination with time limit signage has been shown to improve enforcement and turnover.
- On-street permit parking has been used in the Corn Hill neighborhood within the city and could be explored further for portions of this study area as well. On-street permits can be used for permit only zones or to exclude permit holders from "No Parking" and time limit regulations. It should be noted that on-street permit parking requires New York State Legislative approval.

11. Mixed perceptions on City Zoning Code parking requirements and their impact on business expansion / new development

Some survey respondents indicated an amendment of the zoning code requirements to increase parking minimums would improve the supply of off-street parking. Others indicated the current zoning code requirements are hindering their ability to expand their business, and that the addition of a shared-lot in the neighborhood would be helpful. From

the analysis of the zoning code requirements, some businesses within the study area do not meet the minimum parking requirements while other sections either meet or exceed the minimum parking requirements. However, from the parking utilization analysis, off-street parking throughout the study area and across counting periods is underutilized.

Opportunities

- A thorough analysis of minimum parking requirements and how they impact land use and development within the study area would help address the imbalance in utilization and concerns of businesses and residents.

6.0 PARKING + MOBILITY RECOMMENDATIONS

Commonly, solutions to parking problems almost always seek to increase supply. When parking studies are conducted, most municipalities find parking congestion is localized and limited to a few areas where popular retail, social, and cultural destinations are located. Attempts to increase supply is often coupled with adverse effects on the character and function of a place. Balancing the needs of parking and mobility, while maintaining and enhancing the desirable character of the Monroe Avenue corridor is key when evaluating solutions.

Parking problems are often viewed as one singular issue (lack of supply or too much demand) with one solution (increasing supply). In reality, parking problems are a combination of many factors. With limited public and private resources, efforts to address parking and mobility problems need to be evaluated, weighed, and planned.

Parking studies and research from around the United States have concluded that municipalities should not plan and design parking to accommodate annual peak demand. Rather, they urge promotion of contingency-based efforts to aid in mitigating problems while providing alternative modes. Planning and designing parking facilities to meet annual peak demand typically results in the characteristic 'sea of parking' around shopping areas. Some of these areas are being retrofitted, reducing the amount of parking while providing a more sustainable mixed use environment that promotes pedestrian activity and transit use. Balancing the potential need for new parking with transit, bicycle, and pedestrian options ensures parking facilities are not over-built.

The following parking and mobility recommendations have been grouped in the following categories: Existing Facility Management, Demand Management, and Capacity Management. These recommendations reflect a combination of input from the community survey, public meetings, guidance from the PAC, comments received from stakeholders, data collected in the field, and the needs and opportunities assessment. These recommendations were also developed to reflect the long-term desires of the community documented in multiple past planning efforts and parking studies from comparable municipalities, and national research from the American Planning Association, Congress for The New Urbanism, National Association of Transportation Engineers, and Victoria Transport Policy Institute.



- **Short-term recommendations** focus on the opportunities that can be implemented in a 1-3 year time-frame. While these recommendations will require additional planning and investments, they are typically the least expensive options. Once these recommendations have been implemented, their impact should be evaluated to determine if further action is needed.
- **Mid-term recommendations** need a higher level of planning, investment, and community input. While these recommendations are sometimes more complicated, they are achievable within a reasonable time-span of 3-5 years. Once these recommendations have been implemented, their impact should be evaluated to determine if further action is needed.
- **Long-term recommendations** require the greatest level of planning, investment, and community input. These recommendations are achievable within a time-span of 5+ years because they necessitate multiple years of planning and investment so that public and private funding is spent in the most appropriate and beneficial manner.

EXISTING FACILITIES MANAGEMENT

Recommendations for existing facilities focus on improving the function and operation of signage, regulations, enforcement, and the creation of a parking benefit district.

- SHORT-TERM**
- 1. Reduce variety of time limit and time span regulations so drivers can quickly understand regulatory signage.**
 - Time limit signs should either reflect standard business hours of 8am-5pm Monday-Friday or typical restaurant hours from 4pm-10pm. Reducing the variety of time limit signs would reduce confusion and provide consistency within the corridor.
 - Time span signs associated with rush hour traffic should be removed along South Union Street, Averill Avenue, and Culver Road. Volumes on these roads do not necessitate the removal of parking for an additional travel lane during rush hour.
 - 2. Install additional signage to cover areas with missing or incomplete signage so drivers can readily see parking requirements.**
 - Install regulatory signage on streets that are missing signage (streets with unregulated parking). This includes portions of Monroe Avenue, Alexander Street, Averill Avenue, South Goodman Street, Sumner Park, Wilcox Street, Adwen Place, Canterbury Road, Roosevelt Street, and Werner Park. The type of regulation should reflect the needs of businesses and residents and other recommendations from this study.
 - Work with Monroe County DOT to identify and replace missing regulatory signage. Portions of the following streets have some signage, but do not have signage on each end of the regulated area: Monroe Avenue, Marshall Street, Griffith Street, Pearl Street, South Union Street, Averill Avenue, Woodlawn Street, Edmonds Street, Rowley Street, Rutgers Street, Crossman Terrace, and Belmont Street.
 - Street cleaning signs only exist on a portion of Monroe Avenue from I-490 to Culver Road. Street cleaning signs should be

added along the rest of Monroe Avenue. All street cleaning signs should be adjusted to be effective November 1 through April 1. This adjustment would continue to allow snow removal, but would increase parking access during the rest of the year.

3. Install wayfinding and destination signs for public parking facilities to direct vehicles to these facilities and provide or clarify applicable regulations and restrictions.

- Wayfinding signage directing drivers to the Wadsworth Square parking lot should be installed along Howell Street, Monroe Avenue, South Union Street, and Averill Avenue.
- Destination signage for the Wadsworth Square parking lot should be installed with applicable regulations and restrictions.
- The current destination sign at the Alexander Park parking garage lists the hourly rates of the facility. It should also include the times for which the facility is open/available.
- Perceptions of safety at the Wadsworth Square parking lot would be improved through new LED lighting and a public call box.

4. Update the City's parking website to include public parking facilities within the study area.

- The Bureau of Parking website includes a map of city-owned parking facilities in Downtown. Expanding this map would provide more information to those seeking parking in the study area. Publicly-owned parking and privately-owned parking that is available to the general public should be included.

Provo, Utah Preliminary Wayfinding Signs

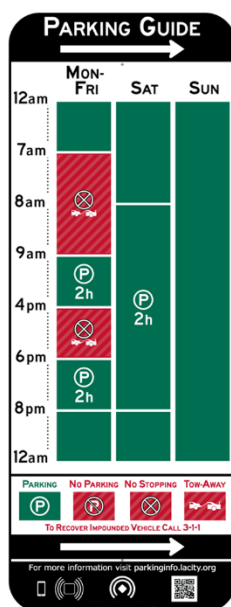


Captured January 12, 2017:
<http://provomayor.com/2013/05/07/way-finding-signs/>

5. Shift parking enforcement to a customer-friendly approach.

- Visitors and residents may occasionally misread regulations or lose track of time. To be more customer friendly and discourage repeat offenses, shift enforcement to incremental fines. These incremental fines don't punish first time violators. Instead, repeat violators would receive increasing fine amounts over a defined period. A system/database would need to be created to keep track of repeat violations.

MID-TERM



6. Streamline alternating parking regulations to be more user friendly.

- The current set of regulations is confusing and inconsistent, often resulting in illegal parking, which blocks traffic. This issue was also noted in the public survey.
- Alternating parking signs should be simplified to transition only two times per week. Transitions on Monday and Thursday would allow turnover on off-peak days.
- A transition time should be at a singular point during off-peak hours. A transition time of 2pm would avoid school traffic and typical rush hour traffic. It would also allow enforcement to be conducted during the daytime.

**It should be noted that any changes to regulatory laws and signage relating to alternate parking must be approved by the Traffic Control Board. Additionally, current policy allows residents to petition for changes to the parking regulations on a particular street (times of day, alternate parking days, side of the street, etc.). 75% or more of residents on the street must be in agreement to any proposed changes. Signs that do not meet standards set by the New York State DOT would need to be reviewed and approved by the New York State DOT prior to installation.*

Los Angeles Department of Transportation (LADOT),
Captured January 12, 2017
<http://parkinginfo.lacity.org/>

7. Install parking technology in high demand commercial-retail areas.

- The installation of on-street parking meters in high demand commercial and residential areas would further help distribute parking demand, promote turnover, and streamline enforcement. Meter technology available today includes:
 - sensors that can alert drivers to open parking spaces,
 - online payment options to both initiate and extend parking,
 - text (sms) alerts to users of expired parking, and
 - the ability to alert parking enforcement of expired spaces.
- These networked meters can also be linked to a database that City officials can use to evaluate effectiveness of rates and time limits. Hourly rates and time limits can be adjusted to distribute

parking from high-demand areas to low-demand areas through incremental changes.

- Explore use of “Parking App” technology for real time number and location of open parking spaces that can be accessed via smartphones or that can communicate with vehicle’s GPS / on-board Computer systems and can also be integrated with the meter technology.

8. Create a neighborhood parking benefit district to reinvest meter and enforcement funds.

- All or portions of revenues generated from meters and fines, less expenses for maintenance and enforcement, should be reserved for re-investment in improving pedestrian, bicycle, transit, and parking facilities. A parking benefit district would provide the legal mechanism to set-aside the meter and fine revenue received from meters for specific reinvestment within the neighborhood. Local businesses and residents would be able to provide input on how these funds would be used to improve the public facilities within the district. The City of Austin Texas has used a parking benefit district since 2011. Excess funds from paid parking spaces within the district are used to make “improvements that promote waling, cycling, and public transit use within the district.”¹

LONG-TERM

9. Expand parking technology.

- Adding parking meter technology to the entire length of Monroe Avenue, and portions of South Union Street, Alexander Street, and South Goodman Street would promote turnover and streamline enforcement. A unified parking meter district creates continuity along the corridor and aids in preventing spill over parking to non-metered areas.

DEMAND MANAGEMENT

Recommendations for managing the demand for parking and mobility focus on improving the facilities and amenities for pedestrians, bicyclists, and transit users.

SHORT-TERM

10. Improve transit users’ experience and comfort through added amenities at each transit stop.

- Installing more seating would increase capacity for users waiting in-between bus arrivals.
- Installing shelters (in locations where ROW constraints would allow) would provide safe haven during inclement weather.
- Installing bike parking facilities at bus stops would accommodate users who bring their bicycles on the bus and provide centralized bicycle parking areas across the study area.

¹ City of Austin Texas, Code of Ordinances, §12-6 Parking Benefit District. Accessed January 12, 2017, https://www.municode.com/library/tx/austin/codes/code_of_ordinances?nodeId=TIT12TRRE_CH12-6PABEDI

11. Improve pedestrian access, safety, and experience that promotes walking and encourages users to seek parking beyond adjacent facilities, regardless of their level of mobility.

- Crosswalks should be clearly visible and wide enough to improve safety and visibility.
- Detectable warning pads for the seeing impaired would meet ADA standards.
- Sidewalks that are maintained and easily traversed improves access for those in wheelchairs and those using other mobility aids.
- Mid-block crossings would improve pedestrian access, circulation, and safety. These crossings should include push-button activated stop lights to improve safety and comfort for pedestrians and provide necessary time for those crossing in wheelchairs.

**It should be noted that proposed locations for any new mid-block cross walks would need to be reviewed by the City / County DOT for traffic safety and operations impacts.*

12. Expand bicycle facilities to accommodate current users and encourage future users.

- Continue efforts to incorporate defined bicycle lanes that provide an interconnected network across the neighborhood and city, in accordance with the City's Bicycle Master Plan.
- Continue installing bicycle parking facilities to encourage alternative travel and increase parking capacity.
- Include bicycle parking shelters to accommodate parking during inclement weather.
- Installing bicycle parking at each new bus shelter would promote cross-mobility use.
- Examine feasibility of converting bicycle sharrows to bicycle lanes to increase the feeling of safety for bicyclists and provide a consistent, interconnected network through the corridor.

**It should be noted that the conversion of any existing sharrows to dedicated bicycle lanes may require removal or narrowing of existing on-street parking lanes and/or construction of a non-standard width bicycle lane.*

MID-TERM

13. Expand transit service routes and access to accommodate current users and encourage more transit trips.

- Based on feedback received from the public survey, adjusting or adding a route along one of the major corridors perpendicular to Monroe Avenue would provide cross-neighborhood transit and transfers.

14. Evaluate the impact and effectiveness of the county-wide Bus Stop Optimization effort on the Monroe Avenue Corridor.

- The 2014 Bus Optimization study recommended the removal of approximately 25% of the bus stops in Monroe County. Stops and signs were being removed through mid-2016. Determining the impact on transit ridership and parking demand along the corridor would aid decisions on implementing parking and mobility recommendations.

15. Add a neighborhood shuttle service.

- Study the potential for adding a neighborhood shuttle service along the corridor to support peak demand during nights, weekends, and special events.

LONG-TERM

16. Expand High-Capacity Transit (HTC) options as demand increases.

- Include the Monroe Avenue Corridor in future metropolitan planning initiatives for regional High-Capacity Transit (HTC) service. No such initiatives are proposed at this time; however, the Monroe Avenue Corridor's demographics, transportation needs, and development trends make it a potential route for HCT services such as a bus rapid transit or streetcar line. HCT has the potential to promote an increased use of alternative transportation modes and transit-oriented development (TOD), and during public outreach efforts members of the community expressed support for a street car line on Monroe Avenue that connects Downtown Rochester with Brighton"

**CAPACITY
MANAGEMENT**

Recommendations for managing the capacity for parking focus on increasing access and capacity of ADA parking, on-street and off-street parking, and evaluating zoning code parking requirements.

SHORT-TERM

17. Continue parking utilization counts to track progress and fluctuations.

- Parking utilization can fluctuate on an hourly, daily, weekly, and monthly basis. As recommendations are implemented, careful monitoring of progress would be accomplished through follow-up parking utilization counts. While parking research and studies around the United States discourage new parking facilities being built for annual peak demand, knowing the monthly fluctuations in parking utilization will better inform the planning and decision making process if it is determined that adequate supply is an issue.

18. Expand on-street parking access for mobility impaired users.

- The location of ADA accessible on-street parking spaces should be placed to reflect a reasonable distance to destinations along the corridor. ADA requirements for off-street parking provides some guidance to develop local on-street standards. On-street reserved spaces should meet ADA standards that provide the necessary space for users to safely maneuver around their parked vehicle, are free from obstructions on sidewalks, and placed adjacent to curb cuts.

19. Facilitate the creation of share-parking lots.

- Creating shared-parking arrangements would increase the availability of parking options to many users. While shared-parking has been codified and used in some areas along Monroe Avenue, agreements and continued management takes time and effort. Having the City act as the facilitator to encourage implementation of shared-parking arrangements would increase the likelihood of success.

20. Expand availability of public off-street parking.

- To accommodate daytime demand and retain existing permit holders, the Wadsworth Square parking lot has the potential for expanded access. During weekdays from 8am-5pm, the lot would be available to permit holders, and have an hourly option through a pay and display meter. During weekday nights and weekends, the lot would continue to be available for free to all users.

MID-TERM

21. Adjust travel lane geometry and remove unnecessary lanes.

- Current shoulder markings promote higher speeds during turns which decreases bicycle and pedestrian safety. While many municipalities have a 15-foot curb radius, NACTO standards recommend an even smaller turning radius to increase safety.
- Reducing the width and number of travel lanes would allow for additional on-street parking and additional bicycle lanes. As noted in previous chapters, the number of travel lanes on South Union Street, Alexander Street, and Culver Road should be evaluated.
- Reducing the width and number of travel lanes at intersections and replacing with bump-outs would reduce the amount of time required for pedestrians to cross the street and improve safety.
- Based on the recommendations above, sections have been drawn to illustrate right-of-way configurations that reflect NACTO standards. These illustrative road configurations (sections) have been drawn for Alexander Street to South Union Street (Figure 17), Averill Street to Alexander Street (Figure 18), and Rutgers Street to Oxford Street (Figure 19).

- Based on the recommendations above, this study reaffirms the determination and commitment of the City of Rochester to implement a road diet along Culver Road and Alexander Street, and to convert South Union Street to two-way traffic south of Monroe Avenue.
- To further evaluate the potential for these recommendations, a capacity analysis should be conducted to support reduction in lane width and travel lanes.

22. Evaluate parking-related requirements and restrictions within the City Code.

- Comparable city codes also make parking in front of a private driveway unlawful. These city codes, however, limit the regulation to those who have blocked access to the private driveways. Current City Municipal Code requires a 5-foot setback on each side of a driveway. This requirement should be evaluated.
- Evaluate minimum parking requirements in comparison to utilization rates, regulations from comparable municipalities, and national research on parking and determine whether adjustments, elimination or incorporation of Transportation Demand Management (TDM) requirements would provide a better solution to parking concerns while accommodating potential new infill development.

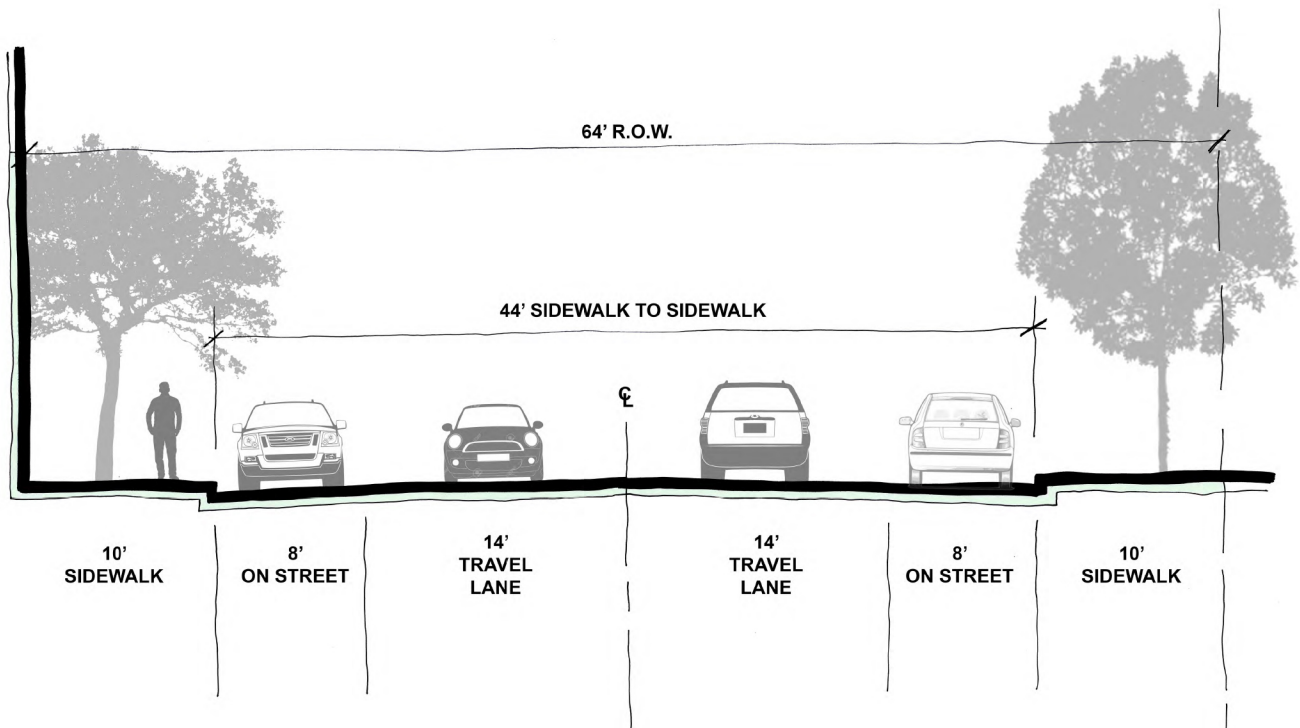
23. Explore acquisition of private lots for the conversion to public lots.

- While shared-parking arrangements are one strategy to increase availability, continued increases in demand may necessitate the acquisition of a private lot to convert to a public lot. While this would increase public access of parking to all, it would likely require a shared-use agreement or the unbundling of parking requirements with the previous owner of the lot.

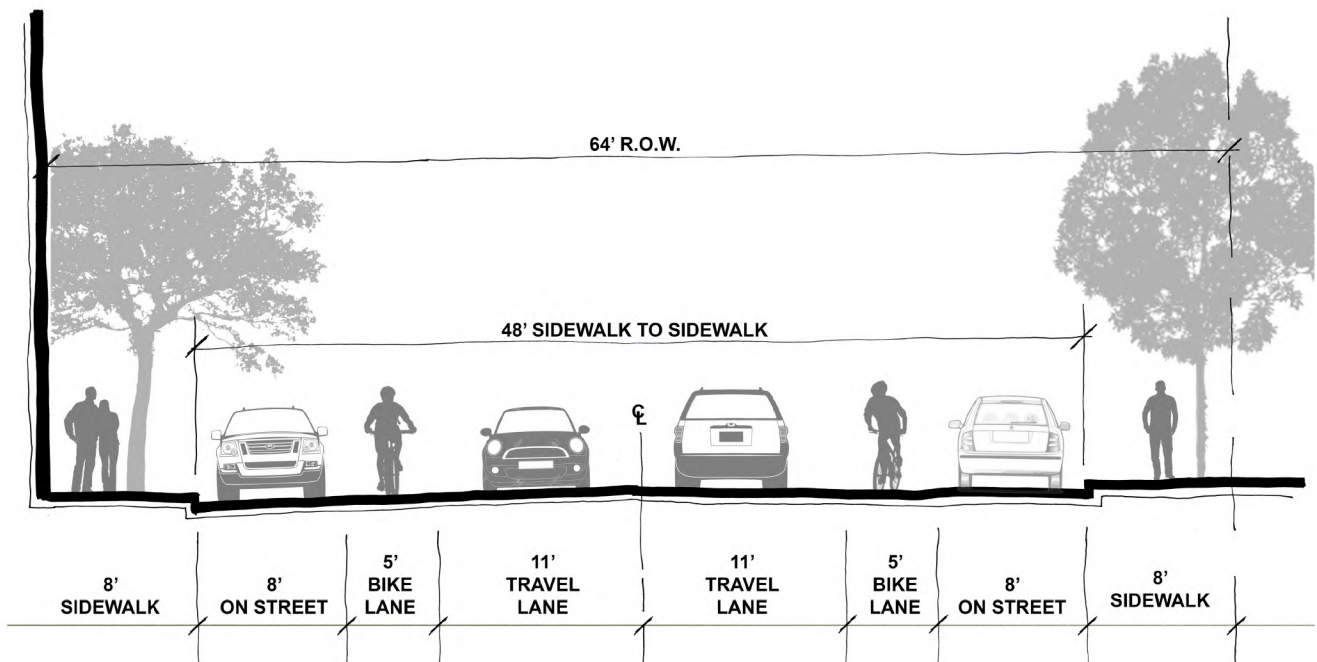
LONG-TERM

24. Convert existing parking lots to structured or stacked parking.

- Removing homes, paving green space, or replacing commercial areas with parking is undesirable, often causes controversy and erosion of neighborhood character. Strategic conversion of surface lots to structured parking maintains the existing footprint while expanding supply. Any new parking facility should include public parking and sheltered bicycle parking. Commercial storefronts could be included on the ground level to ensure that any new structured parking facilities would be compatible with the surrounding neighborhood character and scale.

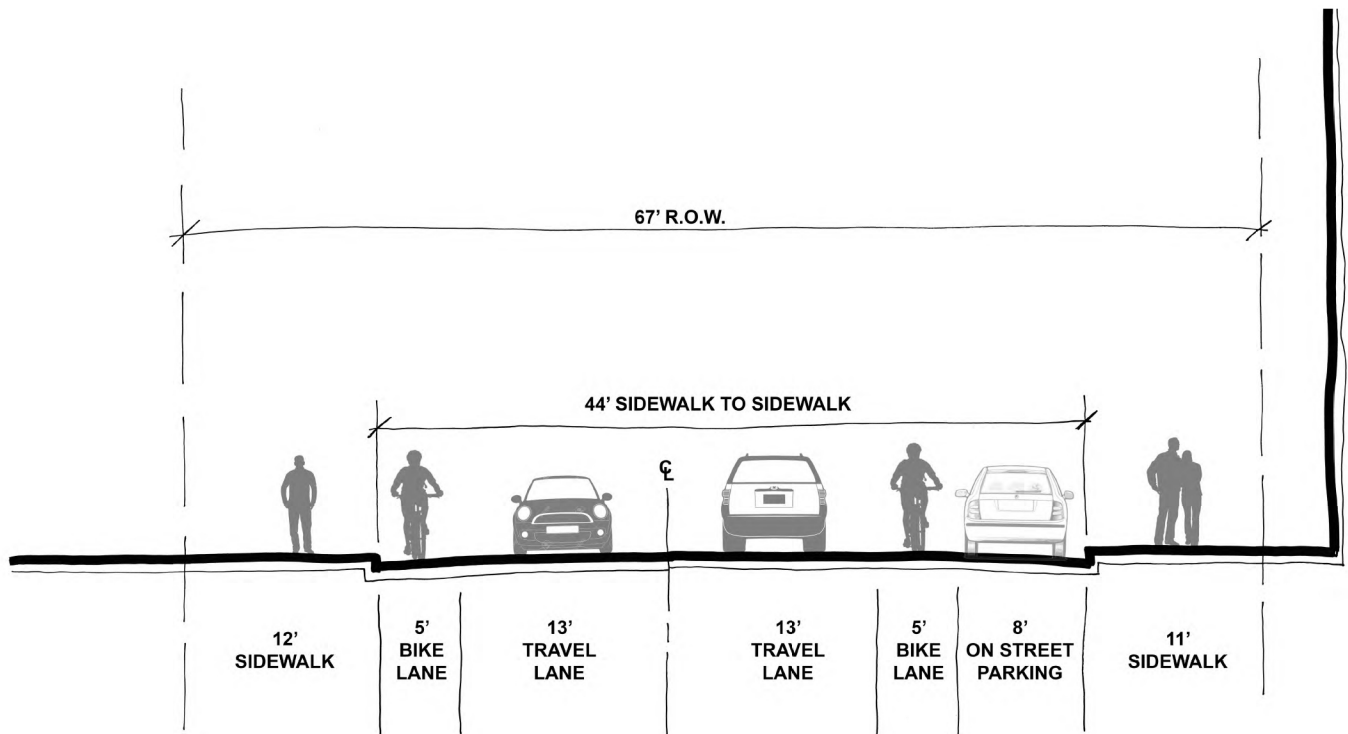


SECTION A - EXISTING ALEXANDER ST. TO SOUTH UNION

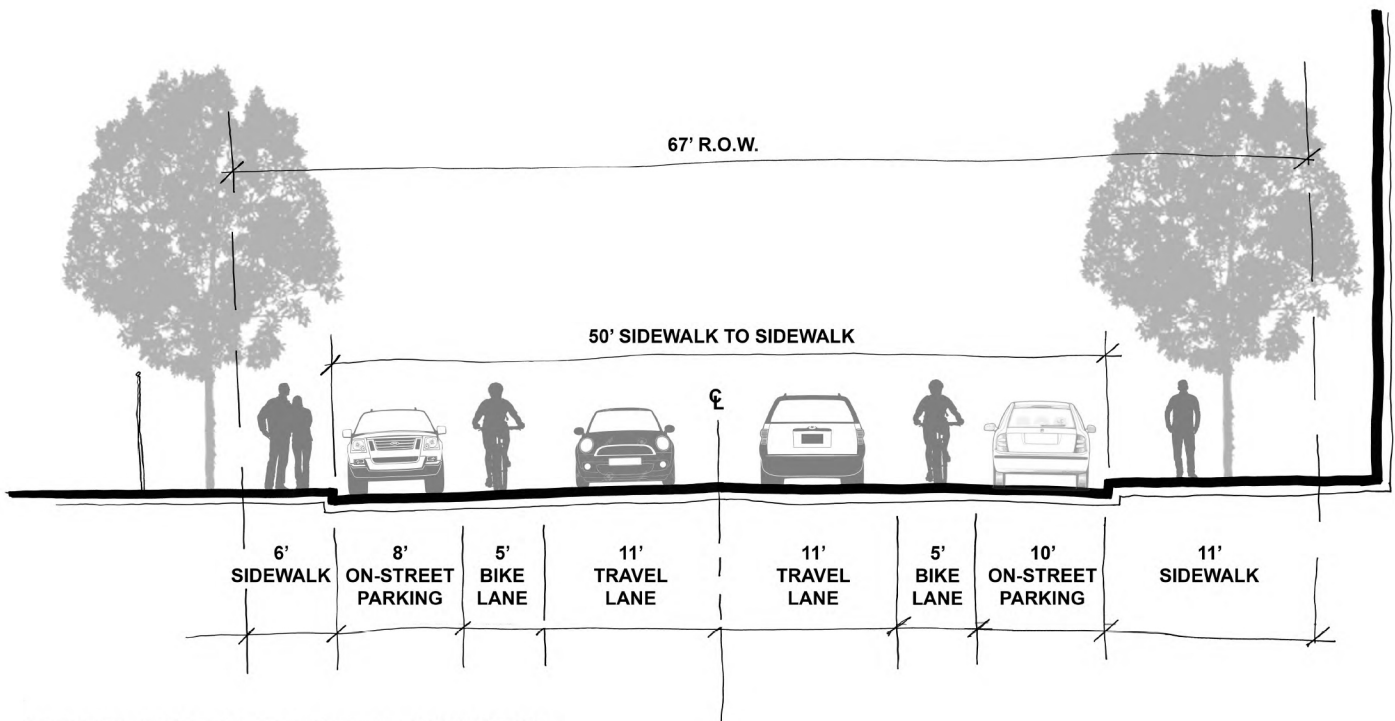


SECTION A - PROPOSED ALEXANDER ST. TO SOUTH UNION

Figure 17 - ALEXANDER STREET / SOUTH UNION SECTION

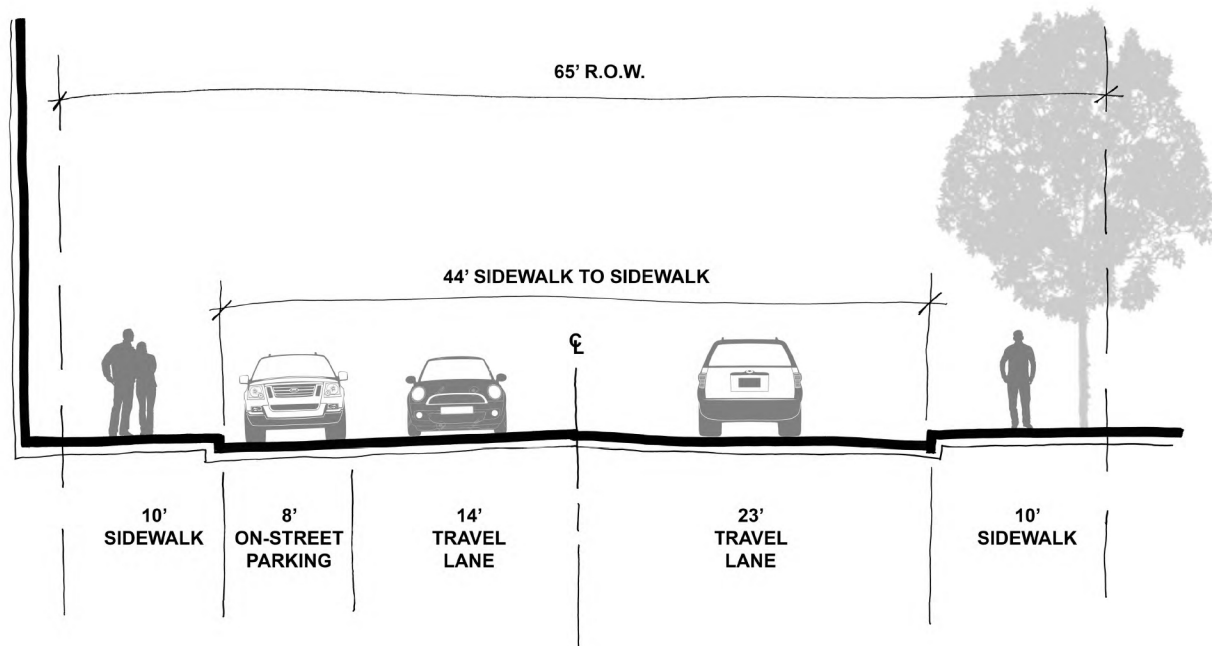


SECTION B - EXISTING AVERILL ST. TO ALEXANDER ST.

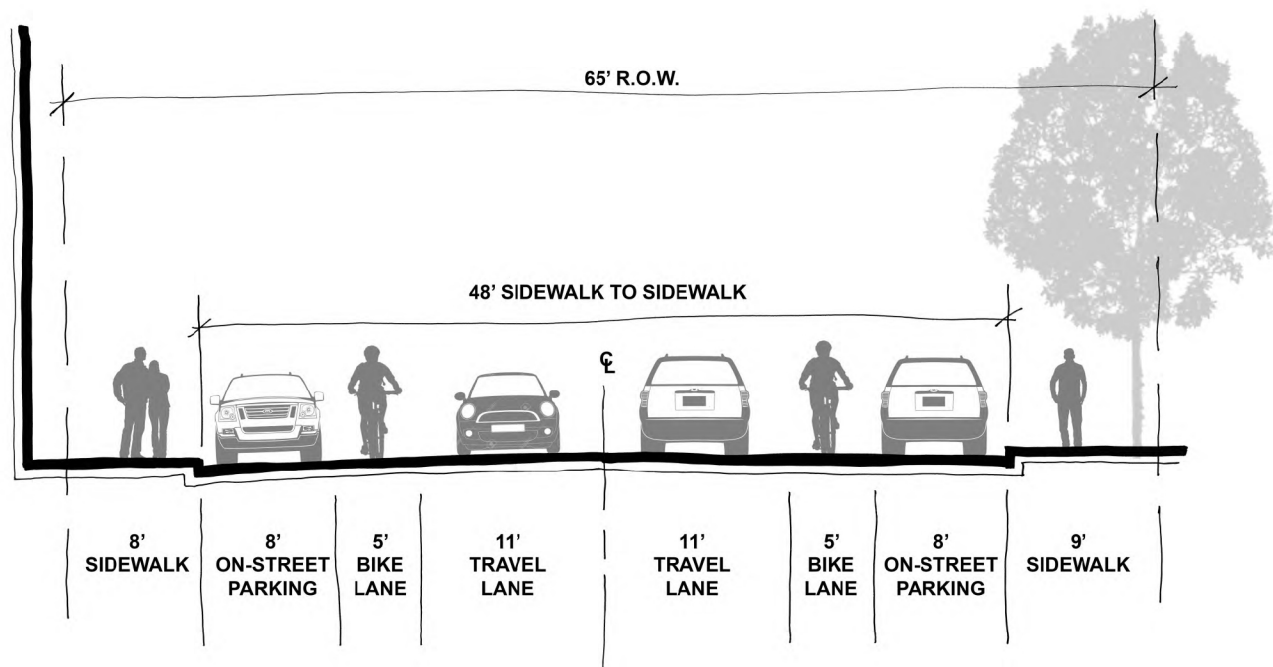


SECTION B - PROPOSED AVERILL ST. TO ALEXANDER ST.

Figure 18 - AVERILL STREET / ALEXANDER STREET SECTION



SECTION C - EXISTING RUTGERS ST. TO OXFORD ST.



SECTION C - PROPOSED RUTGERS ST. TO OXFORD ST.

Figure 19 - RUTGERS STREET TO OXFORD STREET SECTION

7.0 IMPLEMENTATION ACTION PLAN

7.1 Implementation Strategies

As summarized in Section 6, the recommendations to improve parking and mobility in the Monroe Avenue corridor are best implemented through a coordinated effort, spearheaded by the City of Rochester in cooperation with other public agency stakeholders. The private sector may also play a role in implementation. The first step will be creation of a committee, responsible for coordinating implementation activities and evaluating the effectiveness of the short-, mid- and long-term strategies. This committee should be led by the City of Rochester and include MCDOT, other responsible parties, and those that offer technical resources.

The following action plan provides the timeframes and responsible party/technical resources for each implementation strategy to improve parking and mobility within the Monroe Avenue corridor. In addition to physical improvements necessary to improve parking and mobility, Section 7.2 below describes additional planning studies that will need to be completed to move additional actions forward.

| RECOMMENDATION / STRATEGY | TIMEFRAME | | | RESPONSIBLE PARTY + TECHNICAL RESOURCES | FUNDING |
|--|-----------|-----|------|--|--|
| | Short | Mid | Long | | |
| 1, 2, 6 Change, modify and install new on-street signage. | X | X | | <ul style="list-style-type: none"> City of Rochester Monroe County DOT | <ul style="list-style-type: none"> City of Rochester capital budget |
| 3 Install wayfinding signs and destination signs at public parking facilities. | X | | | <ul style="list-style-type: none"> City of Rochester Monroe County DOT Private property owners | <ul style="list-style-type: none"> Capital Budget Property owner |
| 4 Update the City's parking website to include public parking facilities within the study area | X | | | <ul style="list-style-type: none"> City of Rochester | <ul style="list-style-type: none"> Capital Budget |
| 5 Shift parking enforcement policy to customer-friendly approach including incremental fines. | X | | | <ul style="list-style-type: none"> City of Rochester Bureau of Parking | <ul style="list-style-type: none"> Capital Budget |
| 7, 8, 9 Install parking meter technology and create a parking benefit district. | | X | X | <ul style="list-style-type: none"> City of Rochester Bureau of Parking City of Rochester Department of Neighborhood and Business Development | <ul style="list-style-type: none"> Capital Budget |
| 10 Add transit amenities (seating, bus shelters) at bus stops. | X | | | <ul style="list-style-type: none"> Rochester-Genesee Transportation Authority | <ul style="list-style-type: none"> Rochester-Genesee Transportation Authority capital budget Genesee Transportation Council Transportation Improvement Program |
| 11 Improve crosswalks, detectable warning pads, crosswalks, and install mid-block crossings. | X | | | <ul style="list-style-type: none"> City of Rochester Traffic Control Board Monroe County DOT | <ul style="list-style-type: none"> City of Rochester capital budget Genesee Transportation Council Transportation Improvement Program |

| (Continued) RECOMMENDATION / STRATEGY | | TIMEFRAME | | | RESPONSIBLE PARTY + TECHNICAL RESOURCES | FUNDING |
|--|--|-----------|-----|------|--|---|
| | | Short | Mid | Long | | |
| 10, 12 | Continue adding bicycle lanes and sharrows, bicycle parking, and bicycle shelters. | X | | | <ul style="list-style-type: none"> City of Rochester | <ul style="list-style-type: none"> City of Rochester capital budget Genesee Transportation Council Transportation Improvement Program |
| 13, 14, 16 | Expand transit service routes and evaluate impact and effectiveness of Bus Stop Optimization effort | | X | X | <ul style="list-style-type: none"> Rochester-Genesee Transportation Authority | <ul style="list-style-type: none"> Capital budget |
| 15 | Add a neighborhood shuttle service during nights, weekends, and special events. | | X | | <ul style="list-style-type: none"> Rochester-Genesee Transportation Authority City of Rochester Private property owners | <ul style="list-style-type: none"> Capital budget |
| 18 | Expand on-street ADA parking. | X | | | <ul style="list-style-type: none"> City of Rochester Monroe County DOT | <ul style="list-style-type: none"> Capital Budget |
| 19 | Facilitate the creation of shared-parking lots. | X | | | <ul style="list-style-type: none"> City of Rochester | <ul style="list-style-type: none"> City of Rochester capital budget Private property owners |
| 20, 23, 24 | Expand availability of off-street parking, explore acquisition of private lots for public use, and convert surface lots to structured parking. | X | X | X | <ul style="list-style-type: none"> City of Rochester | <ul style="list-style-type: none"> City of Rochester capital budget |
| 21 | Adjust travel lane geometry to add on-street parking. | | X | | <ul style="list-style-type: none"> City of Rochester Monroe County DOT | <ul style="list-style-type: none"> City of Rochester capital budget Genesee Transportation Council Transportation Improvement Program |

7.2 Future Planning Needs

As a result of the public outreach efforts, public survey, field observations, and results of the analyses, further planning and evaluation is needed for some recommendations. Each future planning need is identified by the anticipated timeframe, responsible party, technical resource, and funding source.

| | FUTURE PLANNING NEEDS | TIMEFRAME | | | RESPONSIBLE PARTY + TECHNICAL RESOURCES | FUNDING |
|--------|--|-----------|-----|------|---|--|
| | | Short | Mid | Long | | |
| 17 | Continue parking utilization counts | X | X | X | <ul style="list-style-type: none"> City of Rochester | <ul style="list-style-type: none"> Capital budget |
| 8, 121 | Conduct traffic impact analysis for intersection changes. | | X | X | <ul style="list-style-type: none"> City of Rochester Traffic Control Board Monroe County DOT | <ul style="list-style-type: none"> Capital budgets |
| 13, 14 | Evaluate a cross-neighborhood transit route and the effectiveness of the Bus Stop Optimization effort. | | X | | <ul style="list-style-type: none"> Rochester-Genesee Transportation Authority | <ul style="list-style-type: none"> Genesee Transportation Council Unified Planning Work Program |
| 15 | Conduct route planning for a neighborhood shuttle service. | | X | | <ul style="list-style-type: none"> City of Rochester Rochester-Genesee Transportation Authority | <ul style="list-style-type: none"> Genesee Transportation Council Unified Planning Work Program |
| 16 | Study the feasibility of adding a streetcar or light rail transit route. | | | X | <ul style="list-style-type: none"> Rochester-Genesee Transportation Authority | <ul style="list-style-type: none"> Genesee Transportation Council Unified Planning Work Program |
| 18 | Examine the distribution and placement of new on-street ADA parking. | X | | | <ul style="list-style-type: none"> City of Rochester Monroe County DOT | <ul style="list-style-type: none"> Capital Budget |
| 22 | Evaluate parking-related requirements and restrictions within the City Code and update the Code, as appropriate. | | X | | <ul style="list-style-type: none"> City of Rochester | <ul style="list-style-type: none"> Genesee Transportation Council Unified Planning Work Program |