Town of Vienna

Town of Vienna Commercial Corridor's

Existing Parking Conditions

April 2023

NELSON NYGAARD

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EXECUTIVE SUMMARY

The Town of Vienna is a small-town community with traditional neighborhoods, historic streets, and commercial corridors nestled within bustling Northern Virginia. To support the diversity of land uses in the Town, the Town of Vienna has initiated a parking analysis of the Town's Commercial Corridors, which includes businesses, restaurants, stores, and other commercial activity along Maple Avenue, Cedar Lane, Church Street, Park Street, Mill Street, Dominion Road, and Center Street (the study area, as shown in Figure 1). The Parking Study will help the Town understand the nature of parking in light of emerging trends and plan for the Town's needs of the next ten years while also informing the Town's on-going Zoning Code update. The Town has identified the following goals and objectives for this parking study:

1. Capacity: A quantitative assessment of the supply and demand for study area parking, to include a determination on the need for additional parking or whether there is excess parking capacity in both the short-term and future development scenarios
2. Maintenance & Management: Strategies to improve the maintenance and management of publicly and privately owned surface parking lots, garages, and on-street parking stalls, to include an evaluation of shared parking systems.
3. Operations: An evaluation of the days and hours of parking enforcement, current parking restrictions, and associated wayfinding signage effectiveness.
4. Safety & Convenience: Ways to provide safe, convenient parking for all users of Vienna including residents, employees and visitors as well as accommodations for special events.
5. Pricing: A determination of the need and feasibility for pricing of current garages, surface lots, and on-street parking.
6. Design: Recommended design improvements to increase the efficiency of parking facilities, to include improvements to parking-related signs and other wayfinding, and/or new parking facilities.

Parking Inventory Key Findings

- 5,127 inventoried spaces are off-street
- Almost all of the off-street parking spaces are privately owned by commercial enterprises, but available for public use by business patrons.
- 94 inventoried spaces are on-street
- Approximately 99% of all inventoried spaces in the study area are off-street.
- Less than 1% of the inventoried spaces are reserved for ADA use.
- Of the inventoried parking spaces in the study area, less than 1% are publicly owned (the Public Library).

Weekday Parking Utilization Key Findings

- Parking activity was the lowest in the 6 p.m.-7 p.m. hour with 29% of all spaces occupied.

- Off-street parking utilization peaked during the lunch period (12 p.m.-2 p.m.) on the studied Wednesday with just less than half of all spaces utilized (45%).
- During the lunch hour, 3,184 off-street spaces remained empty throughout the study area.
- Following the peak period, the number of occupied spaces began to steadily decline throughout the rest of the day.
- On-street parking activity was the lowest in the 10 a.m.-11 a.m. hour with 36% spaces occupied.
- Weekday on-street parking space utilization peaked during the 12 p.m.-1 p.m. hour with 65% spaces occupied (leaving over a third of all on-street spaces vacant).
- Average weekday utilization (as a percentage occupied) for on-street parking was 20% higher than off street average weekday utilization.

Weekend Utilization Key Findings

- On weekends, off-street parking utilization peaked at the 12 p.m.-2 p.m. period at 39% utilization and then began to gradually decline to the 6 p.m.-7 p.m. hour where there was a 27% utilization of spaces.
- On-street parking activity was generally higher than on weekdays peaking at 78% occupancy at 2 p.m.-3 p.m. The lowest utilization was in the 5 p.m.-6 p.m. hour with 51% utilization.
- The average Saturday utilization for on-street parking is 31% higher (as a percentage of spaces occupied) than the off-street average utilization on Saturday, consistent with Weekday on- and off-street average utilization differences.

Public Parking Survey Key Findings

- The majority of survey respondents come to the Town's commercial corridors to eat or drink (84.60%).
- Maple Avenue and Church Street are the most common destinations for respondents.
- Ninety percent of survey respondents visit Vienna at least once per week
- Over 90% of survey respondents travel to the study area in a private automobile whether driving alone or driving with others
- Most survey respondents typically park in a free parking lot or garage when coming to Vienna.
- Most respondents park on-site or on the same block as their destination. If not on the same block, they likely park about one block away.
- Approximately 36% of respondents park for one to two hours when visiting the study area and 33% park for 30 minutes to one hour. Very few respondents park for more than three hours.
- Respondents were asked to select the most important factors when determining where to park. Location and proximity to destination (91%) and ease of finding a space (85%) were

selected as the top factors in determining where to park. Other common responses were cost or price of parking (38%), type of parking facility (32%) and familiarity with location and the facility (22%).

- Respondents would rather walk further to their destination for free or cheaper parking, rather than paying more to be closer to their final destination. Respondents also prefer to drive to and park at each destination, rather than parking once and walking, biking, or taking transit between destinations in Vienna.
- Respondents shared that Vienna's free parking, parking locations, and walkability of the Town work well. However, lack of available parking, residential spillover parking, and a lack of shared parking make parking difficult. Respondents would improve parking by creating additional free parking, a parking garage, shared parking agreements, improving active transportation and public transit infrastructure and traffic flow on Maple Avenue, and increased parking requirements for new developments.

1 INTRODUCTION

For a small-town community in the bustling Northern Virginia/National Capital region, the Town of Vienna is a distinctive place with traditional and charming neighborhoods. The Maple Avenue corridor includes major retail, specialty shops, restaurants and cafés, and other local businesses. Visitors and residents alike can walk along historic Church Street or enjoy Windover Heights and other historic areas. To support and improve these diverse places, the Town's 2019 Strategic Plan emphasizes the importance of enhancing traffic safety, promoting multimodal transportation options, and supporting economic vitality through transportation improvements.

In response to the 2019 Strategic Plan, Multimodal Transportation and Land Use Study (2019), the Economic Development Strategy and current Zoning Code update process (Code Create Vienna), the time is right to evaluate the effectiveness of the existing parking program and identify opportunities to better manage current and future demand. This includes reducing overall demand where feasible, shifting some demand toward any underutilized options, and keeping availability at desirable levels among the most convenient, high-demand spaces.

The Town of Vienna has initiated a parking analysis of the Town of Vienna's Commercial Corridors, which includes businesses, restaurants, stores, and other commercial activity along Maple Avenue, Cedar Lane, Church Street, Park Street, Mill Street, Dominion Road, and Center Street (the study area, as shown in Figure 1). The Parking Study purpose is to help the Town understand the nature of parking in light of emerging trends and plan for the Town's needs of the next ten years while also informing the Town's on-going Zoning Code update.

Project Goals

The Town has identified the following goals and objectives for this parking study:

Goals & Objectives

The Town has identified the following goals and objectives for this parking study:

7. Capacity: A quantitative assessment of the supply and demand for study area parking, to include a determination on the need for additional parking or whether there is excess parking capacity in both the short-term and future development scenarios
8. Maintenance & Management: Strategies to improve the maintenance and management of publicly and privately owned surface parking lots, garages, and on-street parking stalls, to include an evaluation of shared parking systems.

9. Operations: An evaluation of the days and hours of parking enforcement, current parking restrictions, and associated wayfinding signage effectiveness.
10. Safety & Convenience: Ways to provide safe, convenient parking for all users of Vienna including residents, employees and visitors as well as accommodations for special events.
11. Pricing: A determination of the need and feasibility for demand-based pricing or changes to current parking rates for garages, surface lots, and on-street parking.
12. Design: Recommended design improvements to increase the efficiency of parking facilities, to include improvements to parking-related signs and other wayfinding, and/or new parking facilities.

2 EXISTING CONDITIONS OVERVIEW

The study is focused along the Virginia State Route 123 (Maple Avenue) that runs through the study area. The study area, shown in Figure 1, includes areas along the section of Maple Ave, which runs southwest to northeast, from James Madison Dr to Beulah Rd NE. Neighboring streets of interest that ran either parallel or intersect Maple Ave included Church St NE (SW to NE), Dominion Rd NE (NW to SE), and Mill St NE (NW to SE). The study area was selected through discussions and feedback from Town Council, residents and businesses and Town staff.

Figure 1: Study Area

Along both Maple Avenue and Church Street, commercial property land uses predominate in varied degrees of intensity, scale, and mix. Townhouse and multi-family zones create a transition between the much lower-density commercial and single-family detached home sections that make up the majority of the land use in the Town in regions that are adjacent to Maple Avenue. This transitional sector acts as a barrier between residential areas and commercial areas.

PARKING INVENTORY

The initial analysis of the study area's existing parking conditions attempts to understand more than simple system wide utilization figures. Spatial inventory analysis reveals where parking locations are reserved for employees, visitors, and persons with disabilities. Spatial utilization analysis looks at the difference between perceived parking availability, and actual availability in parking facilities.

In order to be comprehensive and fully-understand the dynamics of parking in a study area, all on- and off-street parking assets should be evaluated, including private parking. While public parking is typically the most discussed and prominent parking resource for a downtown's businesses, a significant amount of business activity is generated by people using privately owned parking. Furthermore, when assessing the true parking demand, it is necessary to know how public and private parking is used by to accurately understand how parkers within the study area behave.

Parking Inventory Overview

All parking areas within the study area including on- and off-street parking lots (public and private) were inventoried to get an understanding of the overall parking demand and use during the data collection periods. Approximately 5,127 total functional parking spaces were inventoried, comprised of 94 on-street and 5,033 off-street spaces. Figure 2 depicts the parking spaces available within each lot and on-street block and Table 1 details the number of spaces available by location.

Figure 2: Parking Inventory

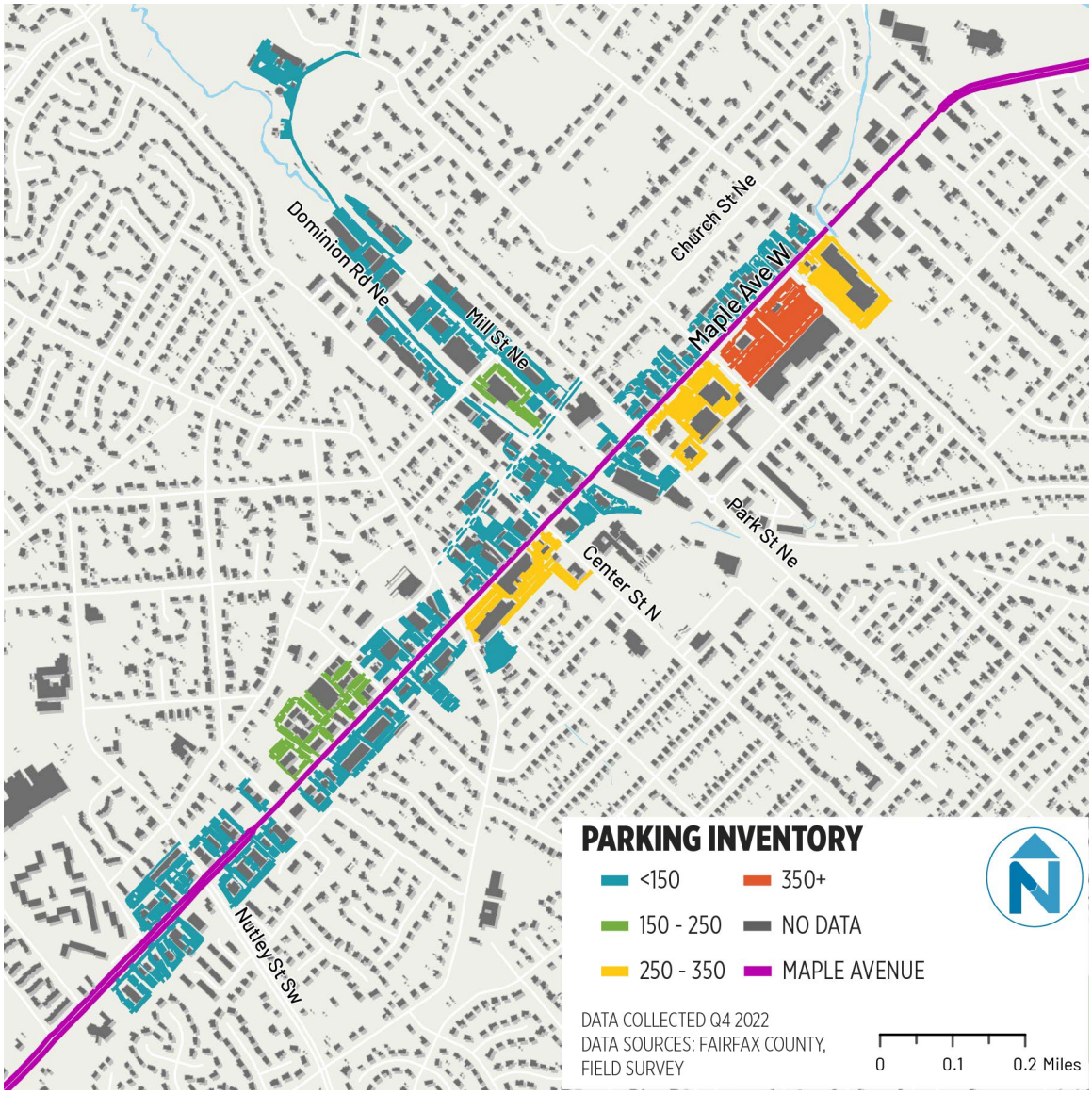

Table 1 Existing Off-Street Parking Inventory and Ownership

Regulation	Parking Stock	Ownership	% of Total
Private Parking	5,033	Various Owner	99%
Public Parking	60	Town of Vienna	1%
ADA Specific	47*	Various Owners	<1%*
Total	5,127	-	100%

**Percentage/Stock not included in total referencing public and private parking together.*

Table 2: Existing On-Street Parking Inventory and Ownership

Regulation	Parking Stock	Ownership	% of Total
Private Parking	-	-	-
Public Parking	94	Town of Vienna	100%
ADA Specific	-	-	-
Total	94	-	100%

PARKING INVENTORY: KEY FINDINGS

- 5,127 inventoried spaces are off-street
- Almost all of the off-street parking spaces are privately owned by commercial enterprises, but available for public use by business patrons.
- 94 inventoried spaces are on-street
- Approximately 99% of all inventoried spaces in the study area are off-street.
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Parking Regulation

Parking options in the study area include on-street parking along Church Street, Center Street and Mill Street, as well as Town or Privately-owned commercial/retail off-street parking lots. The Town-owned parking lot is free and available to the public on a daily basis; the on-street parking spaces are also free for public use, however they are limited to two-hour use daily between 9:00 a.m. – 5:00 .p.m. Monday to Friday. There are a number of parking spaces dedicated to users of the Washington and Old Dominion Trail that runs northwest – southeast, bisecting the study area creating an axis with Maple Ave at the Town Green and Trailside Parks. These spaces are owned by NOVA Parks and are leased by businesses adjacent to the trail. Some private lots also offer amenities for alternative modes of transportation such as bicycle parking. The parking lot of the Wawa convenience store and

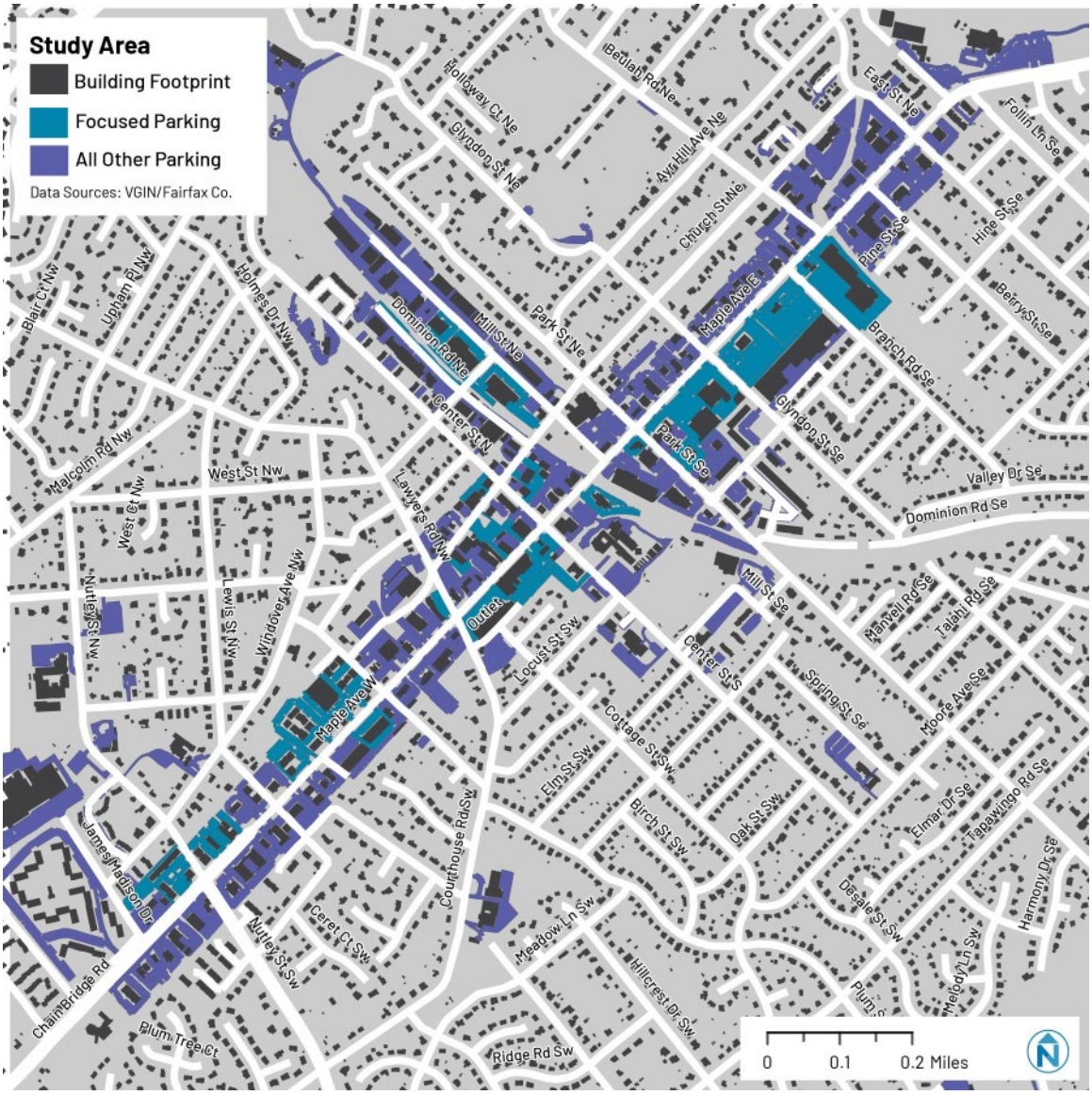
gas station at the corner of Maple Ave and Nutley St NW hosts seven parking spaces reserved for EV charging stations owned by Tesla (see in figure 3).

Figure 3: Tesla Supercharger Station at Wawa

PARKING UTILIZATION FINDINGS

This section documents and analyzes parking utilization counts for the study area, providing a snapshot of the time and location of parked cars for typical days. The Nelson\Nygaard survey team – – conducted parking utilization counts on two weekdays (Wednesday, October 19th, and November 9th, 2022) and weekend days (Saturday, October 22nd, and November 12th, 2022) during each day. On both Wednesdays and Saturdays, data collection began at 10AM with the last survey beginning at 6PM. Within the study area, on-street and off-street parking spaces noted by Town staff as potential high demand spaces (focused) were recorded every hour while the remaining spaces were recorded every 2-hours.

Figure 4 Parking Utilization Survey Areas



Parking may be at optimal capacity when there is at least one empty space per block face or along a typical row of parking, ensuring customer access to businesses but also indicating a busy commercial environment. This typically equates to a target of 15% vacancy per on-street block face and 10% vacancy off-street. If any block or parking facility has less availability than the target, it is effectively at its functional capacity and inhibits people from finding available spaces.

The study team considered the following in selecting dates to complete utilization counts:

- Capturing demand from typical study area activity
- Weather
- Construction schedules which may significantly impact roadways and/or parking supply
- Day of the week - Nelson\Nygaard has found that mid-weekdays such as Tuesday, Wednesday, and Thursday represent a typically busier day than Mondays or Fridays.

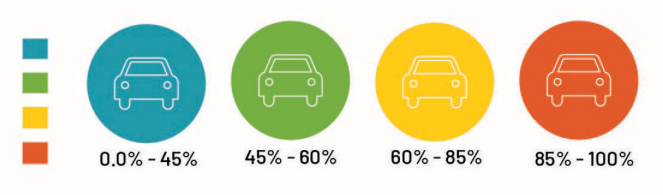
This section analyzes weekday temporal and spatial patterns and provides a sample of parking utilization of different facilities by type, ownership, and accessibility, followed by the same analysis for a weekend day. Although this data is incredibly valuable in highlighting how parking functions in the study area it is equally valuable to understand how users perceive the system. Utilization is just one piece of the puzzle; additional analysis of regulation, safety, signage, technology, and more will yield valuable additional insights.

Spatial Analysis of Parking Utilization

An important part of understanding how parking is managed in the study area is being able to see how various parking facilities and segments of on-street parking interact with each other throughout the course of a day. A chart of hourly utilization rates for one specific location is valuable but seeing how that location behaves among others located nearby can reveal patterns and trends not evident in numbers alone. For example, one lot may be completely full during several hours while another lot around the corner could have plenty of available spaces at that same time.

The parking utilization data collected for the study area was geo-coded and displayed on a series of maps. The maps show the use intensity of each parking facility by color-code, as explained in Figure 5. Maps depicting the hourly utilization percentages can be found in Appendix A

Figure 5: Spatial Parking Utilization Color Code



- **"Underutilized" Blue/Green** refers to utilization of under 60% occupancy. When a resource is underutilized, especially during peak periods, it should be viewed as having excess capacity and strategies for encouraging use should be considered. Blue facilities are extremely

underutilized and are good candidates for specially designated overflow parking during events and for long-term parking.

- **"Ideal" Yellow** refers to blocks and facilities with 60 to 85% utilization and represent actively-used resources. It is a "functionally full" sweet spot that is well-used but usually a space can be found. The nearer utilization levels approach the high end of this range, the more efficiently they are being utilized and nearing functional capacity. Change in regulation or pricing is not necessary.
- **"Warning" Orange** refers to utilization between 85 and 100% and is considered approaching full. While fully maximizing efficiency, the on-street parking or off-street facilities are full or near full, giving the impression of a lack of parking. Use discretion to consider deploying measures to reduce demand. Make changes if consistently in this category over many time periods or if facilities this occupied are adjacent to similarly occupied facilities.

Weekday Parking Utilization within Study Area

WEEKDAY UTILIZATION: OVERALL KEY FINDINGS

- Parking activity was the lowest in the 6 p.m.-7 p.m. hour with 29% of all spaces occupied.
- Off-street parking utilization peaked during the lunch period (12 p.m.-2 p.m.) on the studied Wednesday with just less than half of all spaces utilized (45%).
- During the lunch hour, 3,184 off-street spaces remained empty throughout the study area.
- Following the peak period, the number of occupied spaces began to steadily decline throughout the rest of the day.
- On-street parking activity was the lowest in the 10 a.m.-11 a.m. hour with 36% spaces occupied.
- Weekday on-street parking space utilization peaked during the 12 p.m.-1 p.m. hour with 65% spaces occupied (leaving over a third of all on-street spaces vacant).
- Average weekday utilization (as a percentage occupied) for on-street parking was 20% higher than off street average weekday utilization.

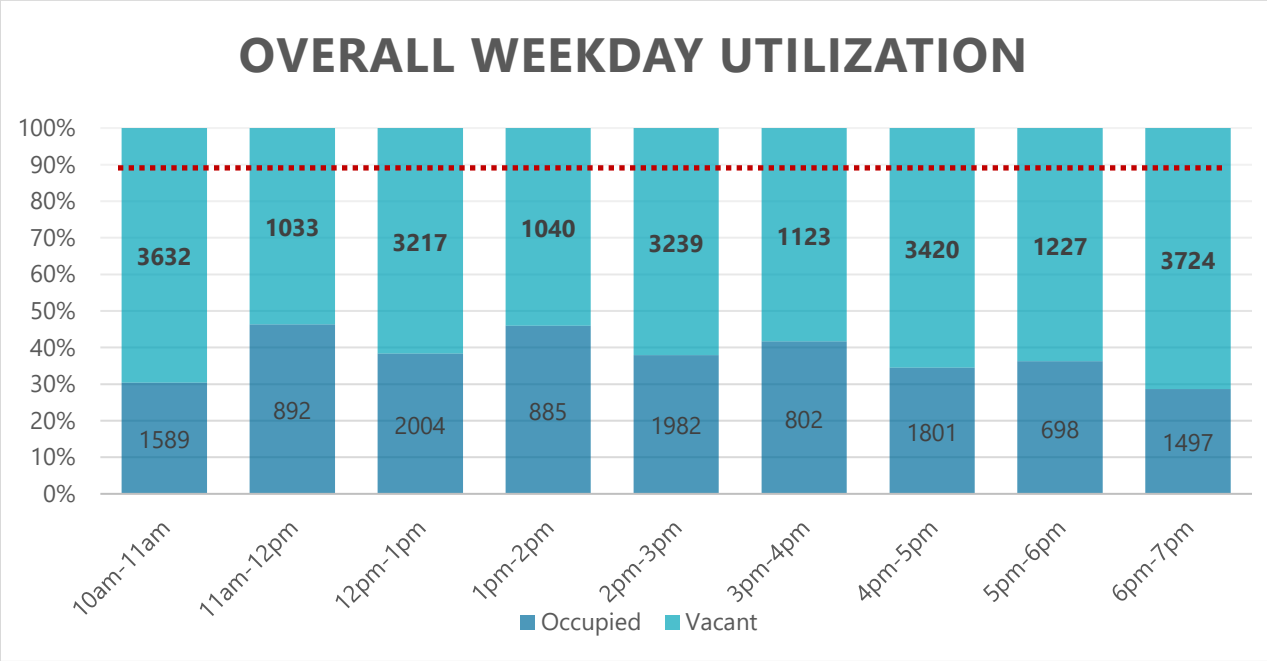
Utilization Patterns: Weekday

The series of charts on the following pages show parking utilization profiles throughout the weekday within the study area for both on and off-street parking inventory

Detailed Utilization Charts

Utilization charts reflect observed vacancies and occupancies. The red dotted lines indicate "functional capacity" of parking, i.e. 90% utilized/10% vacancy, a recognized national standard of when a parking area is effectively full. Occupancy above this line represents a functionally full condition where the user perceives a lack of available parking.

Table 3 Parking Utilization - Weekday - All Surveyed Spaces



Note: On-street and off-street parking spaces noted by Town staff as potential high demand spaces were surveyed every hour while the remaining spaces were surveyed every 2-hours

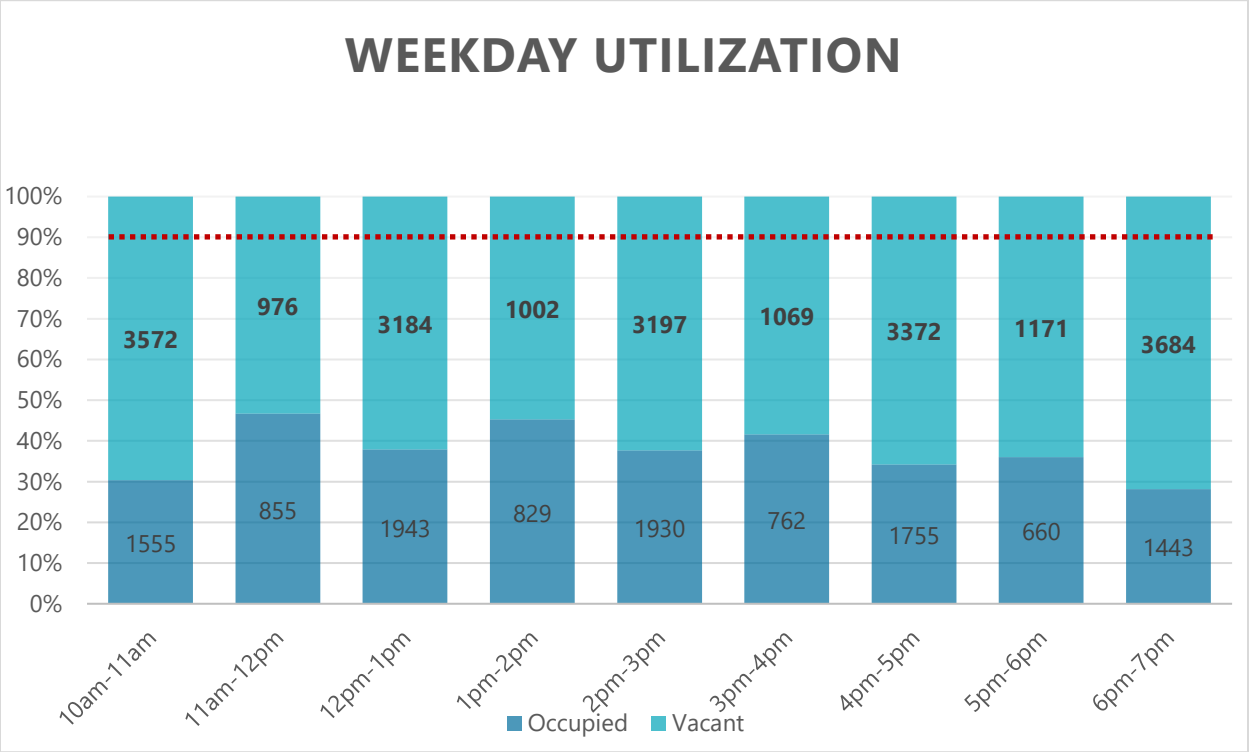
Publicly Accessible vs. Restricted-Access Off-Street Utilization

Publicly accessible parking is open to any driver, either for free or a fee. Surface lot parking may be privately-owned and still open to the public. If there were restricted spaces in the off-street parking lots, they were specifically for patrons of the business it was serving. On-street parking is completely owned by the Town of Vienna and is all publicly accessible.

On-Street vs. Off Street Utilization

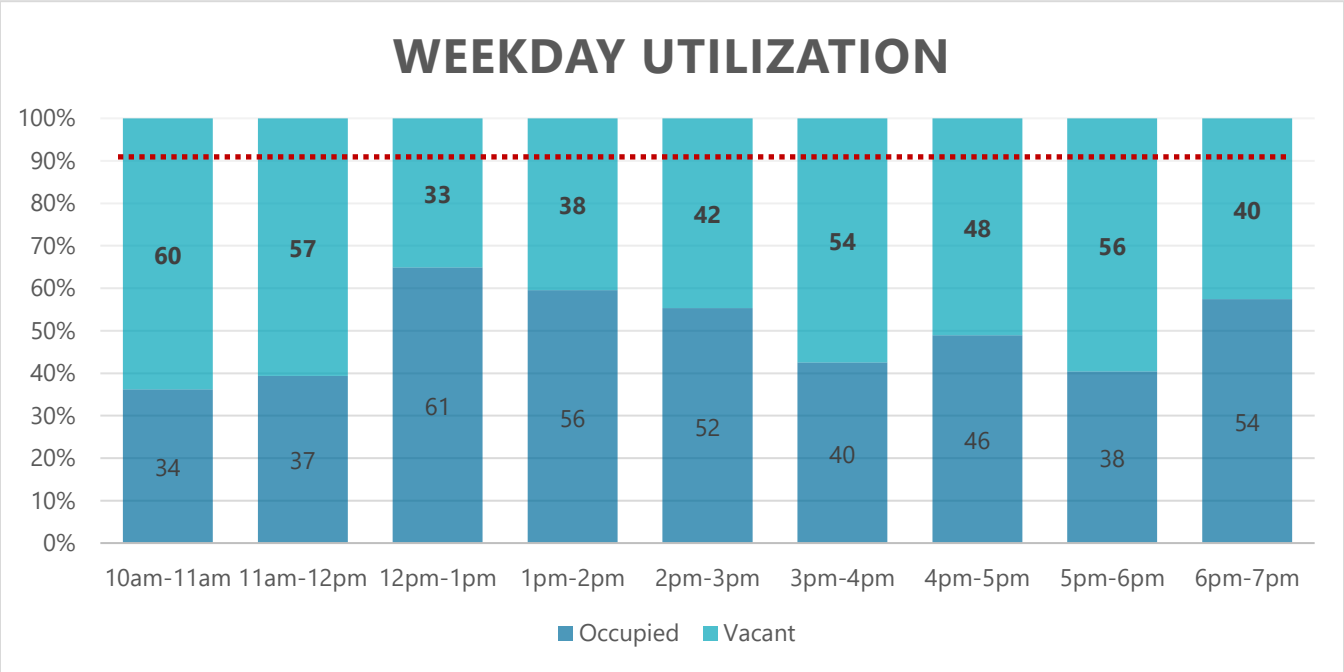
Utilization rates for on-street and off-street parking manifest themselves similarly over the course of the day, as shown in Table 4 and Table 5. In both cases, the major trend is peak parking use in the lunchtime period.

Table 4 Off-Street Parking Utilization – Weekday



Note: On-street and off-street parking spaces noted by Town staff as potential high demand spaces were surveyed every hour while the remaining spaces were surveyed every 2-hours

Table 5 On-Street Parking Utilization – Weekday



Note: All on-street spaces were surveyed every hour.

Overall Weekday Utilization: Observed Parking Patterns

The peak period of parking activity in the study area is between 12 p.m. and 2 p.m. when off-street parking is 45% full and on-street parking at 65% of full occupancy. In the evening after 6 p.m., parking utilization significantly decreased to 27% (off-street) 57% (on-street) occupancy.

While noting that these are aggregate numbers over the entire study area, specific lots do experience differing use dynamics. Those lots belonging to auto industry businesses, particularly along Dominion Road utilize parking spaces for the storage of cars in the process of receiving service. However, within the study area off-street parking utilization on a typical weekday means there are never less than 3,000 spaces available and 3,600 available off-street spaces after 6:00 p.m.

The remainder of the maps for Wednesday's parking utilization study can be found in Appendix A: Parking Utilization Maps.

Table 6: Overall Parking Utilization – Wednesday

Hour Block	10AM-11AM	11AM-12PM	12PM-1PM	1PM-2PM	2PM-3PM	3PM-4PM	4PM-5PM	5PM-6PM	6PM-7PM
Spaces utilized	1589	892	2004	885	1982	802	1801	698	1497
Percent Full	31%	49%	39%	48%	39%	44%	35%	38%	29%

Table 7 Off-Street Parking Utilization – Wednesday

Hour Block	10AM-11AM	11AM-12PM	12PM-1PM	1PM-2PM	2PM-3PM	3PM-4PM	4PM-5PM	5PM-6PM	6PM-7PM
Spaces utilized	1555	855	1943	829	1930	762	1755	660	1443
Percent Full	30%	47%	38%	45%	38%	42%	34%	26%	28%

Table 8 On-Street Parking Utilization – Wednesday

Hour Block	10AM-11AM	11AM-12PM	12PM-1PM	1PM-2PM	2PM-3PM	3PM-4PM	4PM-5PM	5PM-6PM	6PM-7PM
Spaces utilized	34	37	61	56	52	40	46	38	54
Percent Full	36%	39%	65%	60%	55%	43%	49%	40%	57%

Figure 6: Parking Utilization – Wednesday 10am

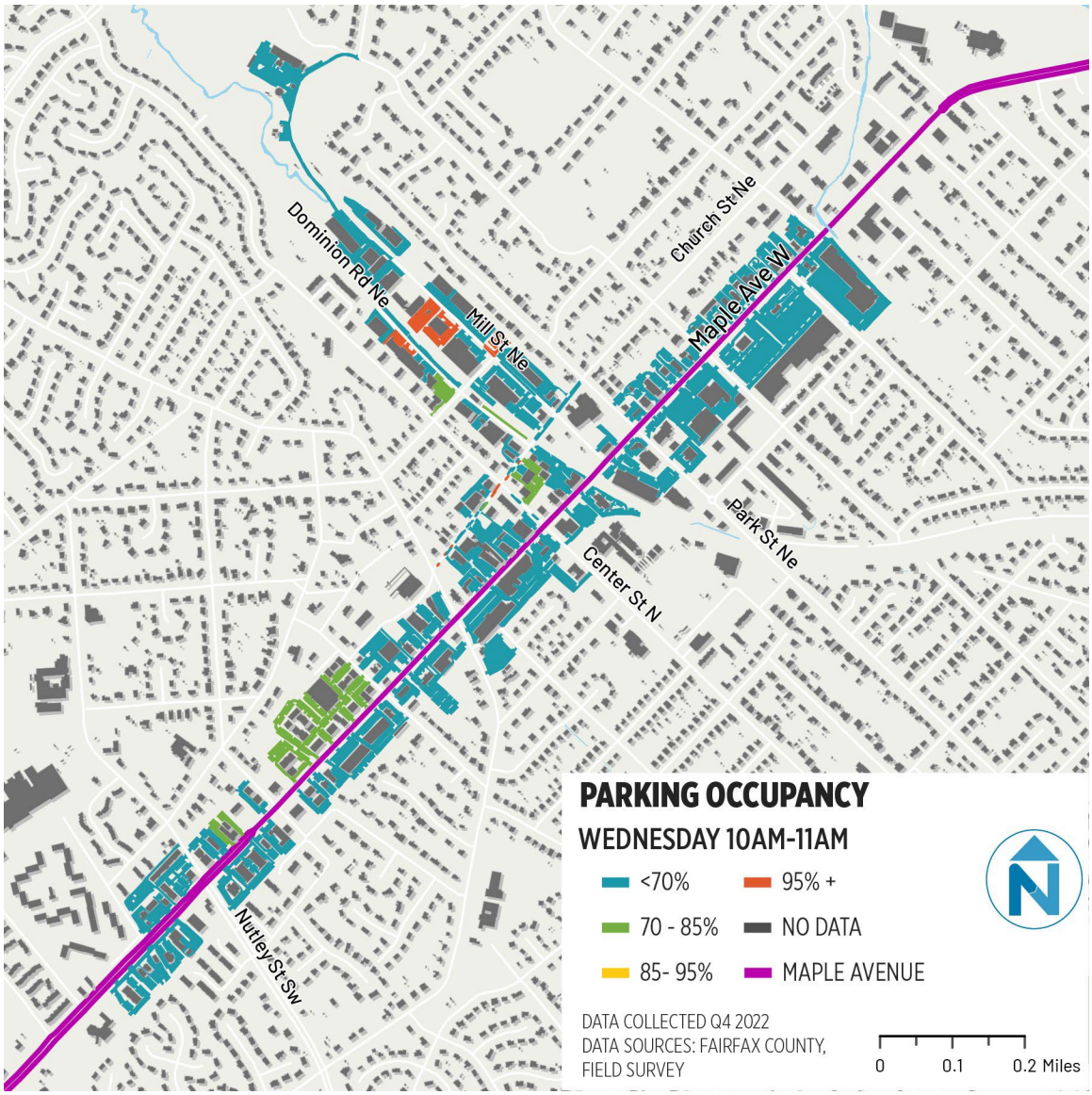


Figure 7: Parking Utilization – Wednesday 12.p.m.

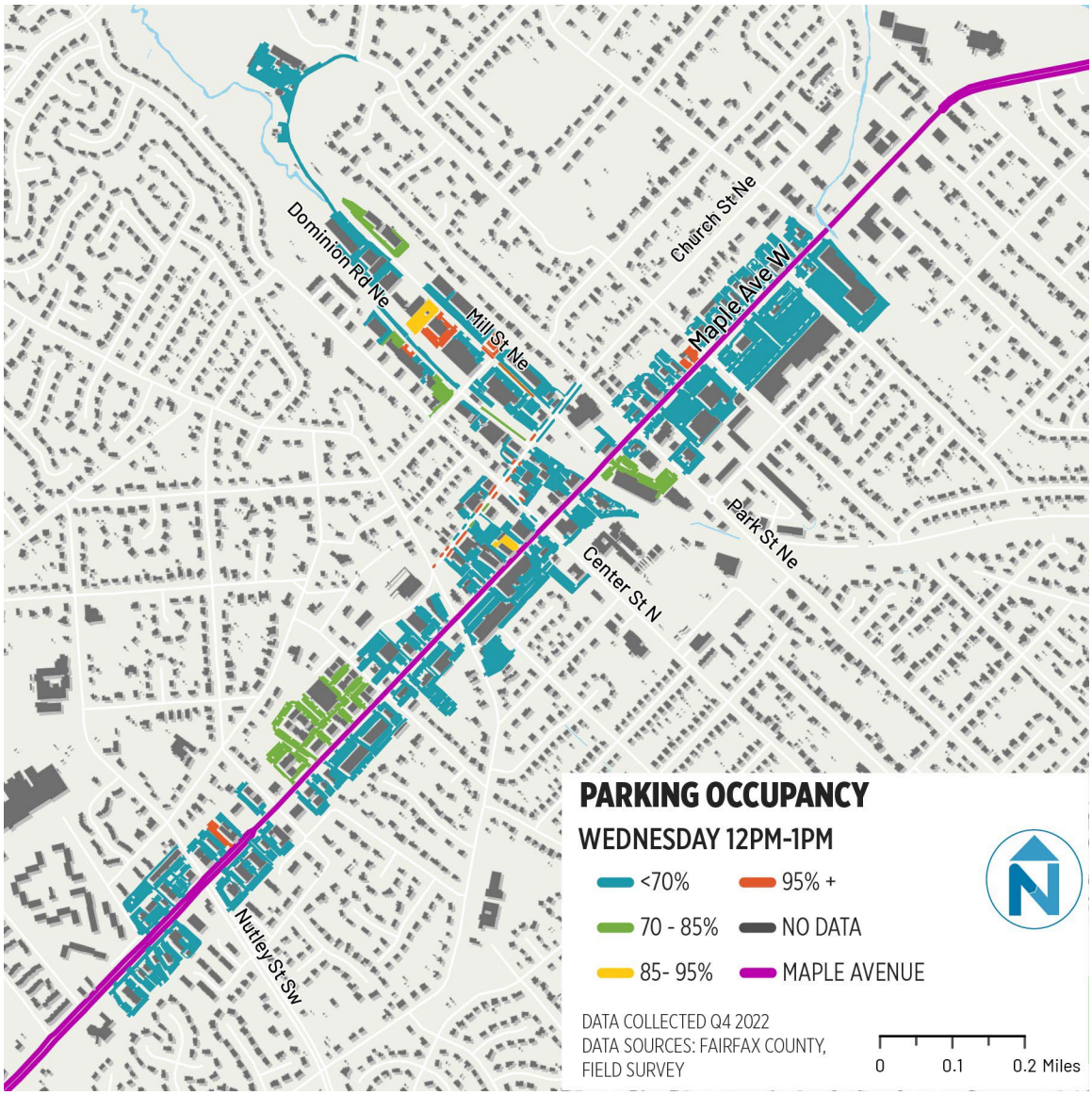
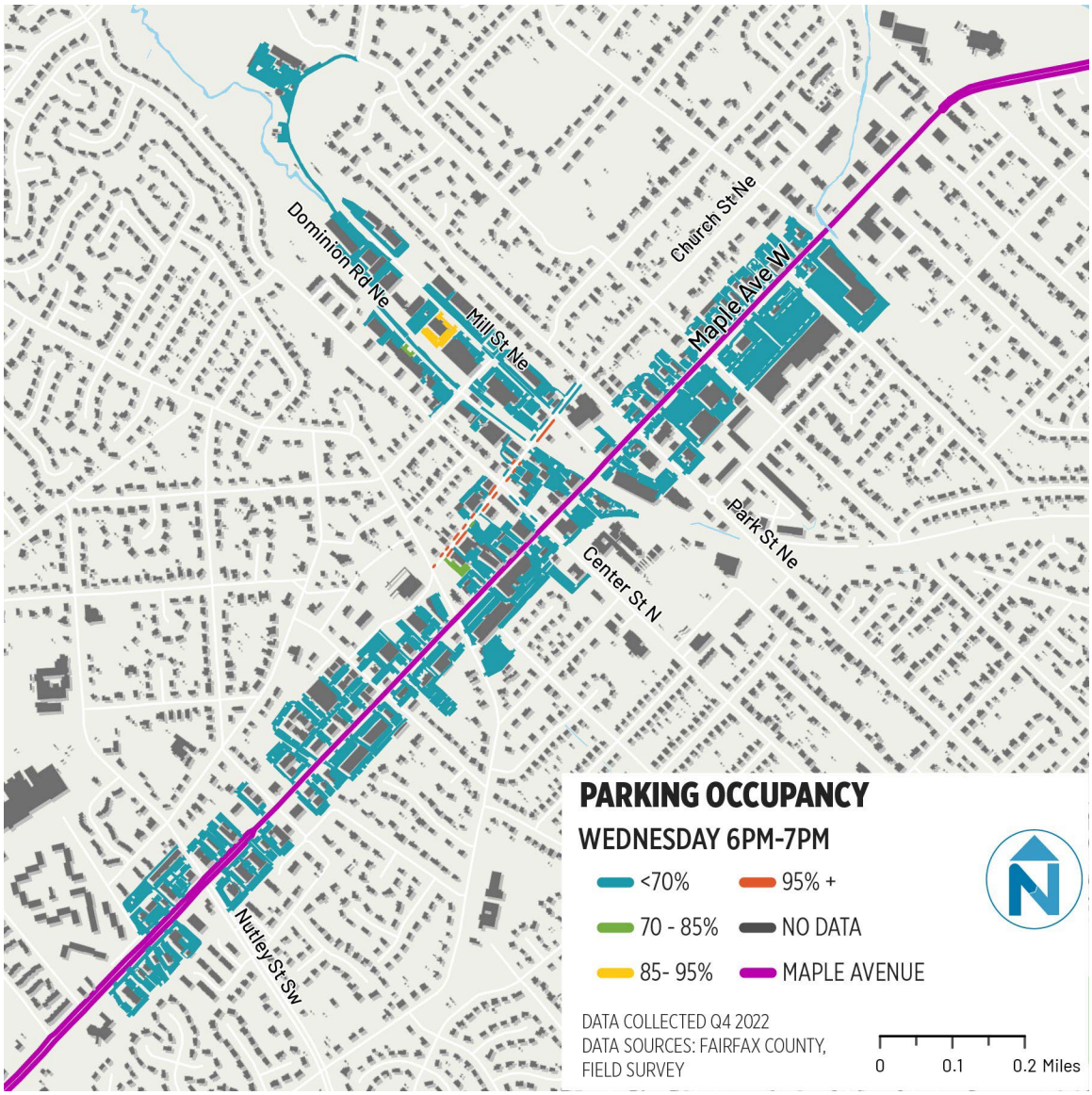


Figure 8: Parking Utilization – Wednesday 6.p.m.



Weekend Parking Utilization

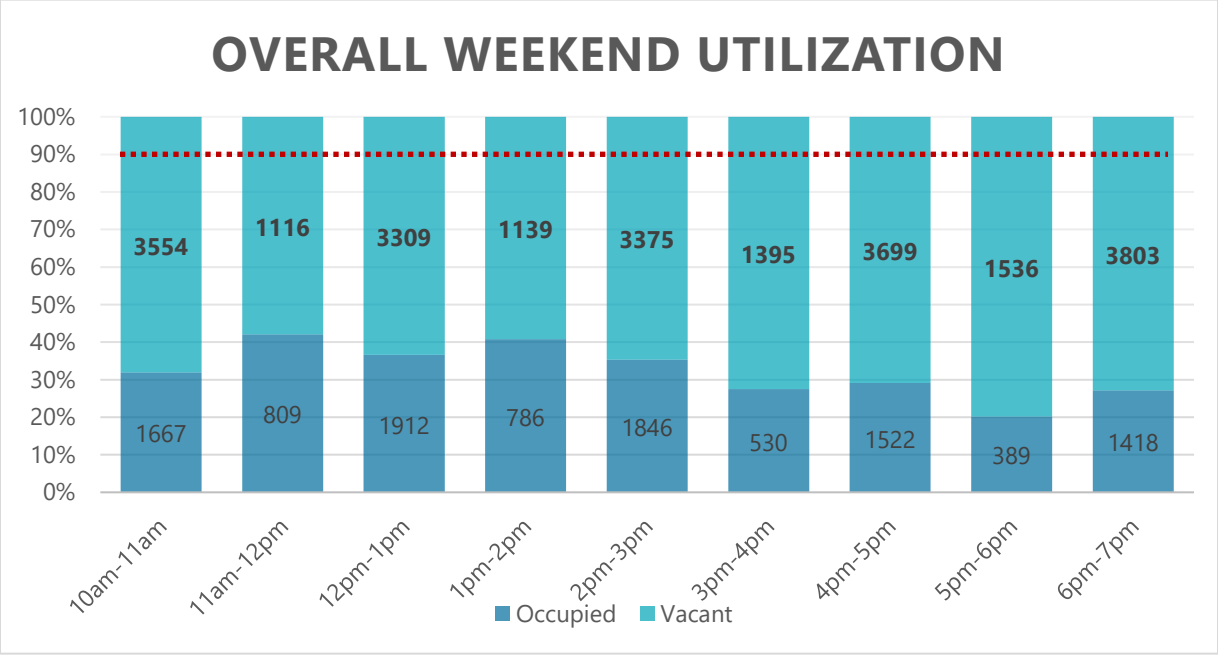
WEEKEND UTILIZATION: OVERALL KEY FINDINGS

- On weekends, off-street parking utilization peaked at the 12 p.m.-2 p.m. period at 39% utilization and then began to gradually decline to the 6 p.m.-7 p.m. hour where there was a 27% utilization of spaces.
- On-street parking activity was generally higher than on weekdays peaking at 78% occupancy at 2 p.m.-3 p.m. The lowest utilization was in the 5 p.m. -6 p.m. hour with 51% utilization.
- The average Saturday utilization for on-street parking is 31% higher as a percentage of spaces occupied) than the off-street average utilization on Saturday, consistent with Weekday on- and off-street average utilization differences.

Utilization Patterns: Weekend

The series of charts on the following pages show parking utilization profiles throughout the day for different zones within the Historic District for both on and off-street parking inventory.

Table 9 Parking Utilization – Weekend (Overall)

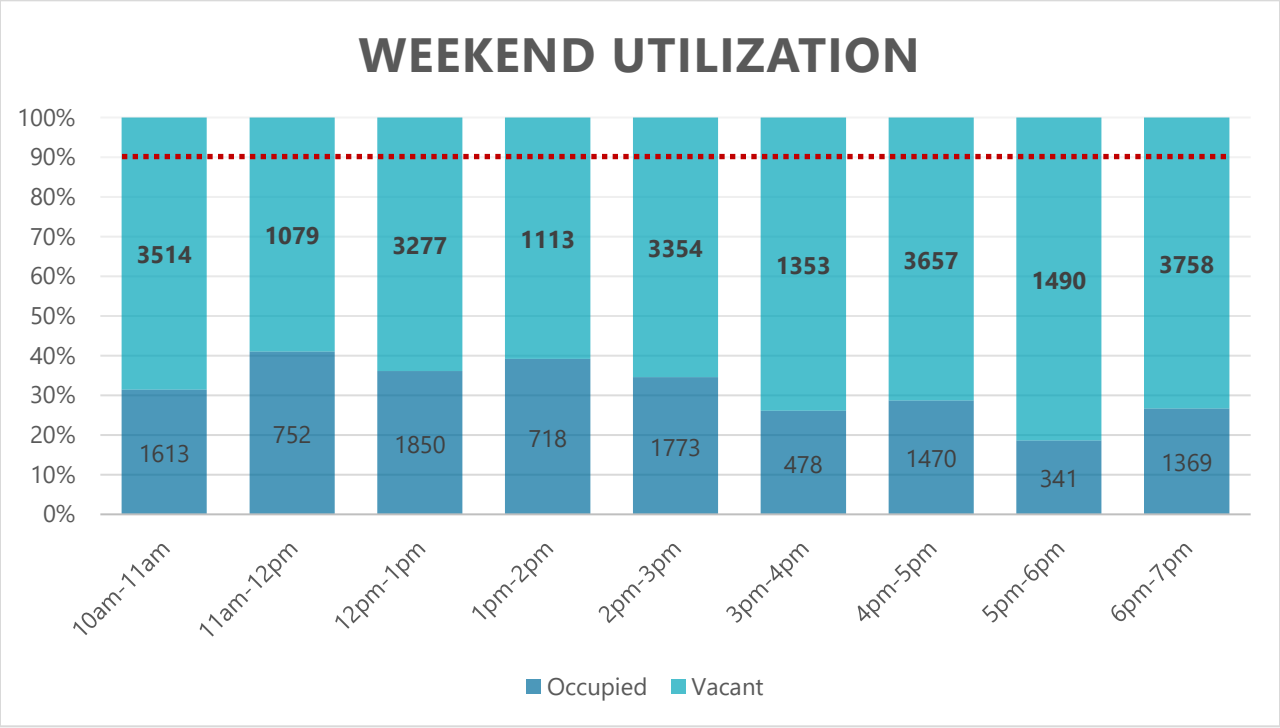


Note: On-street and off-street parking spaces noted by Town staff as potential high demand spaces were surveyed every hour while the remaining spaces were surveyed every 2-hours

On-Street vs. Off Street Utilization

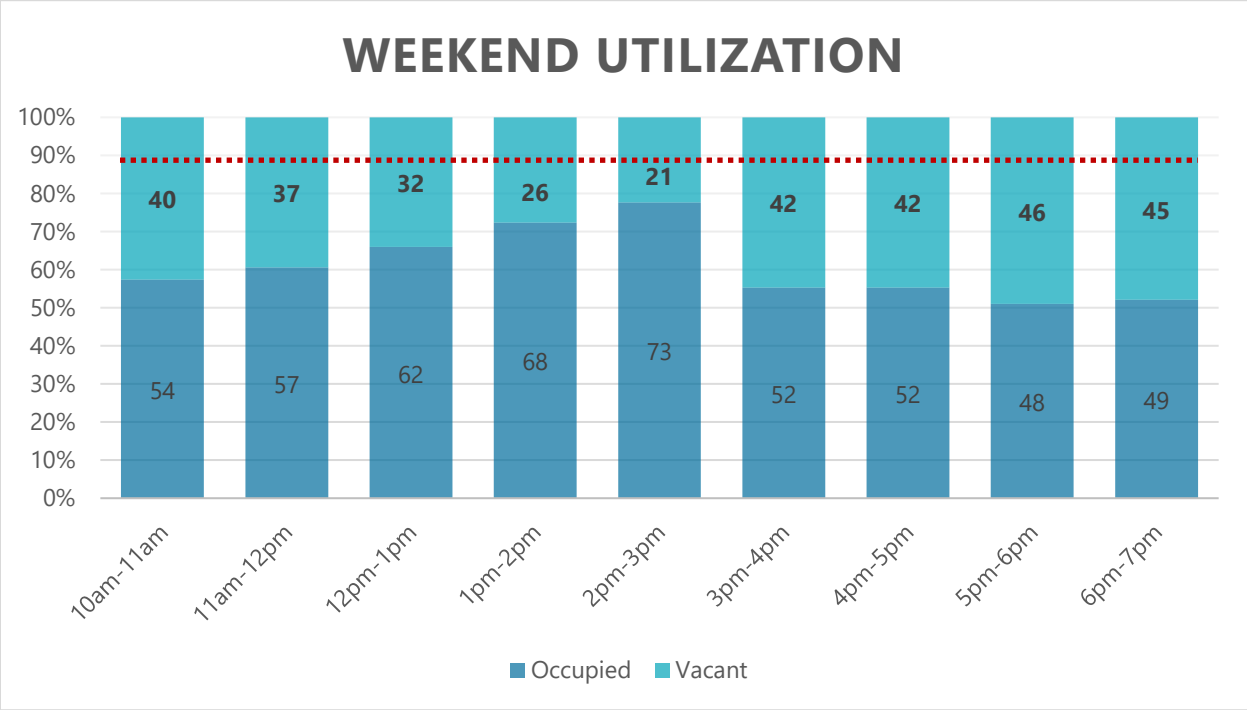
On-street parking spaces are used at a consistently higher utilization rate on Saturdays than off-street parking spaces as shown in Table 10 and Table 11. This is primarily due to the 2-hr restriction not being applicable to on-street spaces on weekends.

Table 10 Off-Street Parking Utilization – Weekend



Note: On-street and off-street parking spaces noted by Town staff as potential high demand spaces were surveyed every hour while the remaining spaces were surveyed every 2-hours

Table 11 On-Street Parking Utilization – Weekend



Note: All on-street spaces were surveyed every hour.

Overall Weekend Utilization: Observed Parking Patterns

The peak period of parking activity in the study area is between 12 p.m. and 2 p.m. with 41% of spaces occupied, when off-street parking is about 39% full and on-street parking at 72% of full occupancy. In the evening after 6 p.m., parking utilization significantly decreased to 27% (off-street) and 52% (on-street).

As previously noted, while these are aggregate numbers over the entire study area, specific lots do experience differing use dynamics. As seen during a typical weekday many of the lots belonging to auto industry businesses utilize parking spaces for the storage of cars in the process of receiving service. Thus, those lots see higher overall parking utilization. Mimicking the weekday utilization trends, overall off-street parking utilization on a typical weekend evening means there are over 3,700 unused off-street spaces after 6:00 p.m. and never less than 3,200 off-street spaces available.

The remainder of the maps for Saturday's parking utilization study can be found in Appendix A: Parking Utilization Maps.

Table 12: Overall Parking Utilization – Saturday

Hour Block	10AM-11AM	11AM-12PM	12PM-1PM	1PM-2PM	2PM-3PM	3PM-4PM	4PM-5PM	5PM-6PM	6PM-7PM
Spaces utilized	1667	809	1912	786	1846	530	1522	389	1418
Percent Full	32%	42%	37%	41%	35%	28%	29%	20%	27%

Table 13 Off-Street Parking Utilization – Saturday

Hour Block	10AM-11AM	11AM-12PM	12PM-1PM	1PM-2PM	2PM-3PM	3PM-4PM	4PM-5PM	5PM-6PM	6PM-7PM
Spaces utilized	1613	752	1850	718	1773	478	1470	341	1369
Percent Full	31%	41%	36%	39%	35%	26%	29%	19%	27%

Table 14 On-Street Parking Utilization – Saturday

Hour Block	10AM-11AM	11AM-12PM	12PM-1PM	1PM-2PM	2PM-3PM	3PM-4PM	4PM-5PM	5PM-6PM	6PM-7PM
Spaces utilized	54	57	62	68	73	52	52	48	49
Percent Full	57%	61%	66%	72%	78%	55%	55%	51%	52%

Figure 9: Parking Utilization – Saturday 10.a.m.

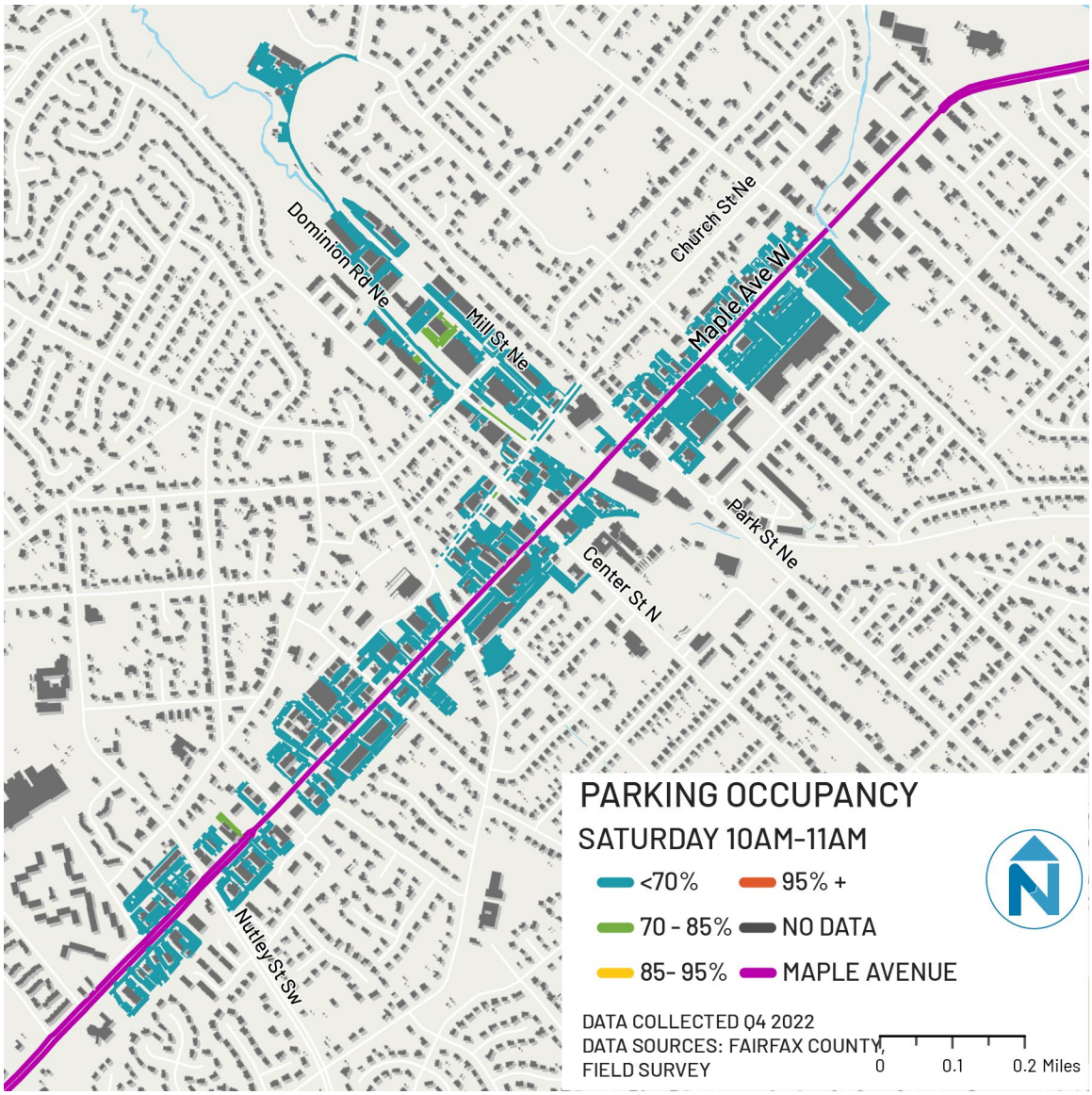


Figure 10: Parking Utilization – Saturday 12.p.m.

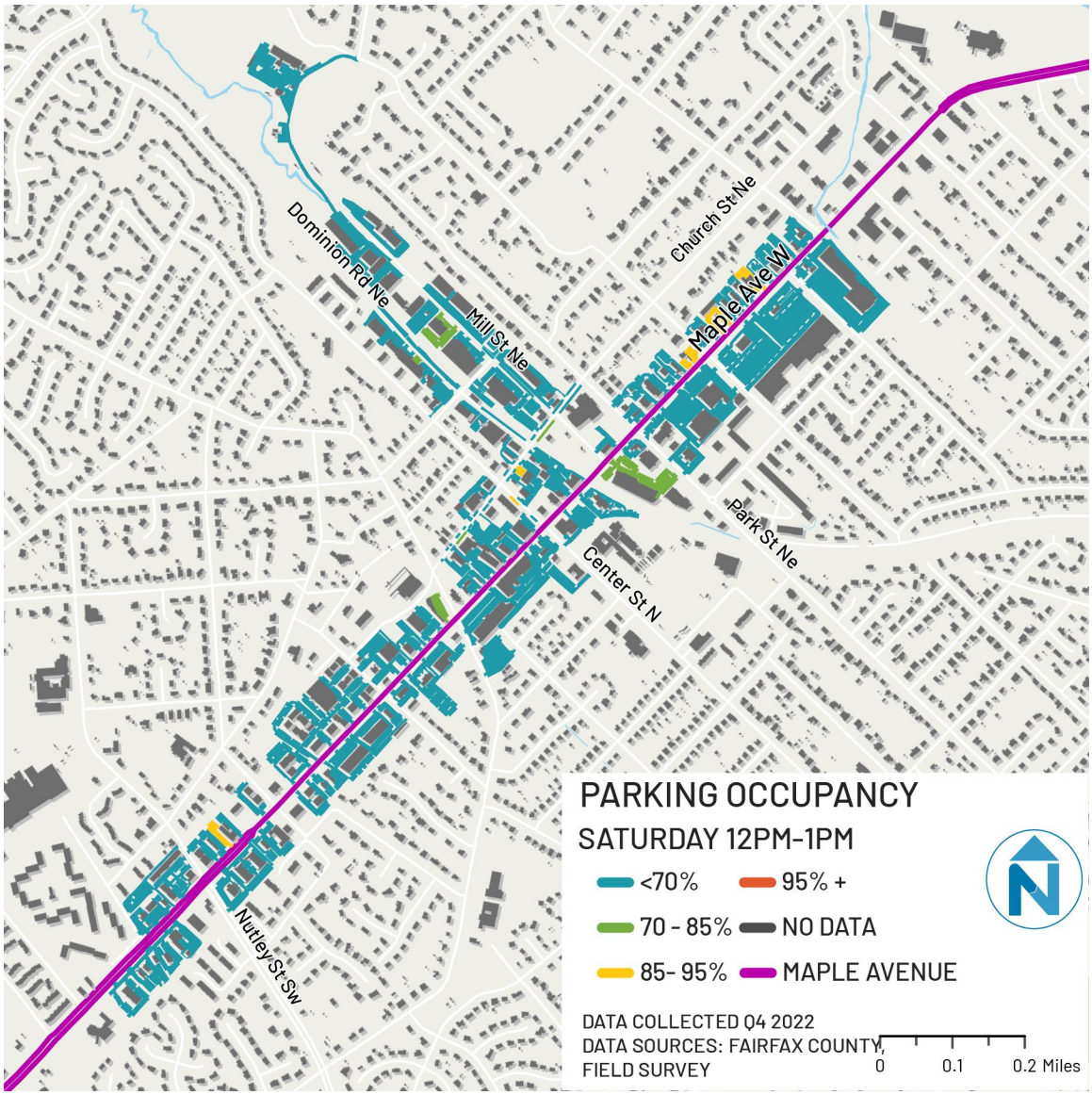
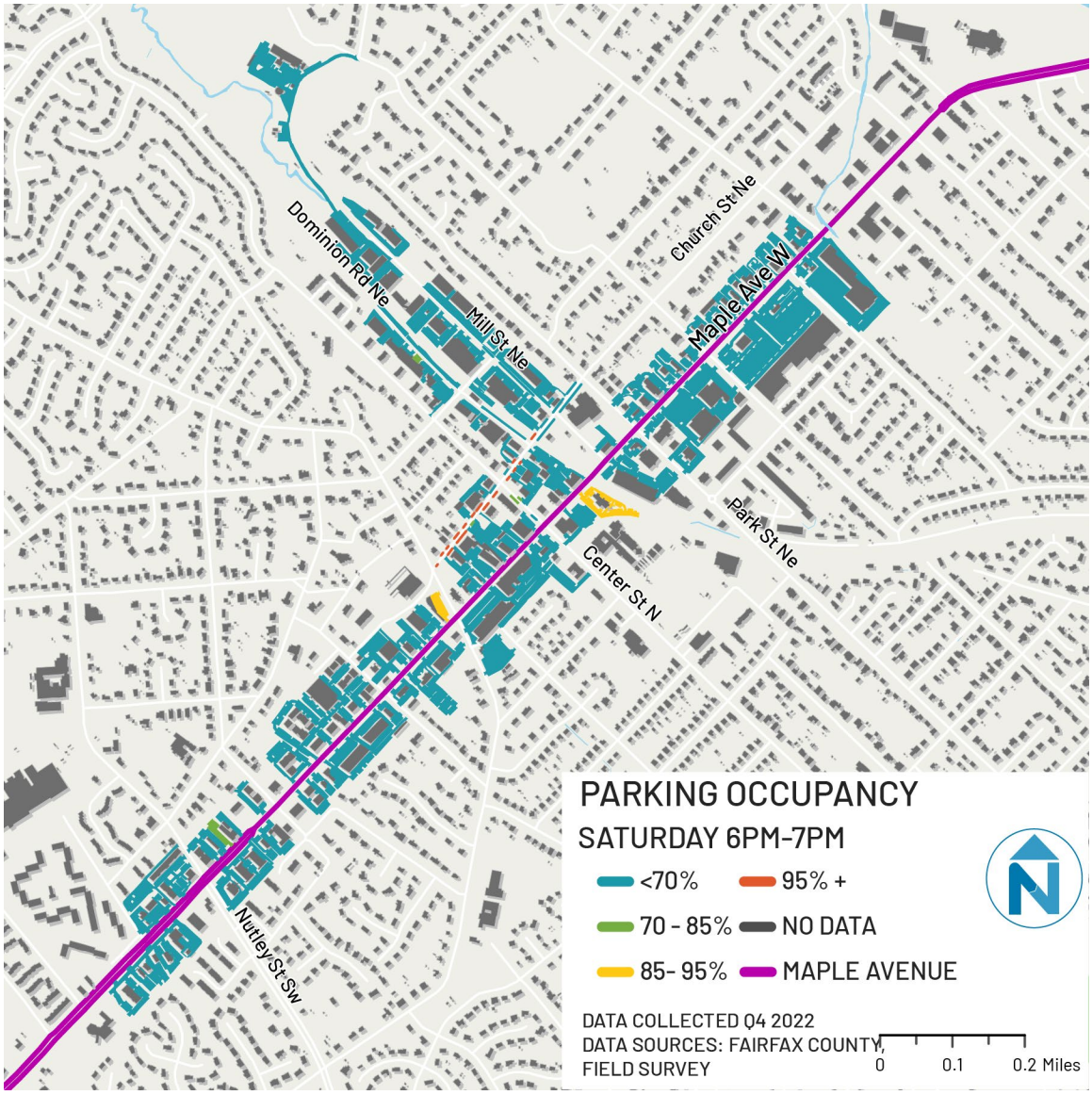


Figure 11: Parking Utilization – Saturday 6.p.m.



3 PUBLIC PARKING SURVEY ANALYSIS

A transportation behavior and preference survey was administered from January 31, 2023 to March 1, 2023 via the Town of Vienna's website. Town staff were responsible for promoting participation across the Town. Seven hundred forty-seven (747) responses were received.[1]

Town of Vienna Affiliation

Currently, the majority of survey respondents come to the commercial corridors in the Town of Vienna to shop and/or eat and drink (Table 15). The survey also asked respondents about their most recent visit to the Town of Vienna's commercial corridors. Respondents most recently came to the study area to shop (61%) or to eat and drink (58%).

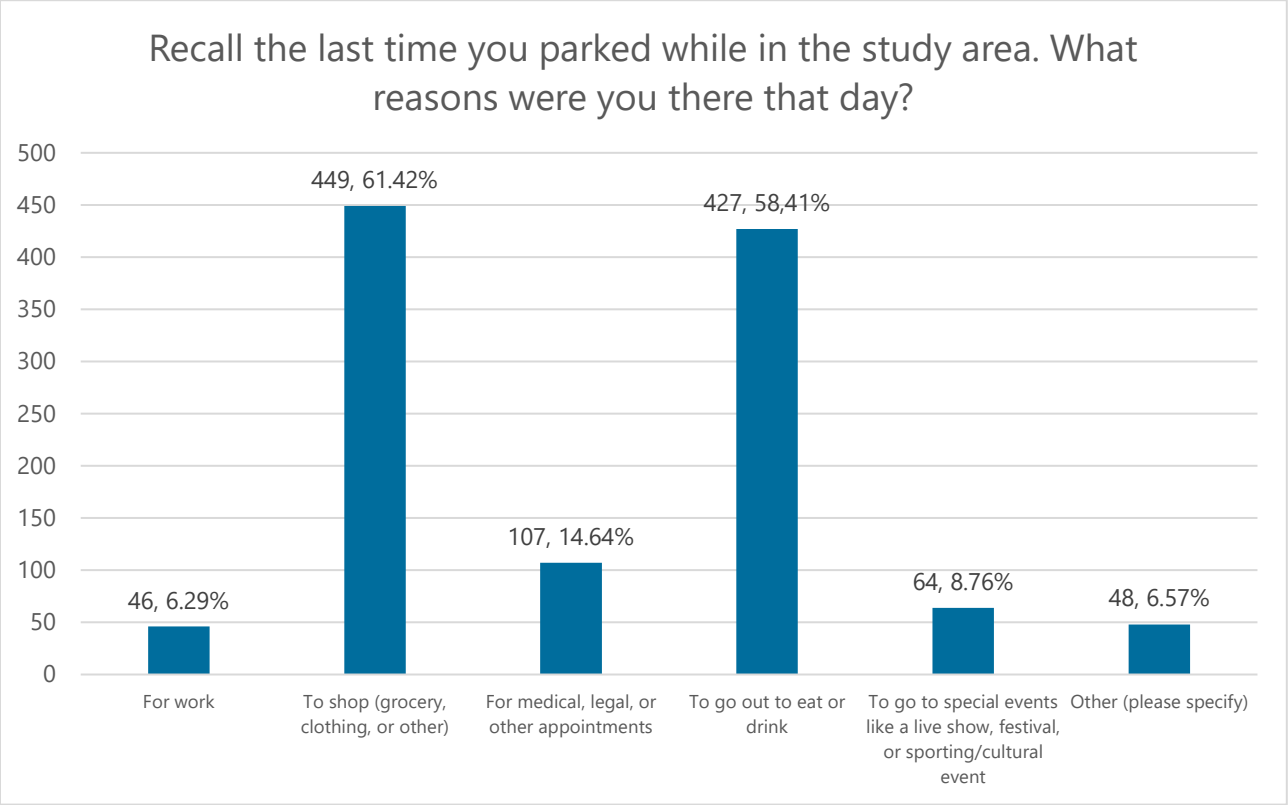
Table 15: Town of Vienna Affiliation

Affiliation	Number of Respondents	Response Percentage
I own a business and/or property	41	5.59%
I work in the study area	36	4.90%
I shop	520	70.84%
I have medical, legal, or other appointments	84	11.44%
I go to eat/drink	621	84.60%
I go to special events like live shows, festivals, or sporting/cultural events	123	16.76%
Other	31	4.22%

N = 734

[1] Many subsequent tables and charts summarizing individual questions list the number of responses for that question alone. Not all survey respondents answered all questions.

Figure 12: Recent Visit to Vienna

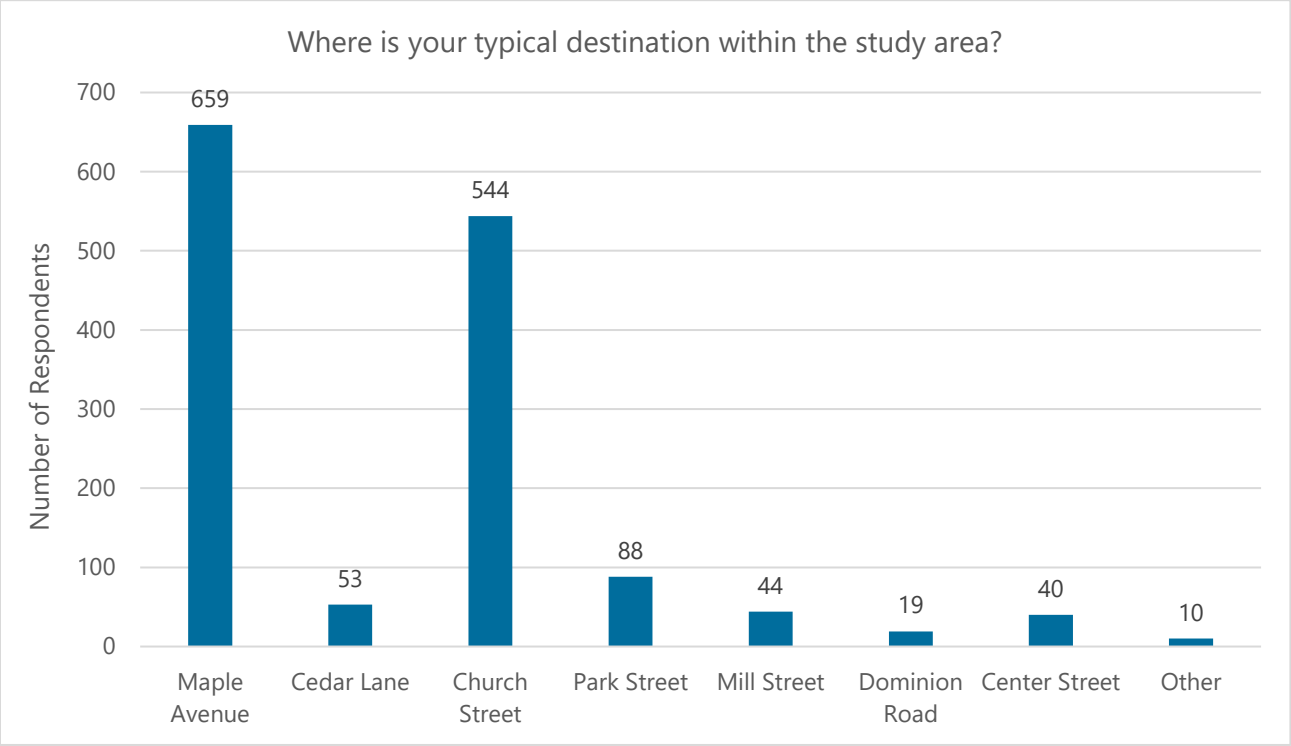


N = 731

Primary Destination

Most survey respondents typically go to Maple Avenue or Church Street when they come to the Town of Vienna. Ninety percent of respondents selected Maple Avenue as one of their primary destinations and 74% selected Church Street as one of their primary destinations.

Figure 13: Typical Destination Within Study Area

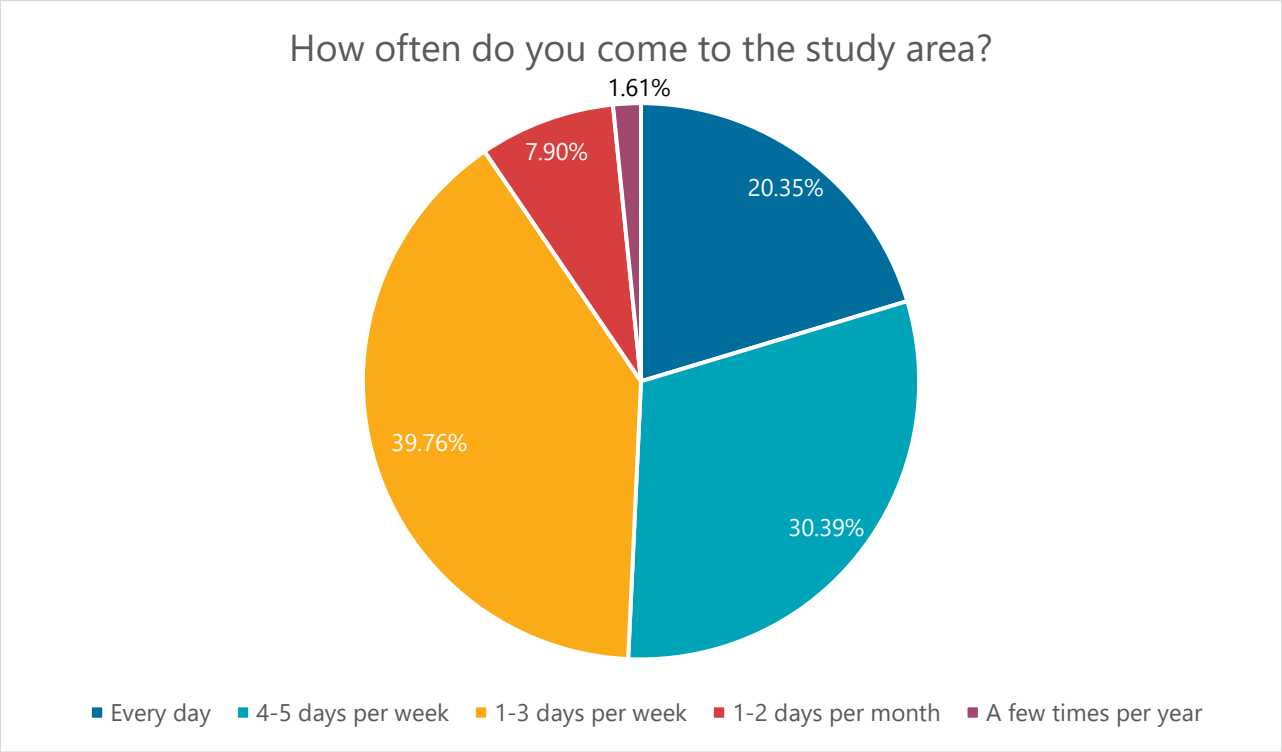


N = 734

Frequency of Visits

A majority of survey respondents visit Vienna's commercial corridors frequently. Ninety percent of survey respondents visit Vienna at least once a week, with 50% of respondents visiting the study area at least four days per week. No respondents never come to the Town of Vienna.

Figure 14: Frequency of Visits to the Study Area

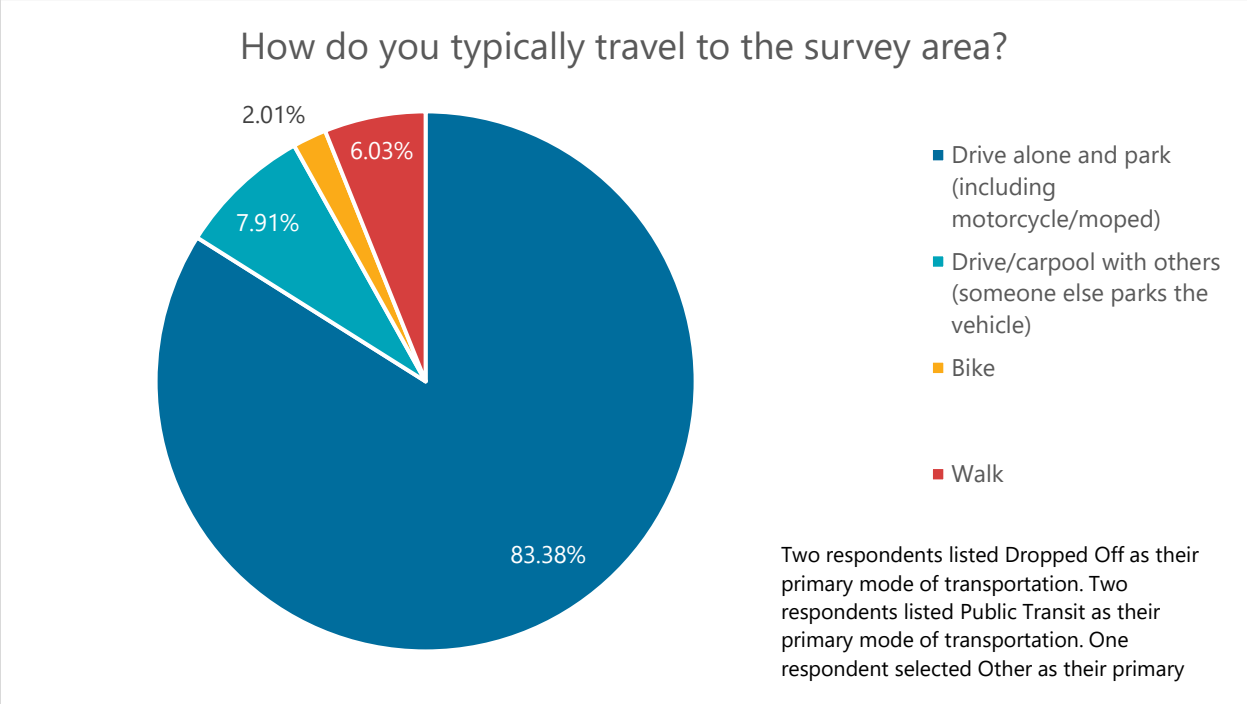


N = 747

Primary Mode of Travel

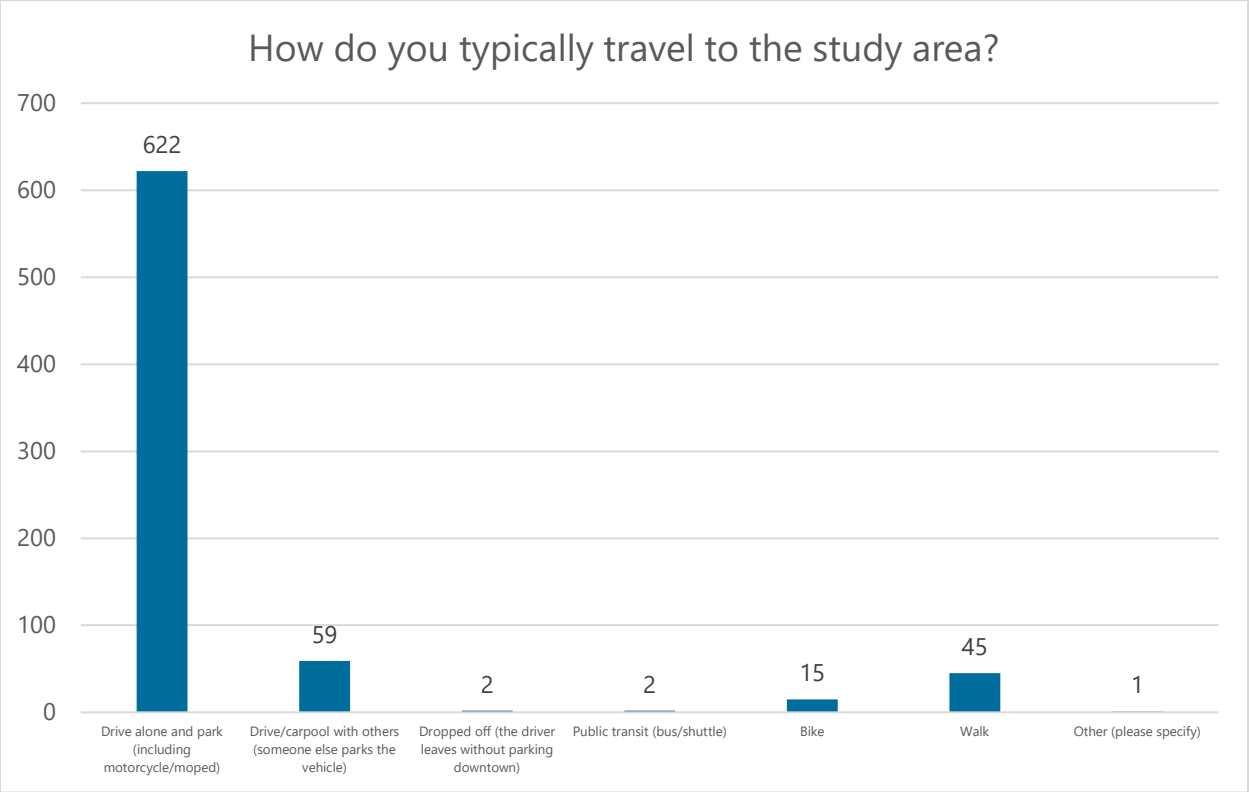
Currently, over 90 percent of survey respondents travel to the study area in a private automobile whether driving alone or driving with others. Those who do not drive to the study area were likely to walk or bike – six percent of respondents walk to the study area and two percent of respondents bike to the study area. Less than one percent of respondents take public transit to the study area.

Figure 15: Survey Respondents Primary Mode of Travel



N = 746

Figure 16: Survey Respondents Primary Mode of Travel

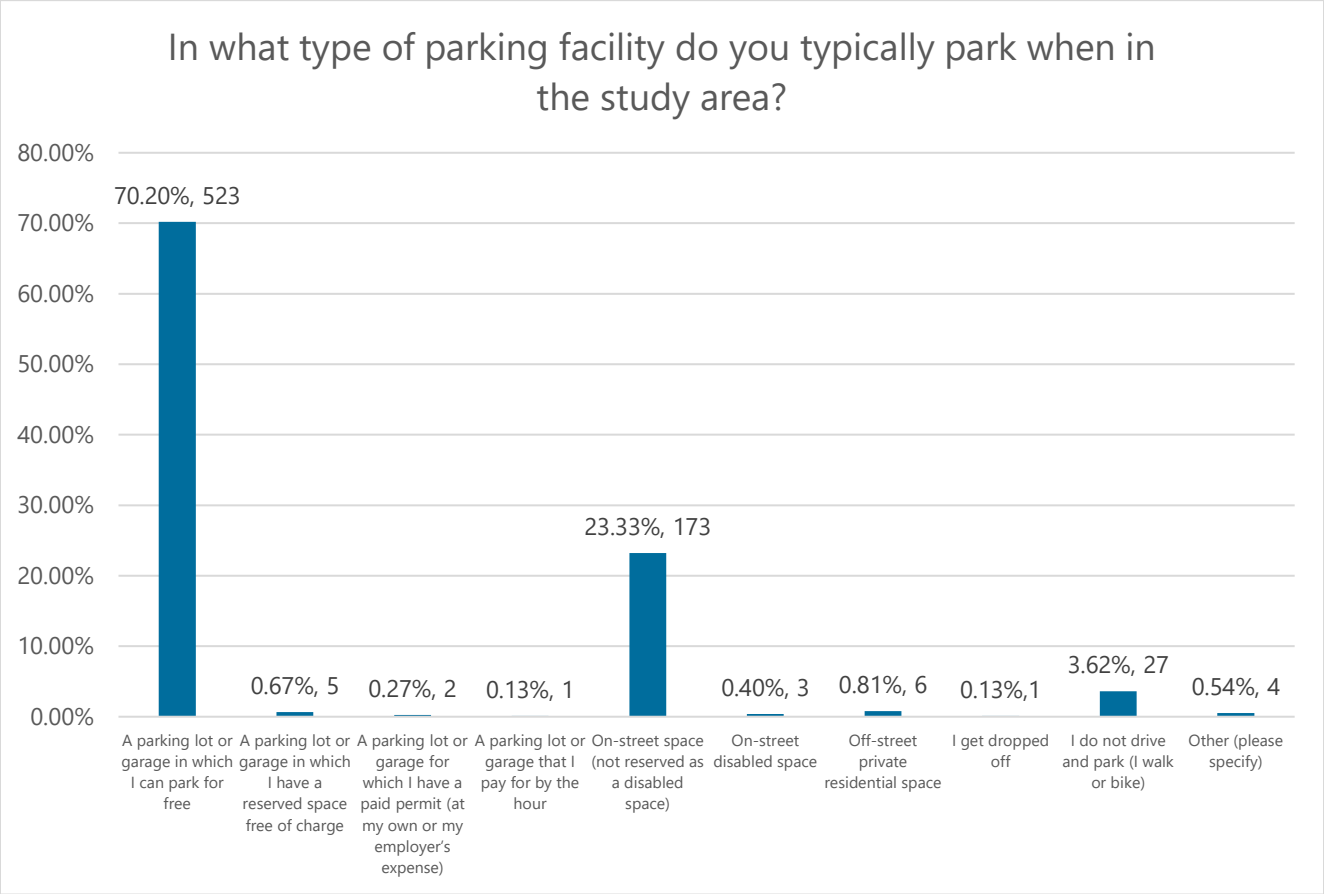


N = 746

Parking Facility

Most parking in Vienna's commercial corridors is in a parking lot or on-street. As such, most survey respondents typically park in a free parking lot or garage in Vienna (70%). If respondents do not park in a free lot, they are likely parking in an on-street parking space (not reserved as a disabled space) (23%). A small percentage (3.6%) of respondents do not drive to and park in the study area because they walk or bike.

Figure 17: Typical Parking Facility

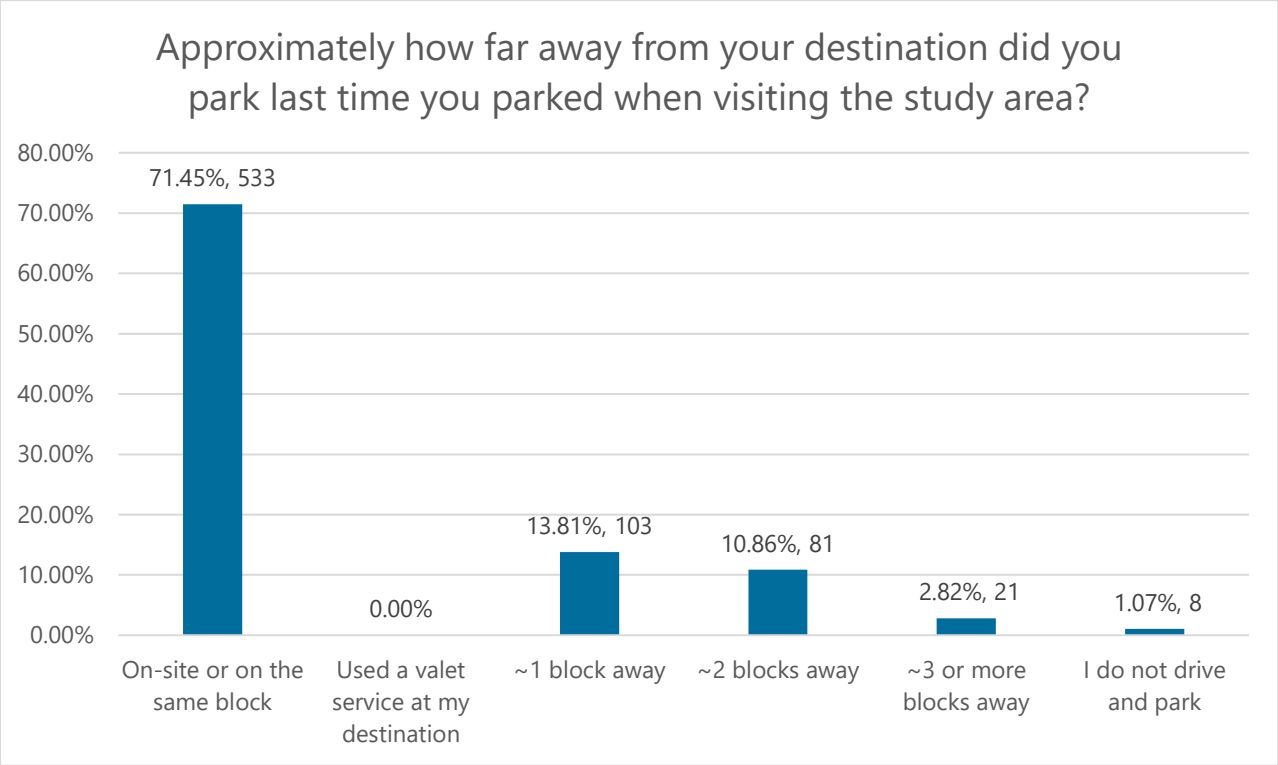


N = 745

Parking Location

The survey attempted to assess where users choose to park. Most survey respondents – 71 percent - parked on-site or on the same block as their destination on their most recent visit to Vienna. This is not surprising, given that many respondents park in a free lot or use on-street parking near their destination. If respondents did not park on site or on the same block, they most likely parked about one block away (13.81%).

Figure 18: Parking Distance from Destination

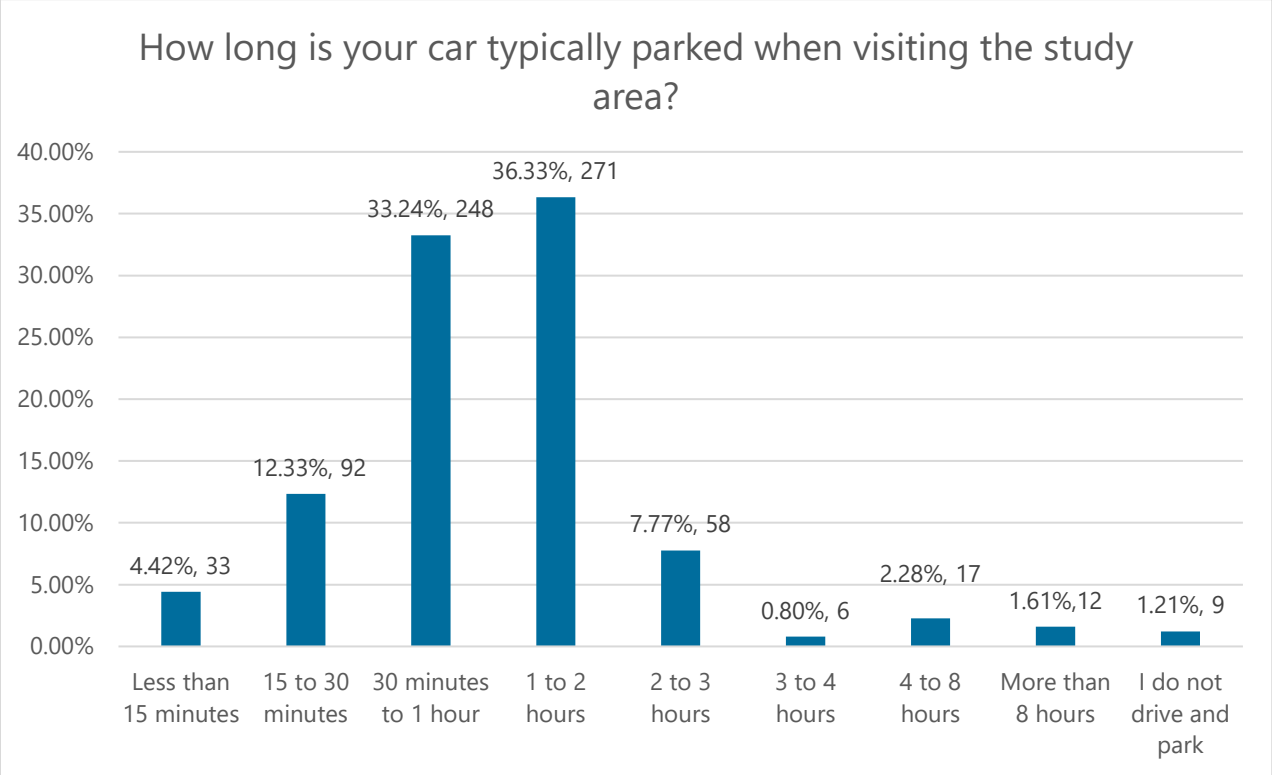


N = 746

Parking Duration

Approximately 36% of respondents park for one to two hours when visiting the study area and 33% park for 30 minutes to one hour. Very few respondents park for more than three hours.

Figure 19: Parking Duration

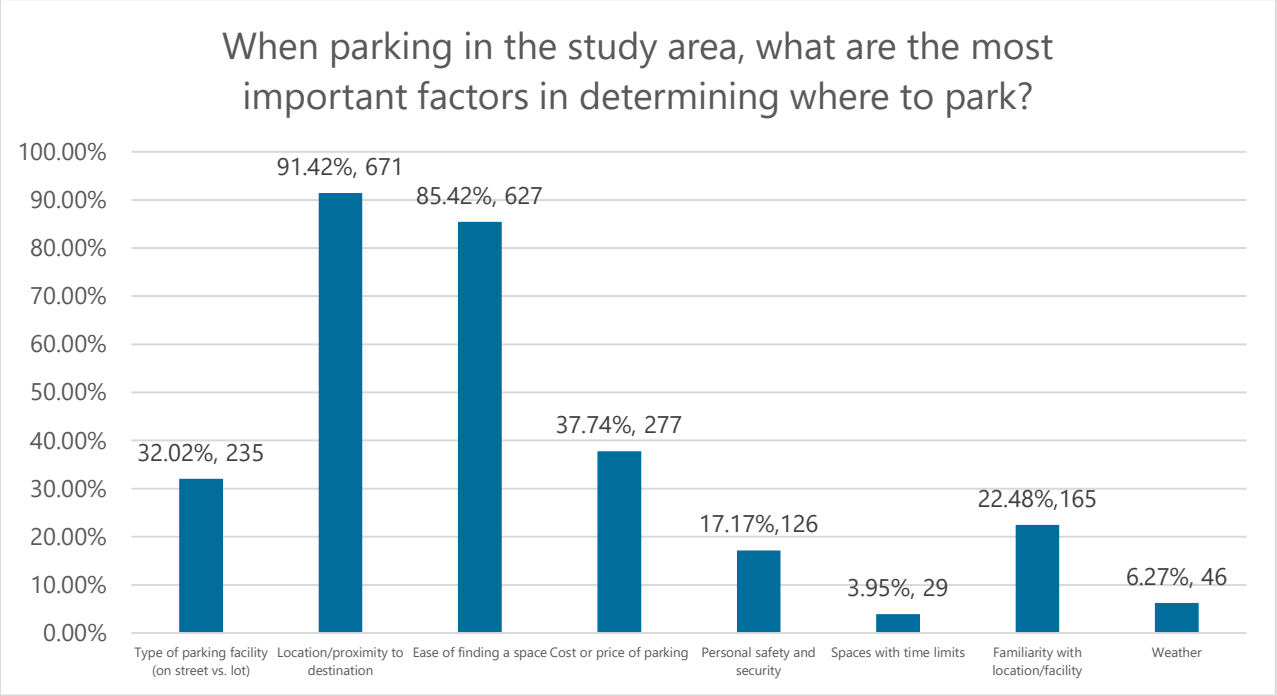


N = 746

Parking Choices

Respondents were asked to select the most important factors when determining where to park. Location and proximity to destination (91%) and ease of finding a space (85%) were selected as the top factors in determining where to park. Other common responses were cost or price of parking (38%), type of parking facility (32%) and familiarity with location and the facility (22%).

Figure 20: Factors in Parking Choice

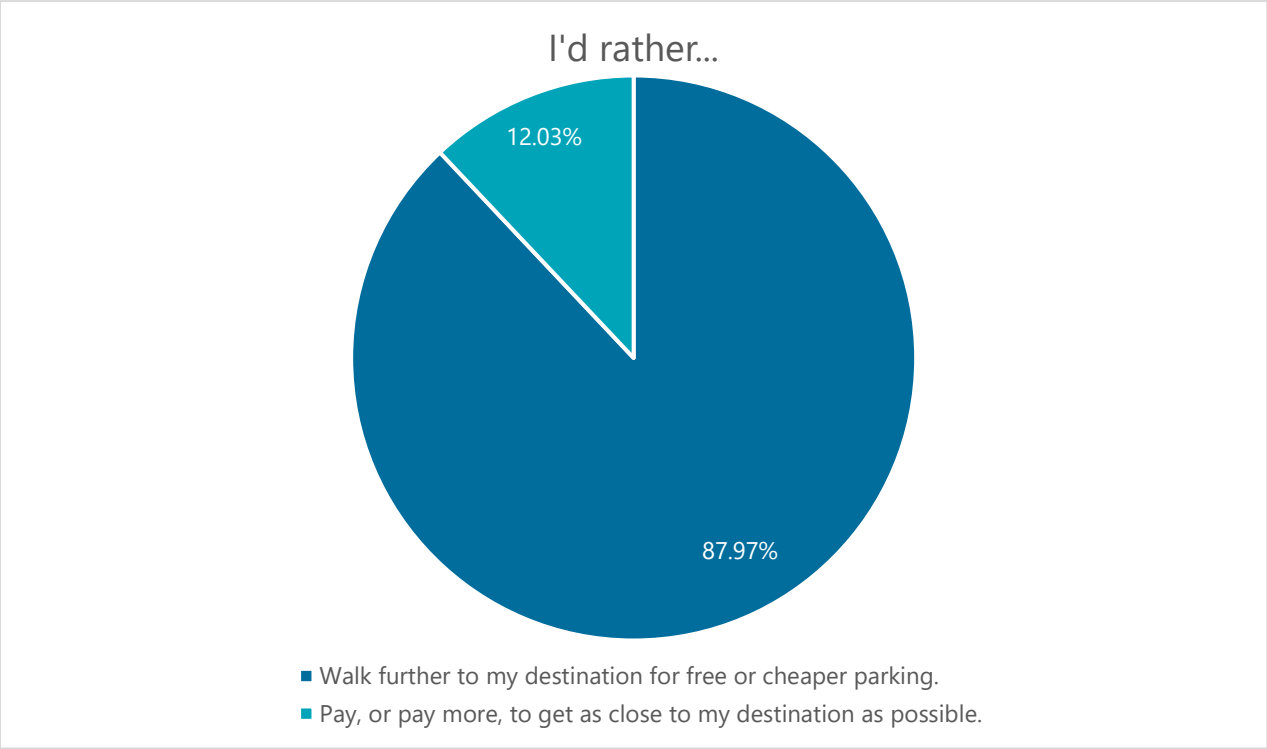


N = 734

Value Preference

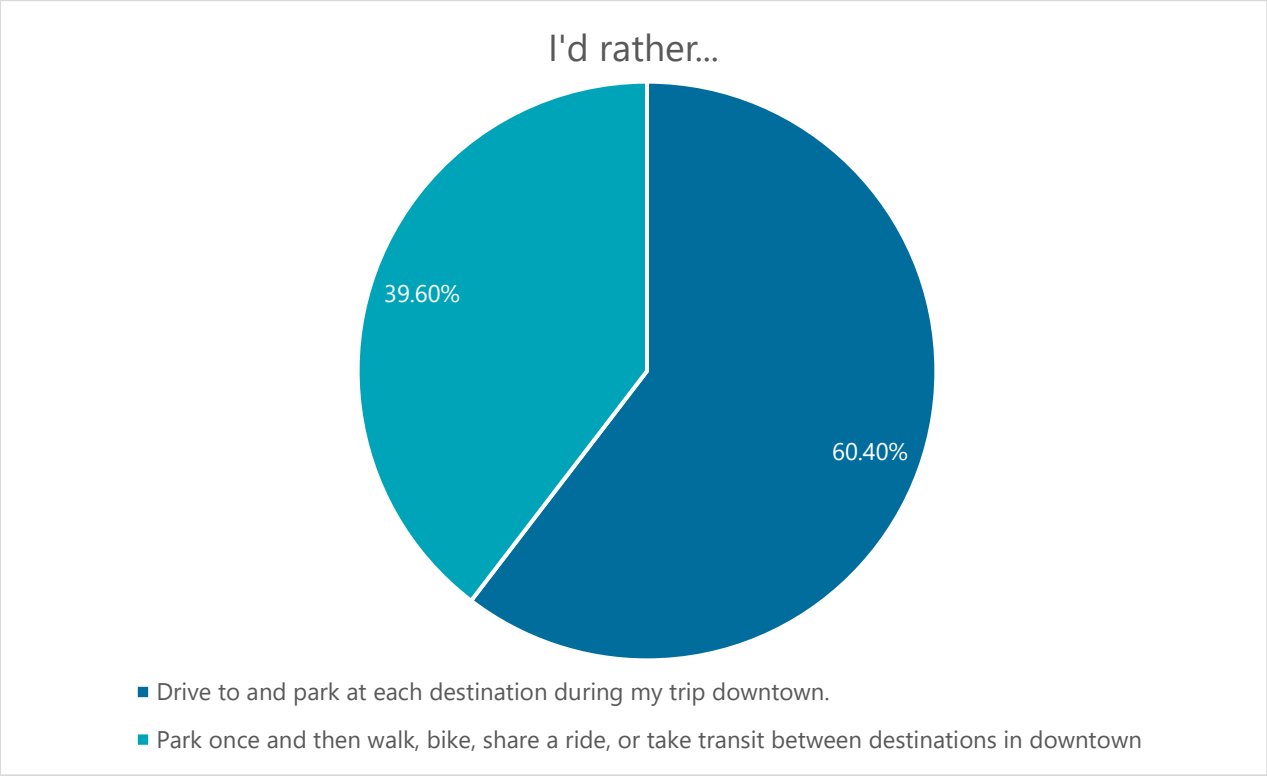
As location, ease of finding, and cost of parking were identified as primary considerations by a majority of respondents, the survey attempted to assess additional value preferences for parking. The majority of respondents would rather walk further to their destination for free or cheaper parking, rather than paying more to be closer to their final destination. Respondents also prefer to drive to and park at each destination, rather than parking once and walking, biking, or taking transit between destinations in Vienna.

Figure 21: Parking Location Value Preference



N = 740

Figure 22: Parking Event Value Preference



N = 745

What Works Well?

Survey respondents were asked to describe what works well about parking and traveling around Vienna's commercial areas. Key themes in the responses included ample free parking, parking location, and walkability.

- Free Parking: Respondents shared that there is ample free parking around Vienna's commercial areas and they are often able to find a free spot near their destination
- Parking Location: Respondents shared they are often able to find a free spot near their destination. Many businesses have parking lots that customers can use, and these typically have spots open. On Church Street, it is easy to park and walk between destinations.
- Walkability: Respondents shared that there is plenty of parking if people are willing to walk a bit to their destination. Respondents also believe Vienna has good pedestrian and bicycle infrastructure, including the W&OD Trail, that they can use rather than driving.

What Does Not Work Well?

Survey respondents provided feedback on what does not work well about parking and traveling around Vienna's commercial areas. The overwhelming responses were a lack of available parking near destinations, residential spillover parking, and lack of shared parking.

- Lack of Available Parking: Some respondents shared that they consistently have trouble finding a parking spot near their destination. Some acknowledged that there was plenty of parking, but it was full.
- Residential Spillover Parking: Some respondents shared that they often cannot find parking because of new residential developments. Respondents said they see people living in residential areas of Vienna parking in commercial areas and walking to their residence.
- Shared Parking: Many respondents shared they would like to park once and walk between destinations, but business owners employ towing companies to prevent this.

How Would You Improve Parking in Vienna's Commercial Areas?

Respondents were asked how parking and getting around in Vienna's commercial areas could be improved. Key themes included additional free parking, a parking garage, shared parking, improved active transportation and public transportation infrastructure, traffic flow on Maple Avenue, increased parking requirements

- Additional Free Parking: Many respondents would like to see additional free parking, especially on Church Street.
- Parking Garage: Respondents were divided over a parking garage. Some shared that a parking garage would greatly improve traveling around Vienna. A central lot would allow respondents to park once and walk to multiple destinations. However, some respondents were strongly opposed to the idea of a parking garage.
- Shared Parking: Respondents shared that they would like to see more options for shared parking, especially in some of the larger shopping center lots. They would like to park in one lot and go to businesses in another lot, but this is not allowed by many businesses today.
- Active Transportation and Public Transit Infrastructure: Respondents would like to see bike parking minimums, crosswalks with high visibility beacons and lights, more crosswalks, and well-maintained sidewalks. This would improve walkability throughout Vienna. Respondents would also like to see a shuttle, trolley, or other public transportation throughout the Town of Vienna. They shared that current buses do not come frequently enough to use them.
- Traffic Flow on Maple Avenue: Respondents shared that the flow of traffic on Maple Avenue makes it very challenging to drive around Vienna. Respondents suggested banning all left turns onto Maple Avenue or aligning stoplight times to improve traffic flow.
- Increased Parking Requirements: Respondents shared they would like to see developments have increased parking requirements. Many developments go into existing spaces and cannot add parking if needed. Residents identified developments like 444 Maple Avenue as developments that should have had increased parking requirements when they went through the development program.

4 INITIAL ASSESSMENT AND NEEDS

Based upon a comprehensive review of the existing conditions, parking utilization analysis, and the user surveys, the initial assessment and needs for the Town of Vienna study area consists of the following:

1. There is currently over 5,000 spaces within the Town of Vienna study area with approximately 99% off-street.
2. Less than 1% of the parking spaces in the study area are publicly owned (the Public Library).
3. The lunchtime period 12 p.m.-2 p.m. on both weekdays and weekends are the periods of highest demand.
    i. 45% of off-street parking is occupied in the weekday lunch period
    ii. 39% of off-street parking is occupied in the weekend lunch period
4. On street parking occupancy is generally higher on weekends than weekdays, peaking at 78% usage between 2 p.m. – 3p.m. on weekends and 65% on weekdays (12 p.m. – 1p.m.)
5. The majority of survey respondents come to the Town's commercial corridors to eat or drink (84.60%)
6. Over 90% of survey respondents travel to the study area in a private automobile whether driving alone or driving with others.
    i. Encouraging **TDM measures** into the site development process is encouraged.
7. Approximately 36% of respondents park for one to two hours when visiting the study area and 33% park for 30 minutes to one hour. Very few respondents park for more than three hours.
    a. A range of **parking regulations** to provide varied time limited spaces is beneficial.
8. Respondents would rather walk further to their destination for free or cheaper parking, rather than paying more to be closer to their final destination.
    a. **Parking pricing** is neither warranted by demand or wanted by clients
9. Respondents also prefer to drive to and park at each destination, rather than parking once and walking, biking, or taking transit between destinations in Vienna.
    a. Use zoning to support a **compact "park-once" development** and environment.
10. Respondents shared that Vienna's free parking, parking locations, and walkability of the Town work well. However, lack of available parking, residential spillover parking, and a lack of shared parking make parking difficult.
    a. Consolidate and streamline the parking **wayfinding, signage and information systems**.
    b. Encourage and support the use of **shared parking agreements** amongst compatible land-uses.

11. Respondents would improve parking by creating additional free parking, a parking garage, improving active transportation and public transit infrastructure and traffic flow on Maple Avenue, and increased parking requirements for new developments.
    a. Review the parking code to **"right-size" parking requirements** for new developments.
    b. Focus on **multimodal improvements** to increase access to underutilized parking.
    c. Streamline and standardize **signage and striping**, including for private lots that are open to the public.