

MEMORANDUM



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TO: Jason Sereno
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FROM: Michael J. Workosky, PTP, TOPS, TSOS
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RE: Tower Oaks Parking Assessment
Rockville, Maryland

SUBJECT: Parking Operations Assessment

Date: December 4, 2023

Introduction

This memorandum summarizes the results of parking assessment for the Tower Oaks residential development that was performed to assess current site operations and address community concerns regarding parking use and occupancy. As shown on Figure 1, the Tower Oaks community is located on the east side of Preserve Parkway, east of Interstate 270, south of Wootton Parkway and west of the Woodmont Country Club, in Rockville, Maryland.

The existing residential development consists of a mix of multifamily, townhouse, and single-family detached residential units. Approximately 147 on-street spaces serve the townhouse units and community center and are the subject of this parking assessment. The townhouses also include garages in each unit to serve residents.

The multifamily units are served by parking garages within the buildings and adjacent surface lots. Parking for the single-family detached units is provided by garage in each unit. Because parking for the multifamily units and single-family detached homes is served by spaces within the building or unit, parking for these uses was not assessed in this study.

For ease of reading, all figures and tables are attached at the end of this document.

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Current Parking Operations

Based on a field reconnaissance of the subject site during a typical weekday in August 2023 prior to the data collection effort, the following observations of current conditions were made:

- Parking for the multifamily residential buildings appears to be accommodated by the parking garage beneath each building and the adjacent surface lots. Sufficient unoccupied spaces in the surface lots were observed that would indicate that spillover to other parts of the site is unlikely.
- Parking for the single-family homes is accommodated by garages within each unit. In addition, residents were observed using their driveways for additional parking, limiting the use of on-street parking.
- Residents of the townhome units were observed using the garage spaces within each unit. The alleys serving these townhouses were generally free of any parked vehicles. Some residents or residential visitors were observed parking in the on-street parking spaces and walking to the townhouse units.
- The on-street parking spaces were not signed for particular uses (e.g. guest, community center, etc.) or restricted.
- The on-street parking spaces near the community center appeared to be mostly occupied and residents were observed driving to the community center. Parking appeared to be available on other streets within the site. It is noted that a portion of the parking spaces were blocked off by construction/utility work, but these activities did not seem to have a significant effect on overall operations of the site.

In order to obtain a better understanding of the operations described above, parking occupancy counts and license plate surveys were conducted over a three-day period. The results of counts and surveys are described in the following sections.

On-Site Parking Occupancy

Parking occupancy counts were collected at Tower Oaks on Sunday, August 27 from 3:00 PM to 12:00 AM, Monday, August 28 and Tuesday, August 29, 2023 from 6:00 AM to 12:00 AM. The counts were delineated into various blocks within the property. These dates were specifically chosen to collect the data since it reflects that last weekend that the pool was open to residents and public schools started on Monday. Fair weather conditions with temperatures ranging from mid-80s to 90 degrees were experienced during this period.

The results are summarized in Table 1 and graphically on Figures 2 through 4. The hourly variation for each of the study days is shown on Charts 1 through 3. The results are summarized below:

Sunday, August 27, 2023. As shown in Table 1, the peak parking accumulation occurred at 7:00 PM when 111 vehicles were parked in the on-street spaces, corresponding to an overall occupancy of 76 percent. As shown on Figure 2, the north and east blocks experienced the highest percentage of occupied spaces at 87 and 88 percent occupancy, respectively. The hourly distribution shown on Chart 1 indicates that the greatest variation occurs within the north block that serves the community center that experiences an increased parking demand at 7:00 PM.

Monday, August 28, 2023. As shown in Table 1, the peak parking accumulation occurred at 6:00 AM and 11:00 PM when 101 vehicles were parked in the on-street spaces, corresponding to an overall occupancy of 69 percent. As shown on Figure 3, the north and east blocks experienced the highest percentage of occupied spaces at 73 and 78 percent occupancy, respectively. The hourly distribution shown on Chart 2 indicates that the greatest variation occurs within the north and south blocks, which experiences higher parking demands during the early morning and late evening periods.

Tuesday, August 29, 2023. As shown in Table 1, the peak parking accumulation occurred at 6 AM 102 vehicles were parked in the on-street spaces, corresponding to an overall occupancy of 69 percent. As shown on Figure 4, the east block experienced the highest percentage of occupied spaces at 83 percent occupancy. The hourly distribution shown on Chart 3 indicates that the greatest variation occurs within the north and east blocks, which experiences higher parking demands during the early morning and late evening periods.

Parking Turnover Analysis

In order to assess the turnover rate of parking throughout the study days, license plate surveys were conducted within the site to identify the number of vehicles parked on-street for greater than six hours. The results of these surveys are summarized below.

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Sunday, August 27, 2023. License plate surveys were conducted at 3:00 PM and 12:00 midnight and the results are shown below:

	3 PM	12 Midnight
Total License Plates Surveyed	164	168
Unique License Plates	74	78
Percent Unique Plates	45%	46%

As shown above, slightly below half of the vehicles observed were parked for only one of the survey periods indicating that over half of vehicles parked in the early afternoon remained overnight.

Monday, August 28, 2023. License plate surveys were conducted at 6:00 AM, 12:00 Noon, and 12:00 Midnight and the results are shown below:

	6 AM	12 Noon	12 Midnight
Total License Plates Surveyed	162	126	168
Unique License Plates	26	35	32
Percent Unique Plates	16%	28%	19%

As shown above, the percentage of vehicles parked for only one survey period ranged from 16 percent to 28 percent. The highest proportion of unique vehicles occurred during the midday period. These results indicate that a significant proportion of on-street parking may be occupied by residents parked throughout the day or during both the early morning and late-night hours.

Tuesday, August 29, 2023. License plate surveys were conducted at 6:00 AM, 12:00 Noon, and 12:00 Midnight and the results are shown below:

	6 AM	12 Noon	12 Midnight
Total License Plates Surveyed	167	132	176
Unique License Plates	14	44	32
Percent Unique Plates	8%	33%	18%

As shown above, the percentage of vehicles parked for only one survey period ranged from eight (8) percent to 33 percent. The highest proportion of unique vehicles occurred during the midday period. These results indicate that a significant proportion of on-street parking may be occupied by residents parked throughout the day or during both the early morning and late-night hours.

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Preserve Parkway Parking Operations

In addition to the on-site parking data collection described above, parking occupancy counts were conducted along Preserve Parkway to assess the on-street parking operations of the roadway. The counts were conducted for both the northbound and southbound approaches and divided into the following roadway segments:

- North Segment – Between Wootton Parkway and Royal Fern Place adjacent to Clyde's and the 1 Preserve Parkway office building. A parking supply of 32 spaces (12 northbound and 20 southbound) is estimated to be available (individual spaces are not delineated).
- Middle Segment – Between Royal Fern Place and Bellflower Lane adjacent to Clyde's and the multifamily residential buildings. A parking supply of 27 spaces (13 northbound and 14 southbound) is estimated to be available.
- South Segment – South of Bellflower Lane adjacent to the townhouse units. A parking supply of 24 spaces (12 northbound and 12 southbound) is estimated to be available.

On-street parking is unrestricted in these areas during both weekdays and weekends. The on-street parking occupancy data is shown on Charts 4 through 6 and summarized below.

Sunday, August 27, 2023. As shown on Chart 4, parking along northbound Preserve Parkway only occurred within the south segment adjacent to the townhomes. The observed parking along this segment (8 to 10 parked vehicles) was generally consistent throughout this period, indicating that these vehicles may be associated with the residential uses.

Along southbound Preserve Parkway, on-street parking was observed along each of the three segments. The north and middle segments experience peak parking occupancies at 4:00 PM (13 and 8 parked vehicles) with parking occupancy decreasing in the late evening, indicating that the majority of parking demand may be associated with the Clyde's restaurant. The south segment experienced generally stable parking demand (7 to 10 parked vehicles) throughout the period, indicating that these vehicles may be associated with the residential uses.

Based on the data described above, a maximum of 20 residential vehicles were observed parked on Preserve Parkway at 8 PM.

Monday, August 28, 2023. As shown on Chart 5, parking along northbound Preserve Parkway generally only occurred within the south segment adjacent to the townhomes. While there were brief decreases in parking demand in the morning and early afternoon periods, parking occupancy along this segment was consistent (10 to 11 parked vehicles) during most other times of the day, indicating that these vehicles may be associated with the residential uses.

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Along southbound Preserve Parkway, minimal on-street parking (3 vehicles or fewer) was observed along north segment. Parking along the middle generally occurred between 10 AM and 9:00 PM with nine (9) to 11 parked vehicles, indicating that the majority of parking demand may be associated with the Clyde's restaurant. The south segment experienced peak parking occupancy (up to 8 vehicles) during the early morning and late evening periods, indicating that these vehicles may be associated with the residential uses.

Based on the data described above, a maximum of 19 residential vehicles were observed parked on Preserved Parkway at 9 AM.

Tuesday, August 29, 2023. As shown on Chart 6, parking along northbound Preserve Parkway only occurred within the south segment adjacent to the townhomes. While there were brief decreases in parking demand in the late morning and early afternoon periods, parking occupancy along this segment was consistent (9 to 12 parked vehicles) during most other times of the day, indicating that these vehicles may be associated with the residential uses.

Along southbound Preserve Parkway, minimal on-street parking (2 vehicles or fewer) was observed along north segment. Parking along the middle generally occurred between 10:00 AM and 9:00 PM with a peak of 13 parked vehicles, indicating that the majority of parking demand may be associated with the Clyde's restaurant. The south segment experienced peak parking occupancy (up to 9 vehicles) during the early morning and late evening periods, indicating that these vehicles may be associated with the residential uses.

Based on the data described above, a maximum of 20 residential vehicles were observed parked on Preserved Parkway between 7 AM to 9 AM.

Parking Analysis Summary

The results of the parking operations assessment are summarized as follows:

1. The overall results indicate that a maximum of 76 percent of the available on-street parking spaces (111 occupied spaces/147 space supply) within the property were occupied at 7:00 PM on Sunday, August 27, 2023. The maximum parking occupancy reached 69 percent on both Monday and Tuesday, August 28th and 29th, respectively. This indicates that 36 to 46 spaces are available during the peak hours.
2. Parking adjacent to the community center in the north and east blocks realized a maximum parking occupancy of 87 to 88 percent (74 of 85 spaces occupied) at 7:00 PM on Sunday. Given the demand for parking in this area, it may be beneficial to designate a

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portion of on-street parking spaces for community center patrons. These restrictions could be designed for times when the center is in operation to better manage parking.

3. The results of the turnover surveys showed that approximately one-half of the spaces turned over on Sunday within the site, indicating that half of the parked vehicles remained overnight. The weekday results showed a lower turnover of approximately 28 to 33 percent, indicating that the majority of parked vehicles remained parked throughout the day and overnight. The portion of turnover parking is likely related to visitors.
4. Consider implementing time restrictions on a portion of on-street parking spaces to limit the amount of time vehicles can be parked. License plate survey data indicates that a majority of parked vehicles were observed during multiple periods of each of the survey days. Time restrictions would increase turnover and create additional visitor spaces. In addition, residents should be encouraged to utilize their garage parking spaces provided within each residential unit. This would ensure that on-street parking spaces are available to visitors.
5. It appears that some residents and/or visitors are parking along Preserve Parkway. The maximum occupancy occurring during the early morning and late evening hours was approximately 20 vehicles. Given the surplus of parking within the site, these vehicles could be accommodated but would not likely use available spaces since they are not in proximity to their destination.

Questions regarding this document should be directed to Wells + Associates.

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Table 1
Tower Oaks Parking Assessment
On-Street Parking Occupancy ^{(1) (2)}

	Sunday August 27, 2023		Monday August 28, 2023		Tuesday August 29, 2023	
Time	Spaces Occupied	Percent Occupied	Spaces Occupied	Percent Occupied	Spaces Occupied	Percent Occupied
6:00 AM	-	-	101	69%	102	69%
7:00 AM	-	-	94	64%	94	64%
8:00 AM	-	-	90	61%	88	60%
9:00 AM	-	-	86	59%	80	54%
10:00 AM	-	-	77	52%	75	51%
11:00 AM	-	-	78	53%	75	51%
12:00 PM	-	-	72	49%	67	46%
1:00 PM	-	-	82	56%	72	49%
2:00 PM	-	-	78	53%	80	54%
3:00 PM	83	56%	71	48%	79	54%
4:00 PM	91	62%	70	48%	83	56%
5:00 PM	92	63%	82	56%	91	62%
6:00 PM	102	69%	77	52%	82	56%
7:00 PM	111	76%	90	61%	84	57%
8:00 PM	101	69%	89	61%	78	53%
9:00 PM	96	65%	95	65%	82	56%
10:00 PM	102	69%	99	67%	90	61%
11:00 PM	97	66%	101	69%	96	65%
12:00 AM	102	69%	96	65%	98	67%
Total On-street Spaces Provided:			147			

(1) Based on counts collected by Wells + Associates, Inc.

(2) Excludes vehicles parked on Preserve Parkway

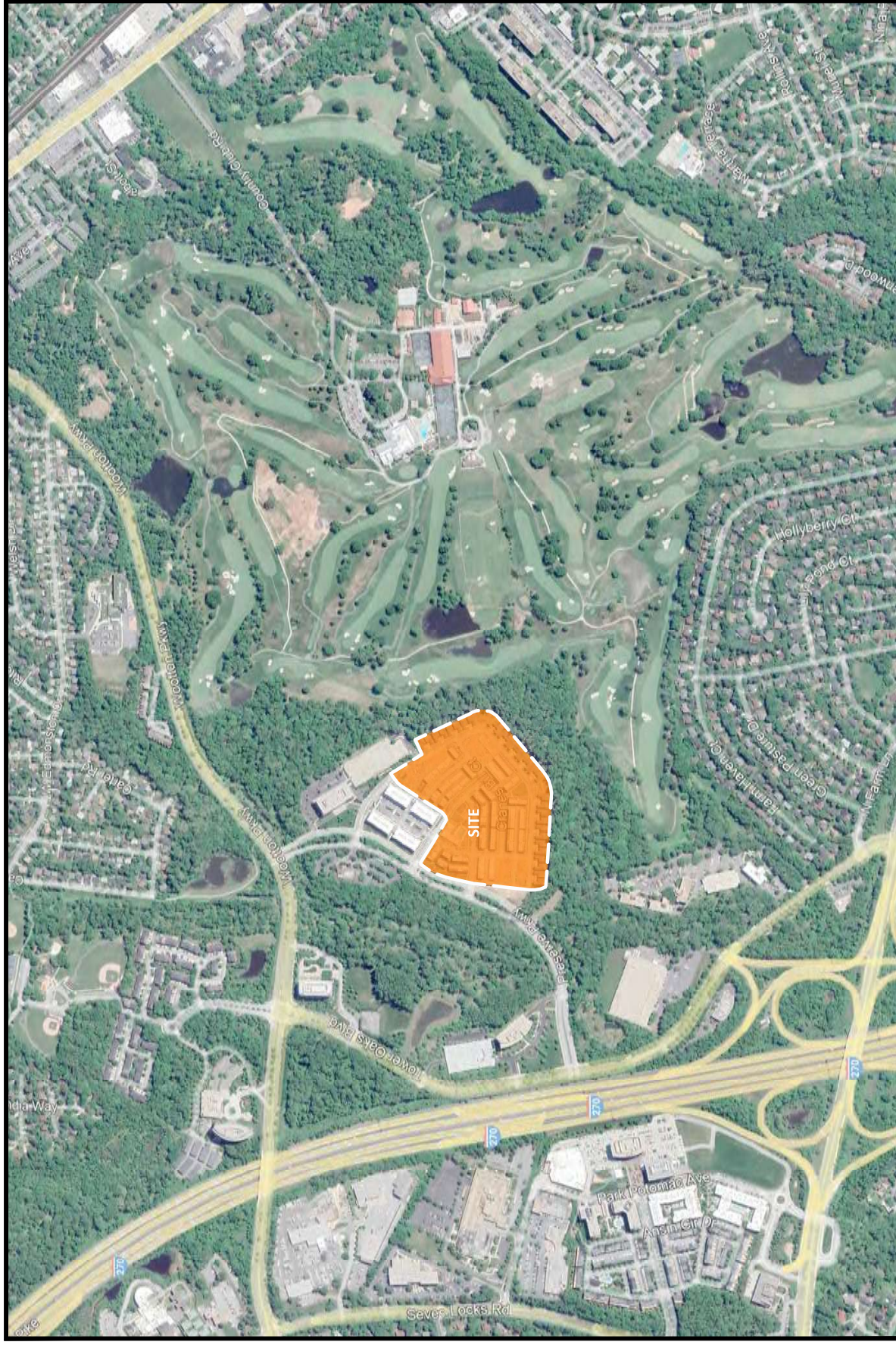


Figure 1
Site Location

 NORTH
Tower Oaks Parking Study,
City of Rockville, Maryland

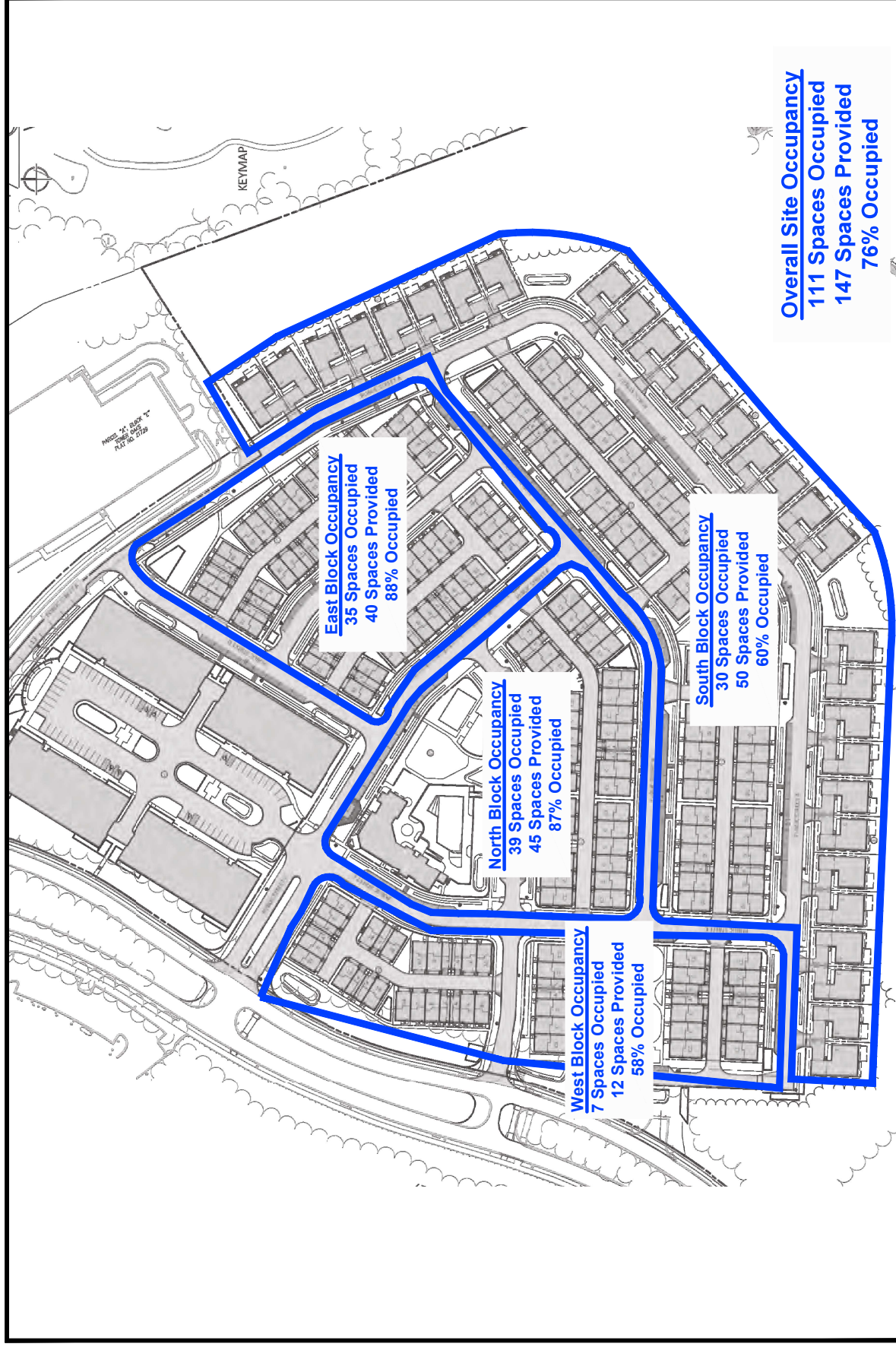


Figure 2

Sunday Peak Hour On-Street Parking Occupancy
August 27th, 2023 at 7 PM



NORTH

Tower Oaks Parking Study
City of Rockville, Maryland

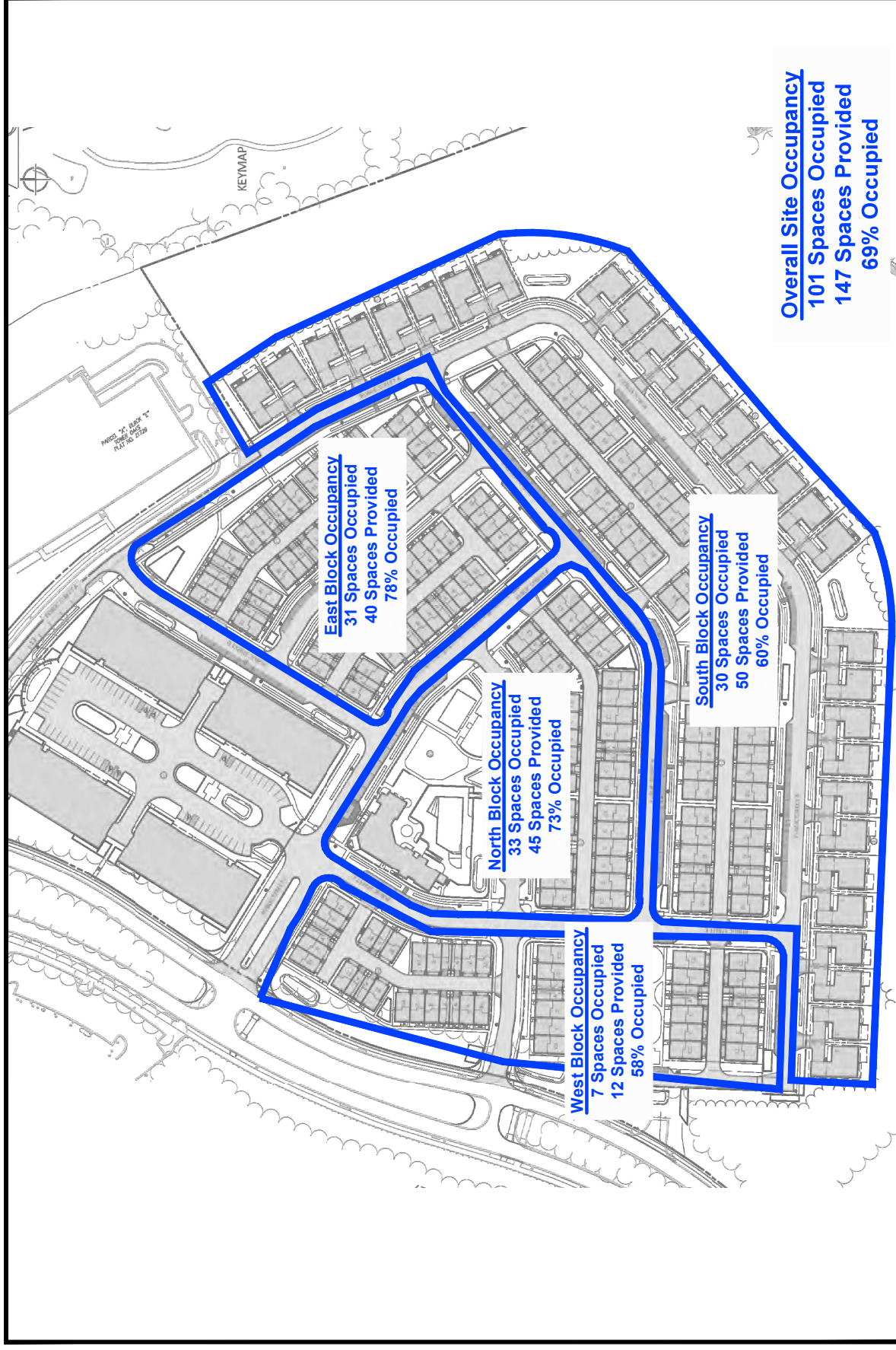


Figure 3

Monday Peak Hour Parking Occupancy
August 28th, 2023 at 11 PM



NORTH

Tower Oaks Parking Study
City of Rockville, Maryland

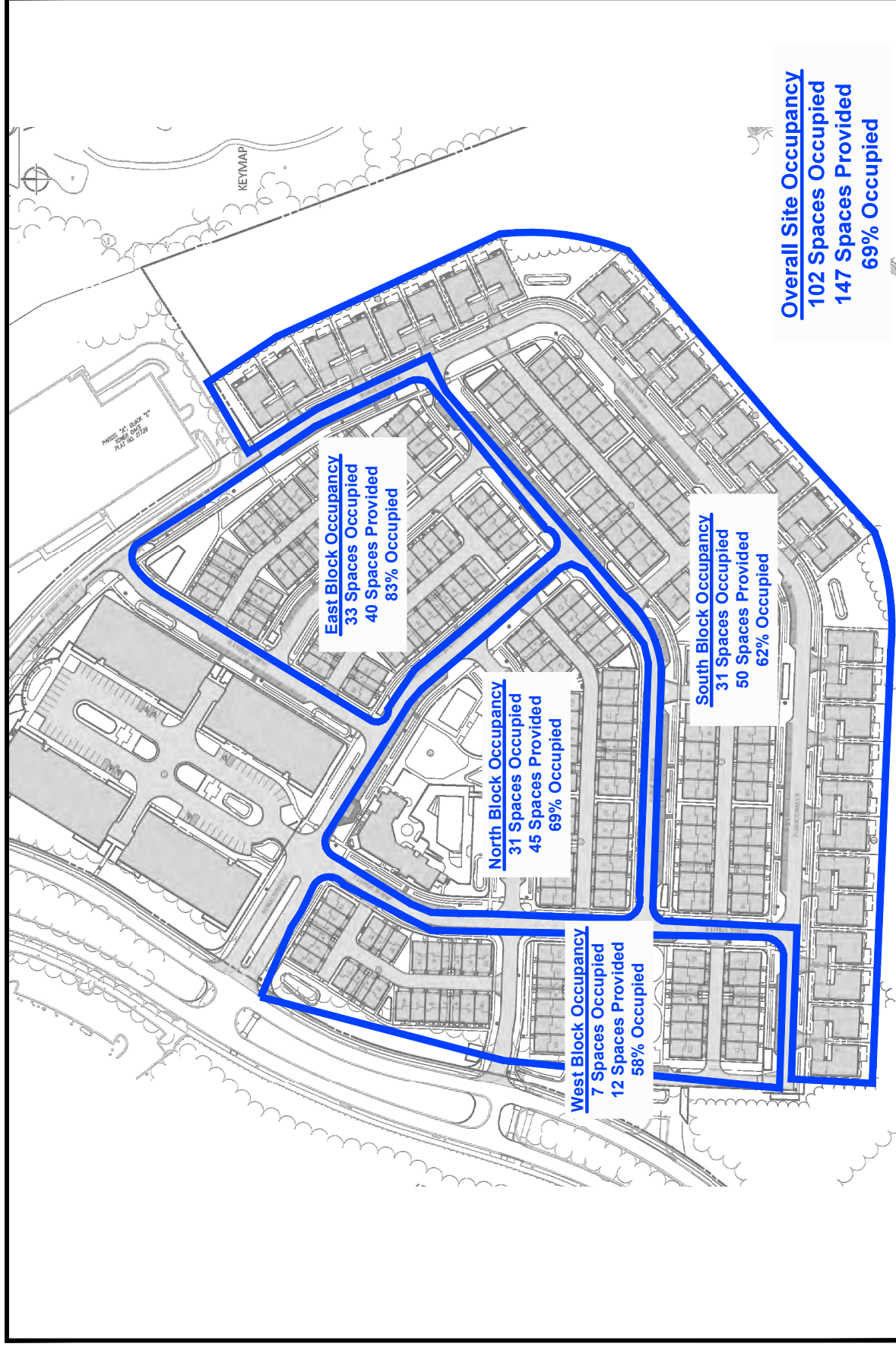


Figure 4

Tuesday Peak Hour On-Street Parking Occupancy
August 29th, 2023 at 6 AM



NORTH

Tower Oaks Parking Study
City of Rockville, Maryland

Chart 1 - On-Street Parking Occupancy
(Sunday, August 27, 2023)

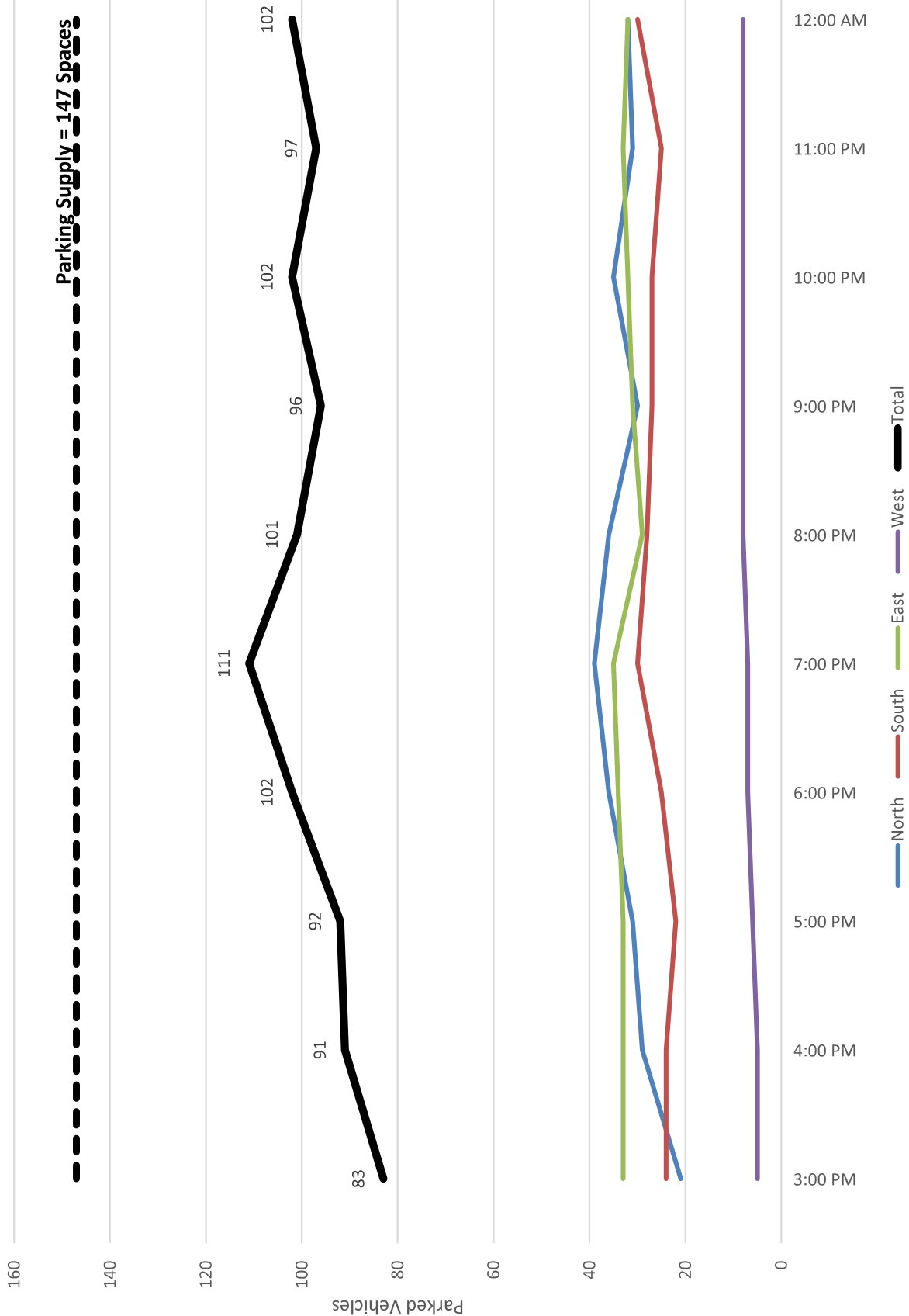


Chart 2 - On-Street Parking Occupancy
(Monday, August 28, 2023)

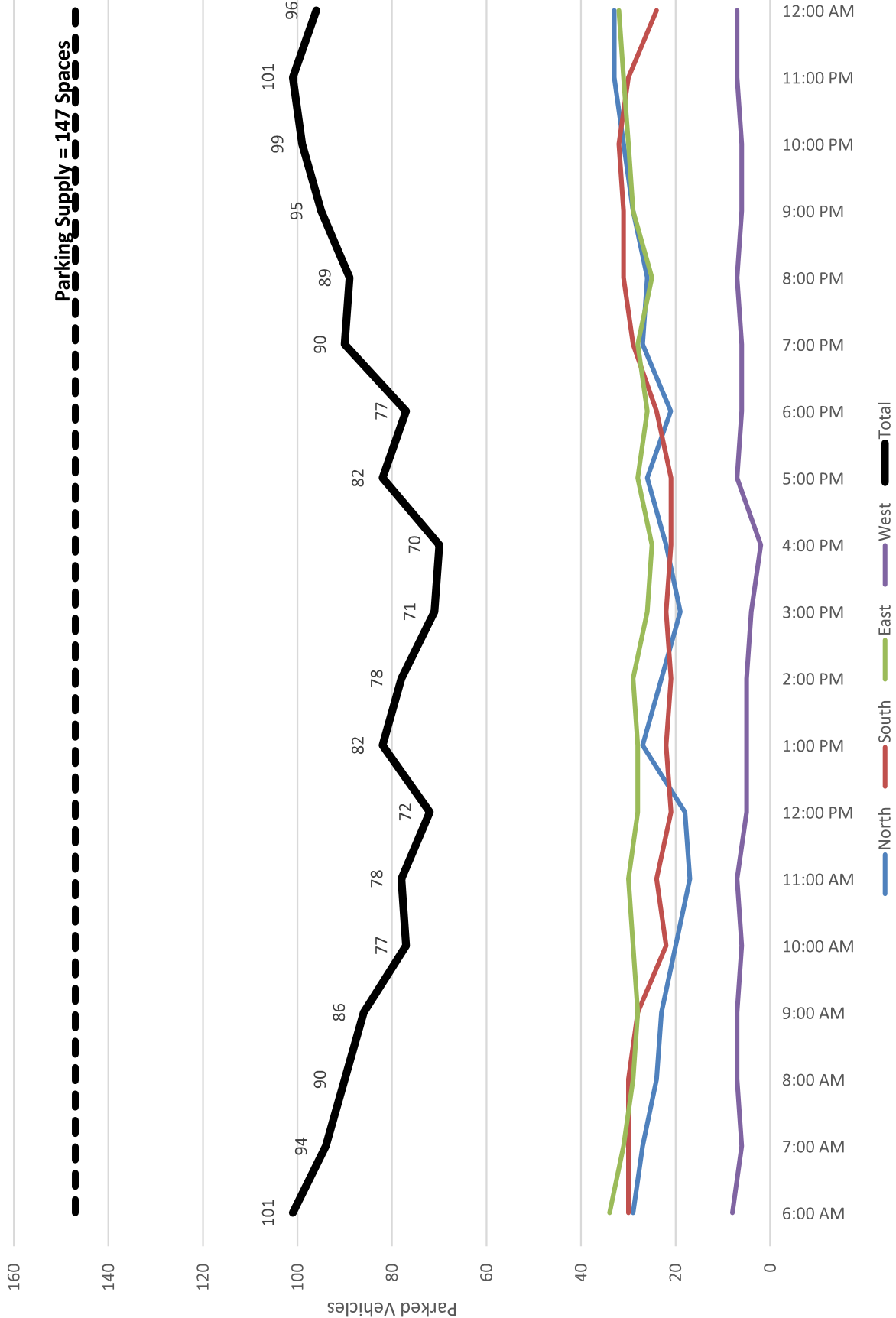


Chart 3 - On-Street Parking Occupancy
(Tuesday, August 29, 2023)

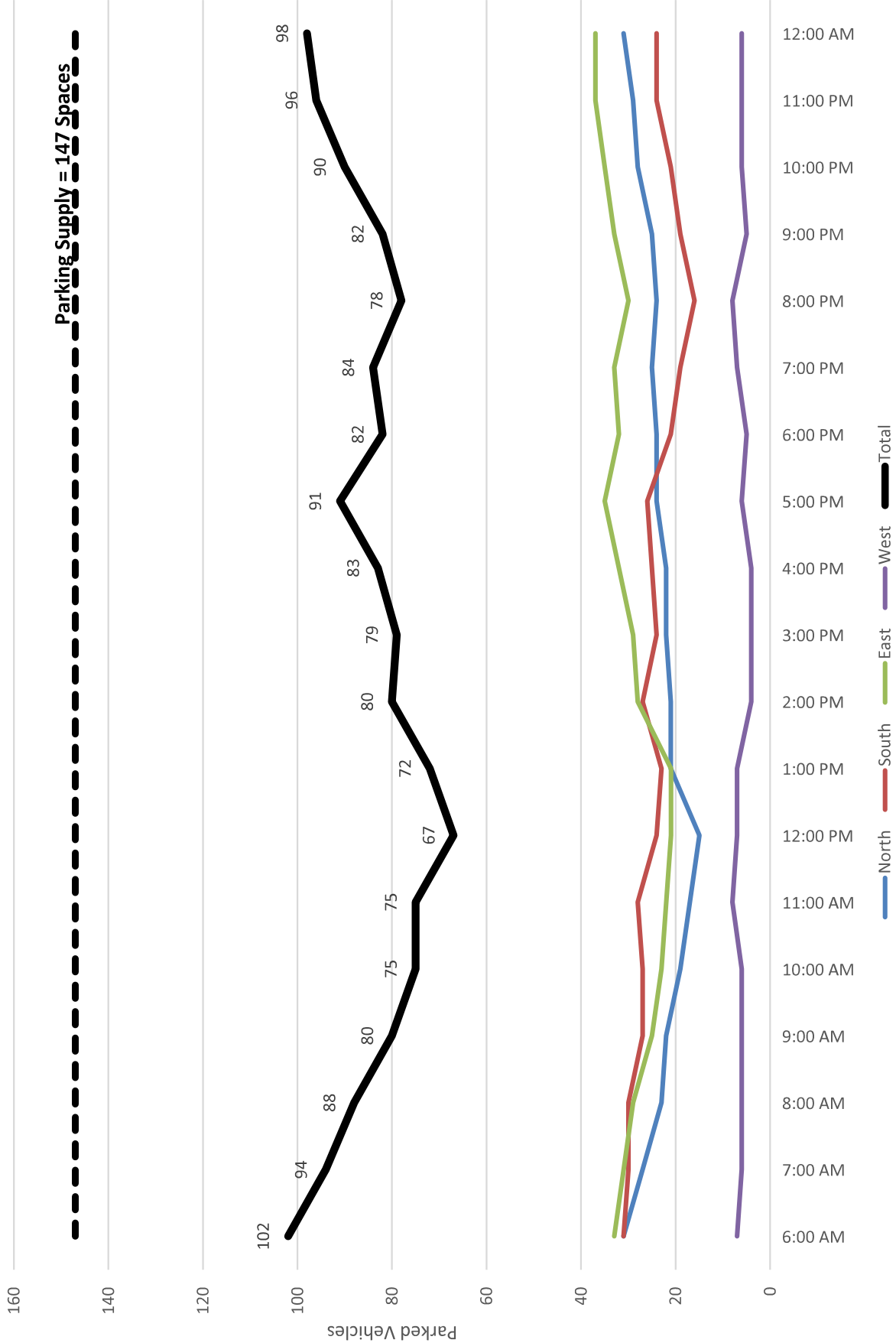


Chart 4 - Preserve Parkway On-Street Parking Occupancy
(Sunday, August 27, 2023)

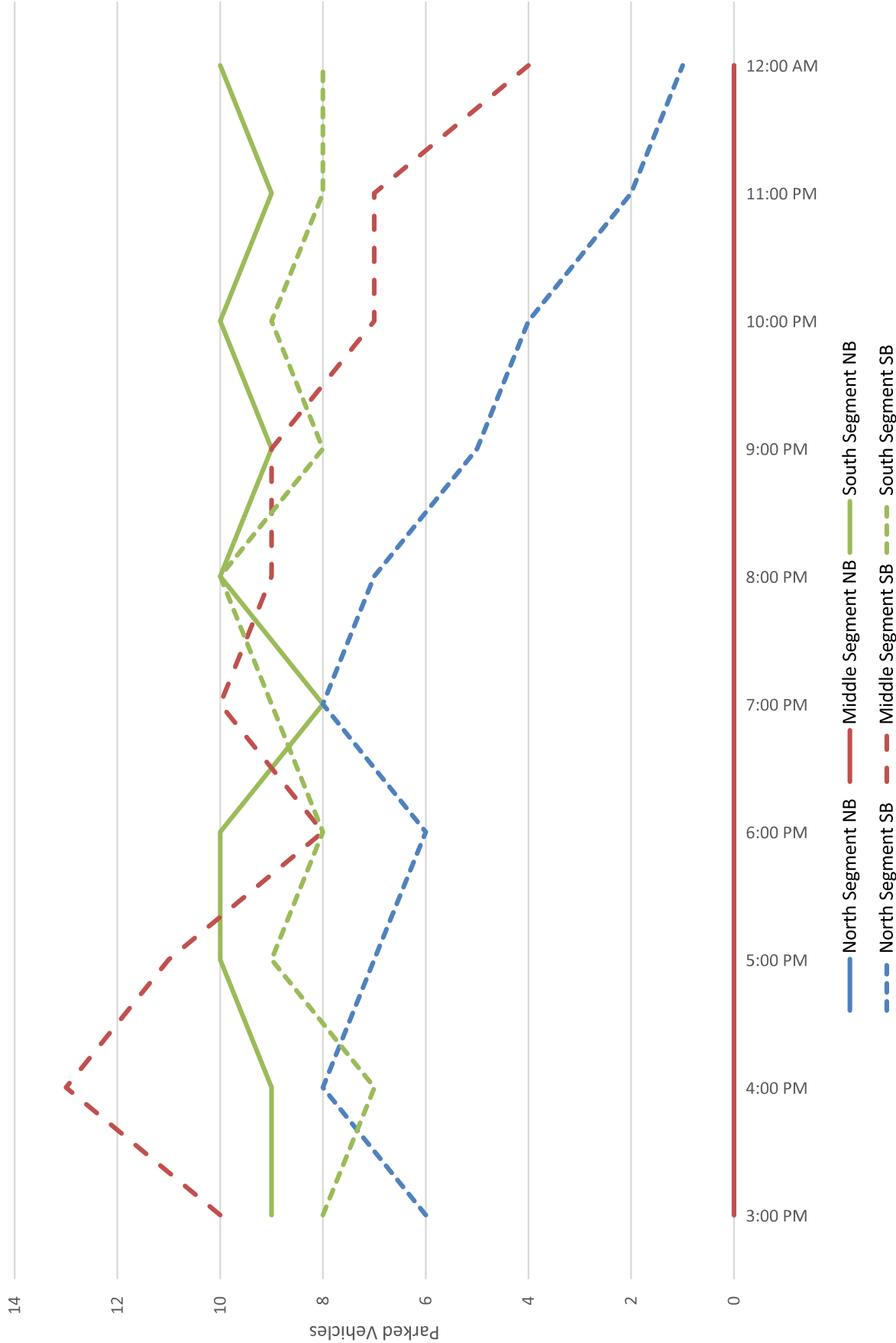


Chart 5 - Preserve Parkway On-Street Parking Occupancy
(Monday, August 28, 2023)

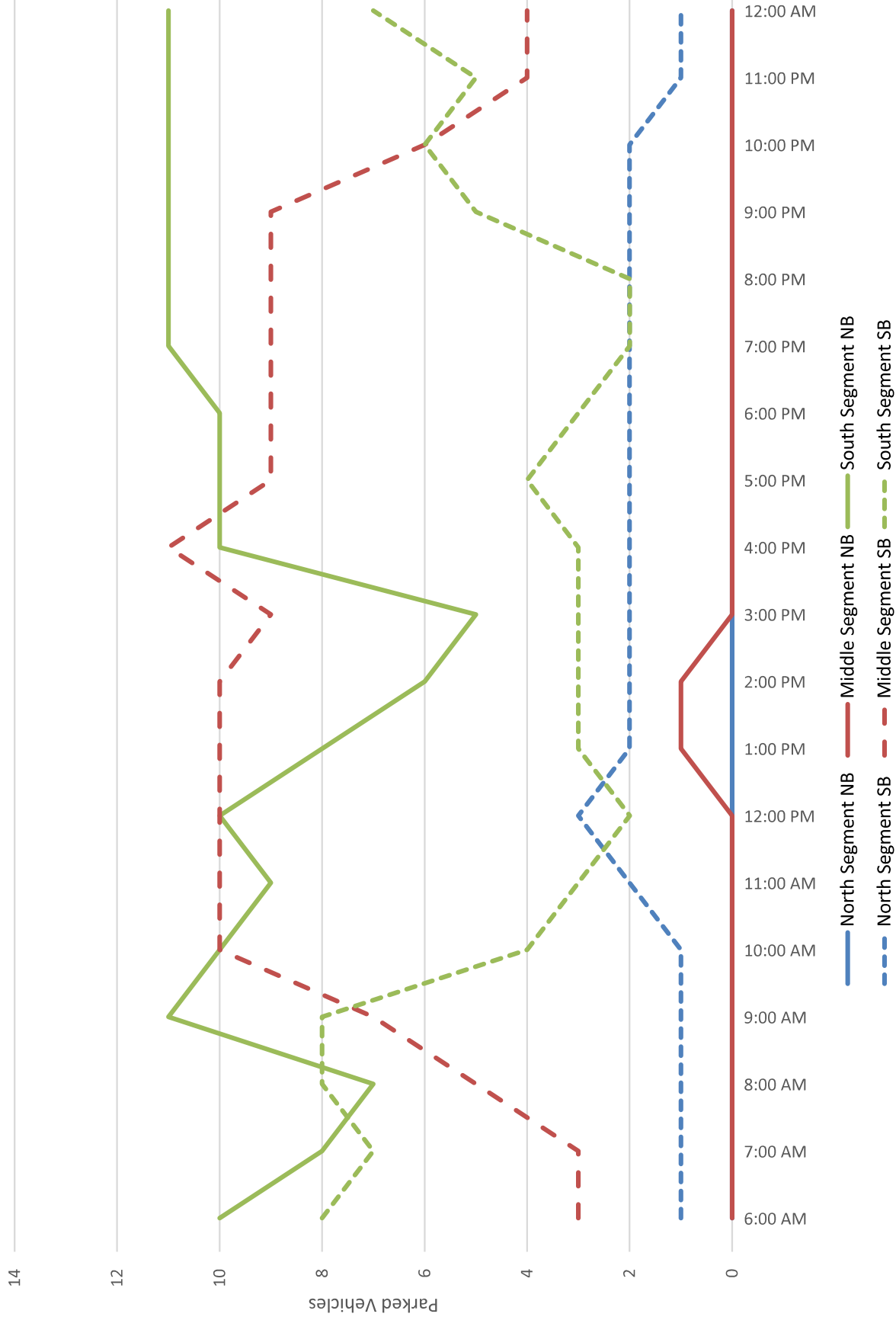


Chart 6 - Preserve Parkway On-Street Parking Occupancy
(Tuesday, August 29, 2023)

