

Technical Memorandum

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Reference Carriage House Parking, Transportation, And Acoustics Assessment

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Subject Transportation Onsite Observations at the Carriage House Club

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1. Introduction

The Carriage House (“the club”), an exclusive private club offering invitation-only membership, is planning to expand their membership and outdoor dining opportunities. The club, located at 264-270 South County Road, Palm Beach, is situated along the major north-south thoroughfare South County Road (S. County Road) and east-west four-lane connector Royal Palm Way, which links Palm Beach with West Palm Beach.

As part of this initiative to understand traffic, curbside, and parking impacts due to a potential increase in club members, Arup’s technical team collected onsite observations at the Carriage House to document key access, parking, and transportation activities. This effort involved observing valet operations, curbside usage, and parking availability at the club during a typical peak weekend. This memorandum presents the results of transportation onsite observations and identifies key findings.

2. Valet Observations at JP Morgan Lot Valet Kiosk

To assess the Carriage House valet service, Arup conducted observations during typical peak dinner hours at the club’s valet kiosk, located in the JP Morgan Lot, both of which are represented, along with site access, in Figure 1. It is important to note that the JP Morgan Lot follows a counterclockwise direction. In addition, a pedestrian alley is located along the perimeter of the club, allowing members to walk directly from S. County Road to the club’s main entrance. The valet observations were conducted during the following dates and times:

- Thursday, February 1, 2024, between 6 PM and 8 PM.
- Friday, February 2, 2024, between 7 PM and 10 PM.
- Saturday, February 3, 2024, between 7 PM and 9 PM.



Figure 1 - Carriage House Valet Kiosk Location and Carriage House Access

2.1 Valet Operations

Based on discussions with valet staff, all staff utilize an iPad and/or a manual ticket system to record members' vehicle location, vehicle brand, and client names. For regular members, valet staff bypass the ticket system and directly address them by their last name. Due to time constraints, specific parking spots and check-in and check-out times are typically not reported. During dinner hours, valet staff are not allowed to park vehicles at the JP Morgan Lot. Therefore, all member vehicles are parked at 230 Royal Palm Lot, which is located across the street from the club. The vehicular travel path between the valet kiosk and the 230 Royal Palm Lot is illustrated in Figure 2.

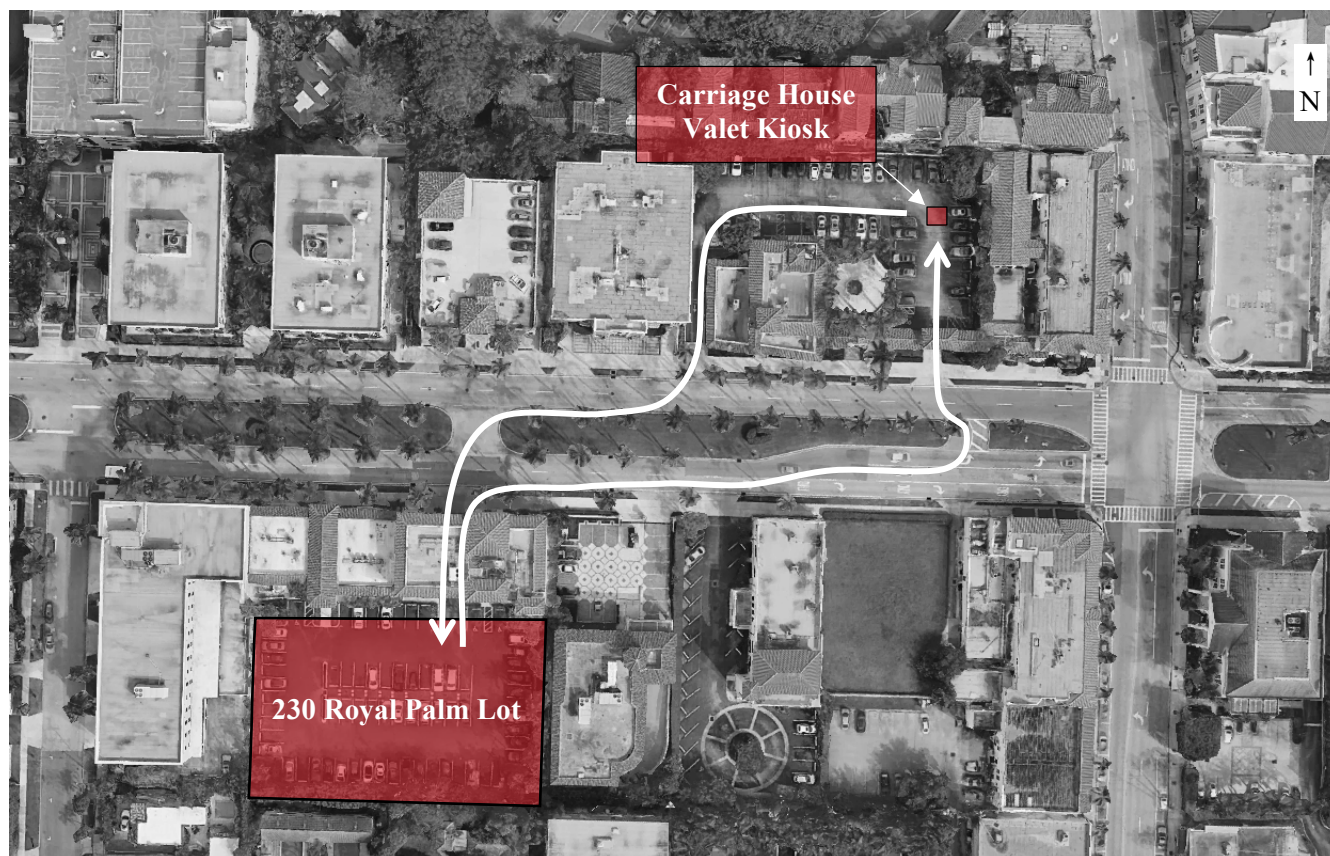


Figure 2 - Valet Parking Travel Path during Dinner Time

2.2 Valet Utilization

To ensure efficient valet service for club members, the valet team utilizes an incremental shift system, adjusting the number of valets based on anticipated demand from reservations. Per discussions with valets, the valet staff ranges from two to four staff members with an average of three valets. One valet staff is always stationed at the kiosk for immediate club member assistance. Figure 3 illustrates the valet utilization during dinner hours for each observation. The highest observed number of valet staff during Arup's data collection efforts was three, as shown in Figure 3 below.

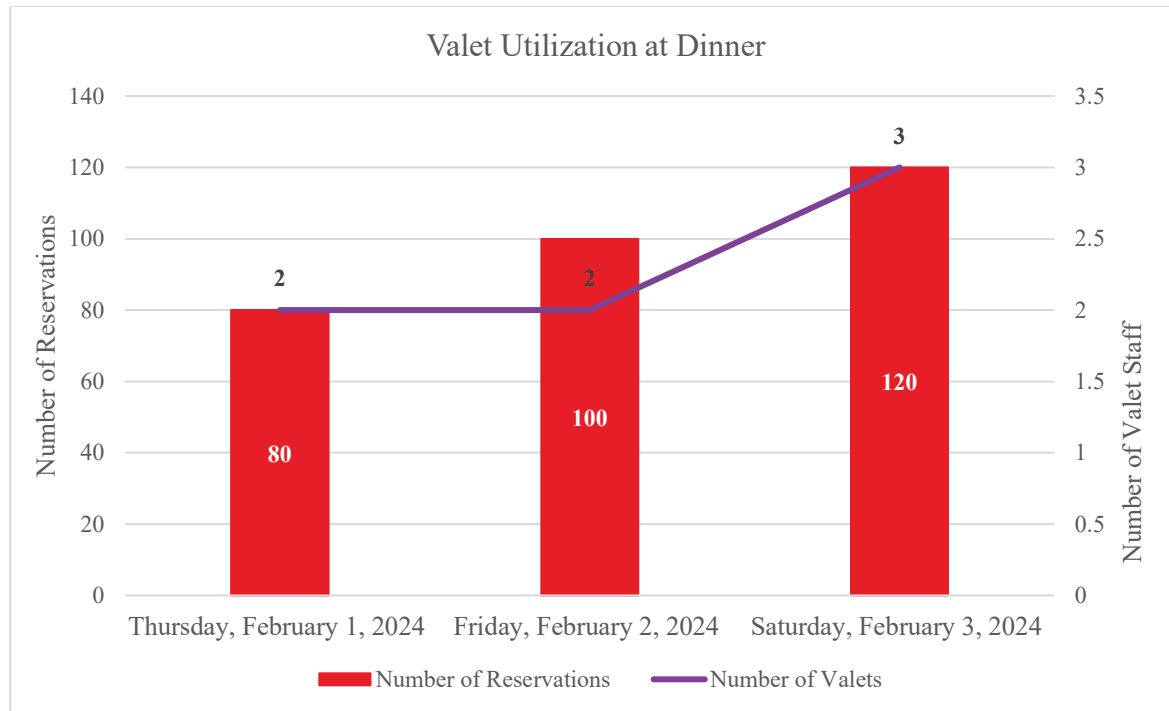


Figure 3 - Valet Utilization during Dinner Time

Key findings from this data collection effort include:

- The number of valet staff ranges between two to four with an average of three.
- The number of valet staff is adjusted based on anticipated demand from the number of reservations.

2.3 Member Counts

Per discussions with valet staff, club members spend an average of two hours at the club. The total number of members observed during each observation period is provided in the list below:

- 79 members on Thursday, February 1, 2024, between 6 PM and 8 PM over a two-hour period.
- 126 members on Friday, February 2, 2024, between 7 PM and 10 PM over a two-hour period.
- 82 members on Saturday, February 3, 2024, between 7 PM and 9 PM over a three-hour period.

Figures 4, 5, and 6 illustrate the distribution of members arriving (as shown in red) and departing (as shown in blue) from the club for each observation period.

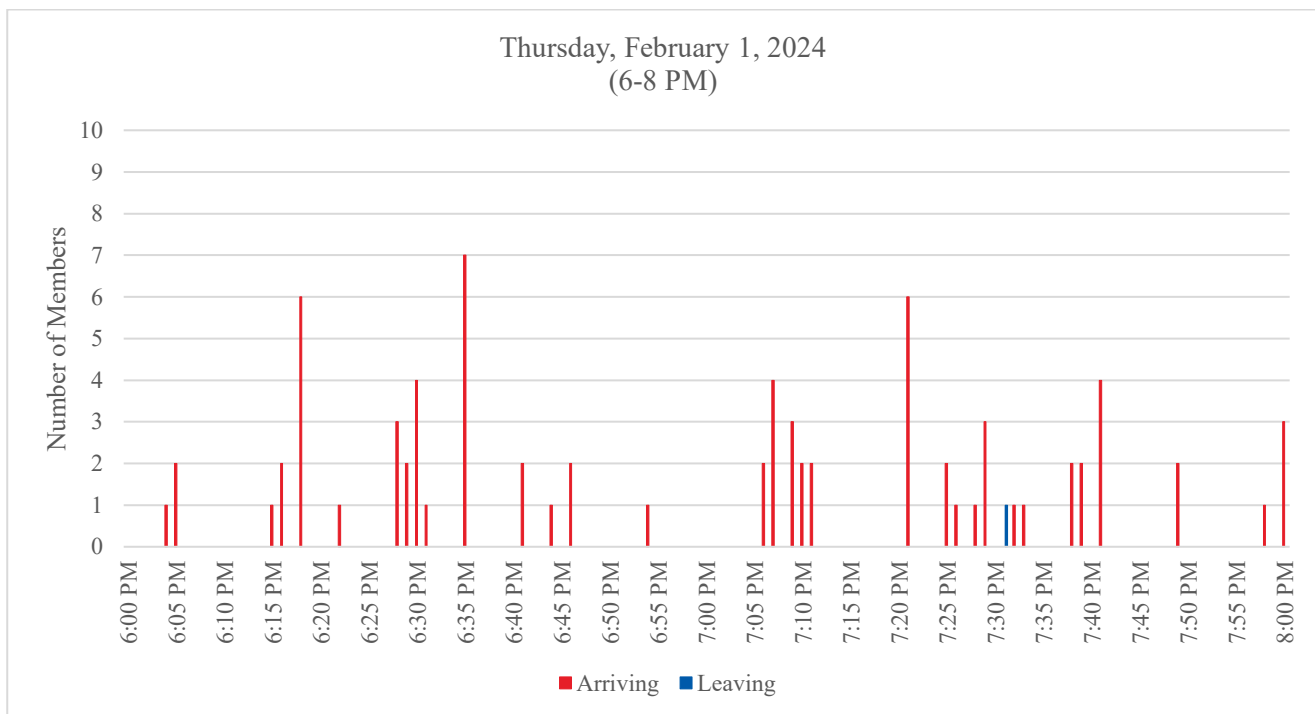


Figure 4 - Number of Members Arriving and Leaving on Thursday, February 1, 2024, between 6 PM to 8 PM

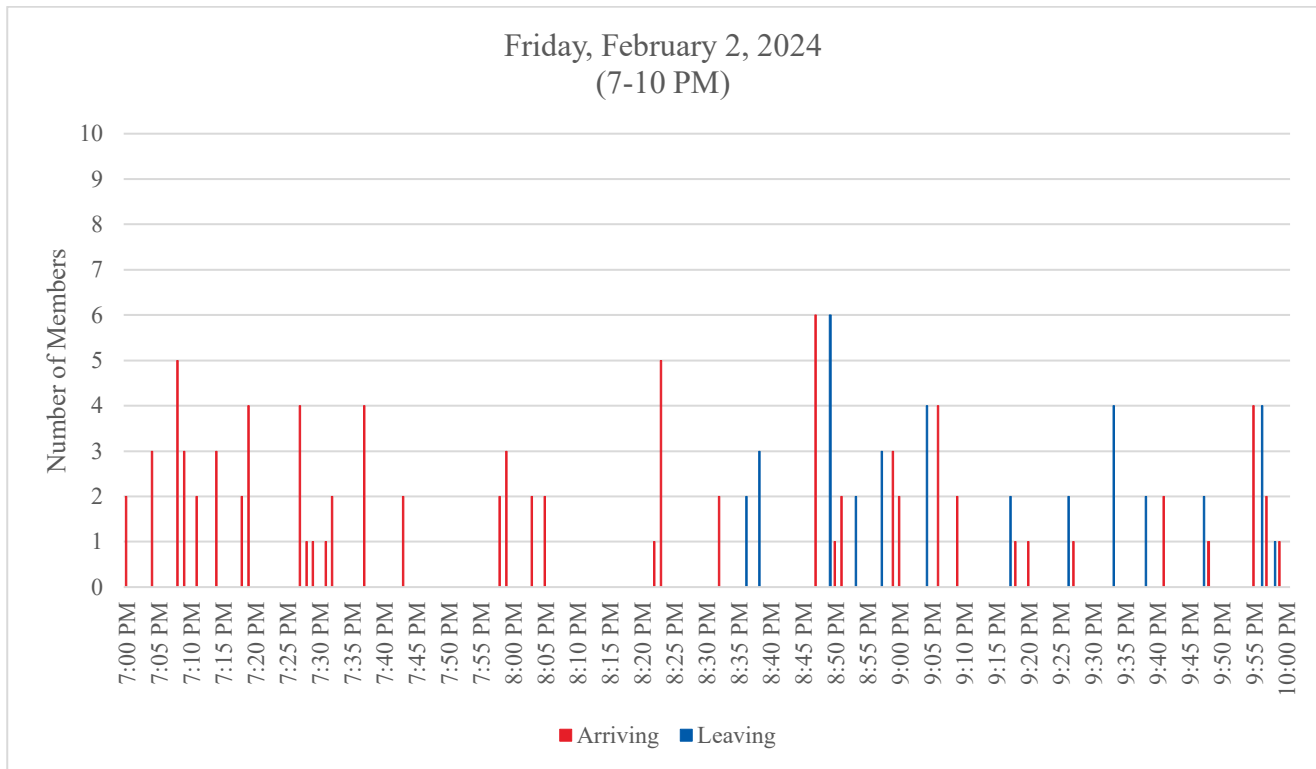


Figure 5 - Number of Members Arriving and Leaving on Friday, February 2, 2024, between 7 PM to 10 PM

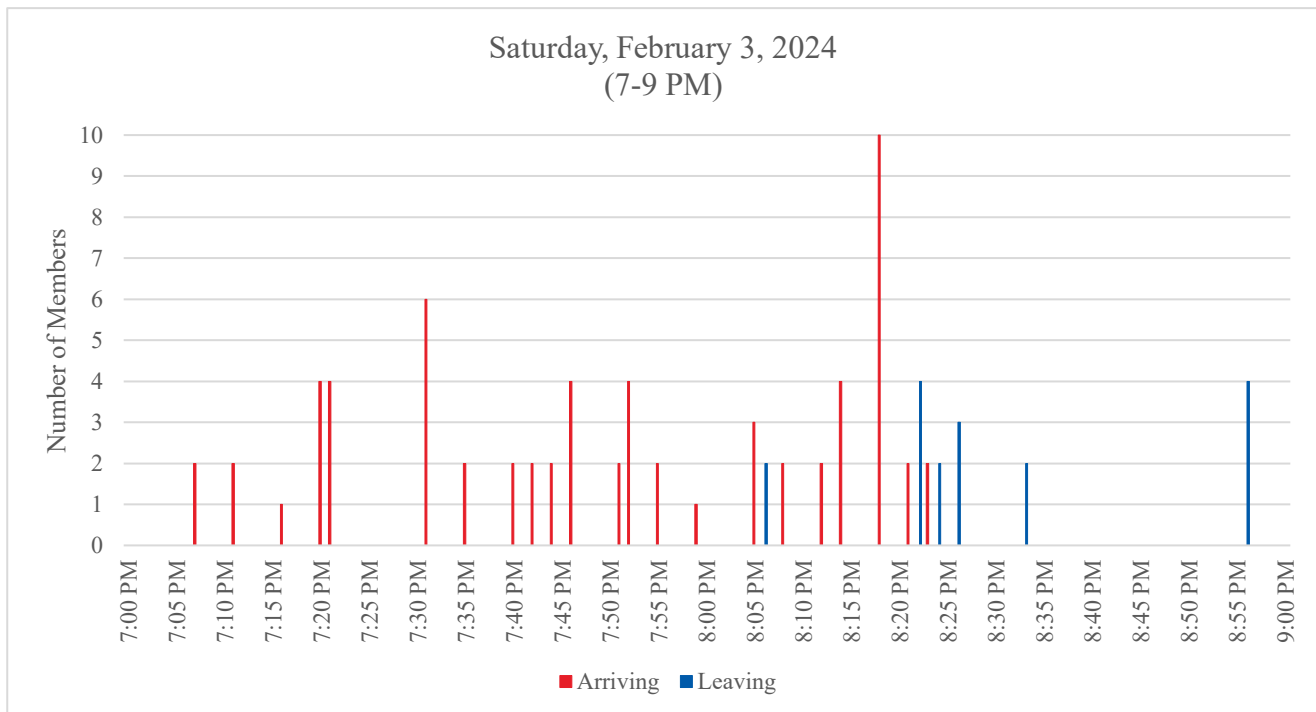


Figure 6 - Number of Members Arriving and Leaving on Saturday, February 3, 2024, between 7 PM to 9 PM

Key findings from this data collection effort include:

- Most members arriving to the Carriage House before 8 PM and depart after 8 PM.
- During dinner hours, there were no observations of club member vehicles queuing on Royal Palm Way at the entrance to the JP Morgan Lot.
- No queues generated by the club members were observed in the eastbound left-turn lane at Royal Palm Way and S. County Road during dinner hours.

2.4 Vehicle Occupancy

The vehicle occupancy (number of club members in each vehicle) for each observation period is shown in Figures 7, 8, and 9. The results of the conducted observations indicate that:

- On **Thursday, February 1, 2024**, between 6 PM and 8 PM, the vehicle occupancy had an average of two members per vehicle with a minimum of one member per vehicle and a maximum of four members per vehicle.
- On **Friday, February 2, 2024**, between 7 PM and 10 PM, the vehicle occupancy had an average of two members per vehicle with a minimum of one member per vehicle and a maximum of six members per vehicle.
- On **Saturday, February 3, 2024**, between 7 PM and 9 PM, the vehicle occupancy had an average of two members per vehicle with a minimum of one member per vehicle and a maximum of six members per vehicle.

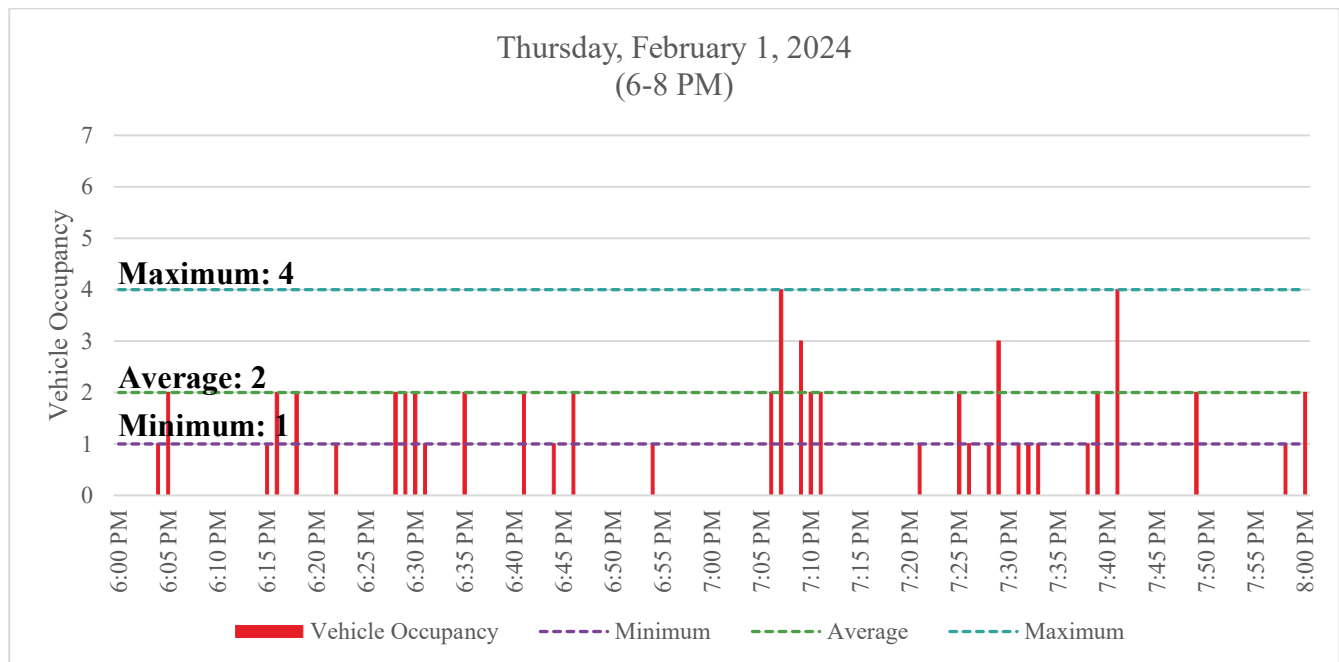


Figure 7 - Vehicle Occupancy on Thursday, February 1, 2024, between 6 PM to 8 PM

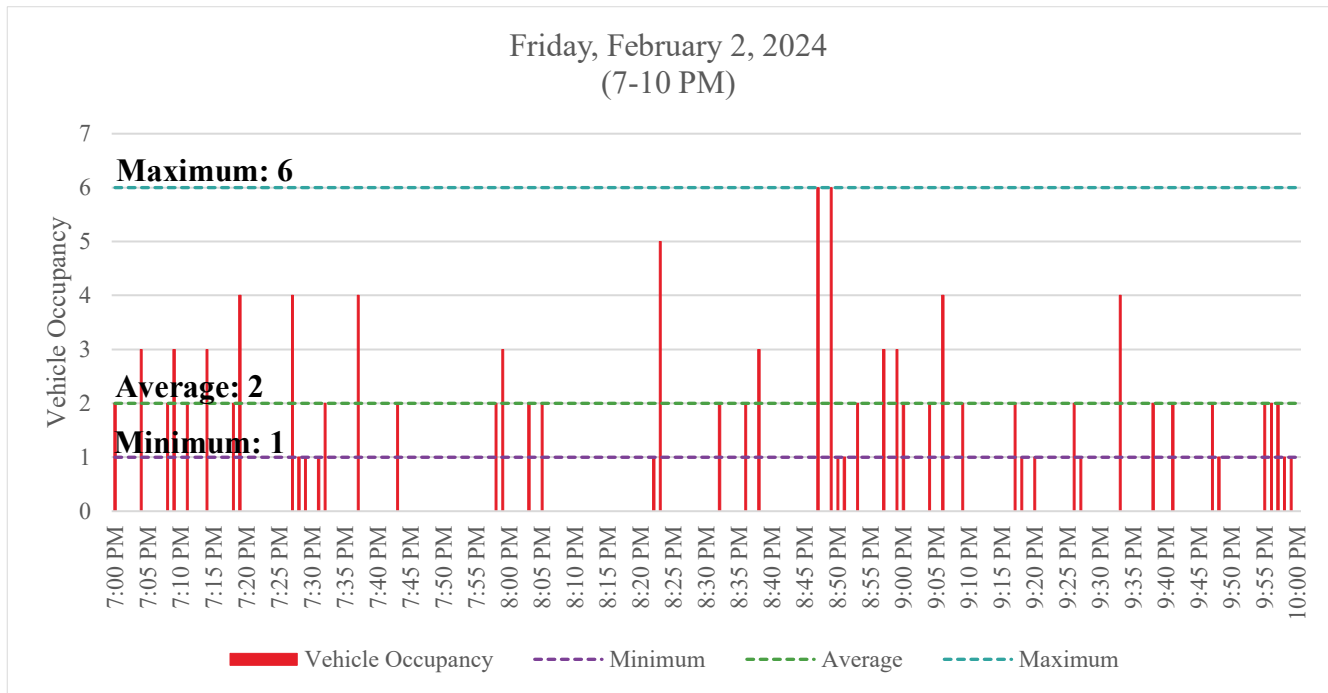


Figure 8 - Vehicle Occupancy on Friday, February 2, 2024, between 7 PM to 10 PM

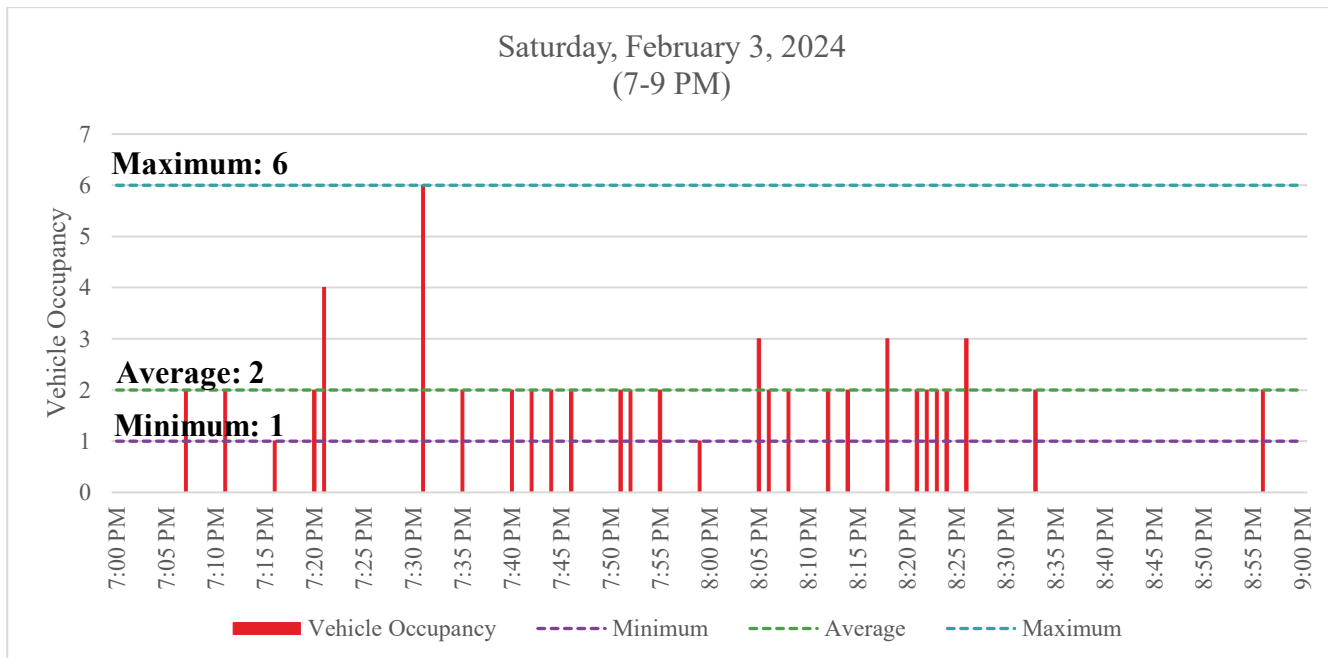


Figure 9 - Vehicle Occupancy on Saturday, February 3, 2024, between 7 PM to 9 PM

Key findings from this data collection effort include:

- The vehicle occupancy varies between one to six members per vehicle.
- The average vehicle occupancy is two members per vehicle.

2.5 Mode Split

Based on the conducted observations, club members utilize various modes of transportation when arriving at or departing from the club. These modes include:

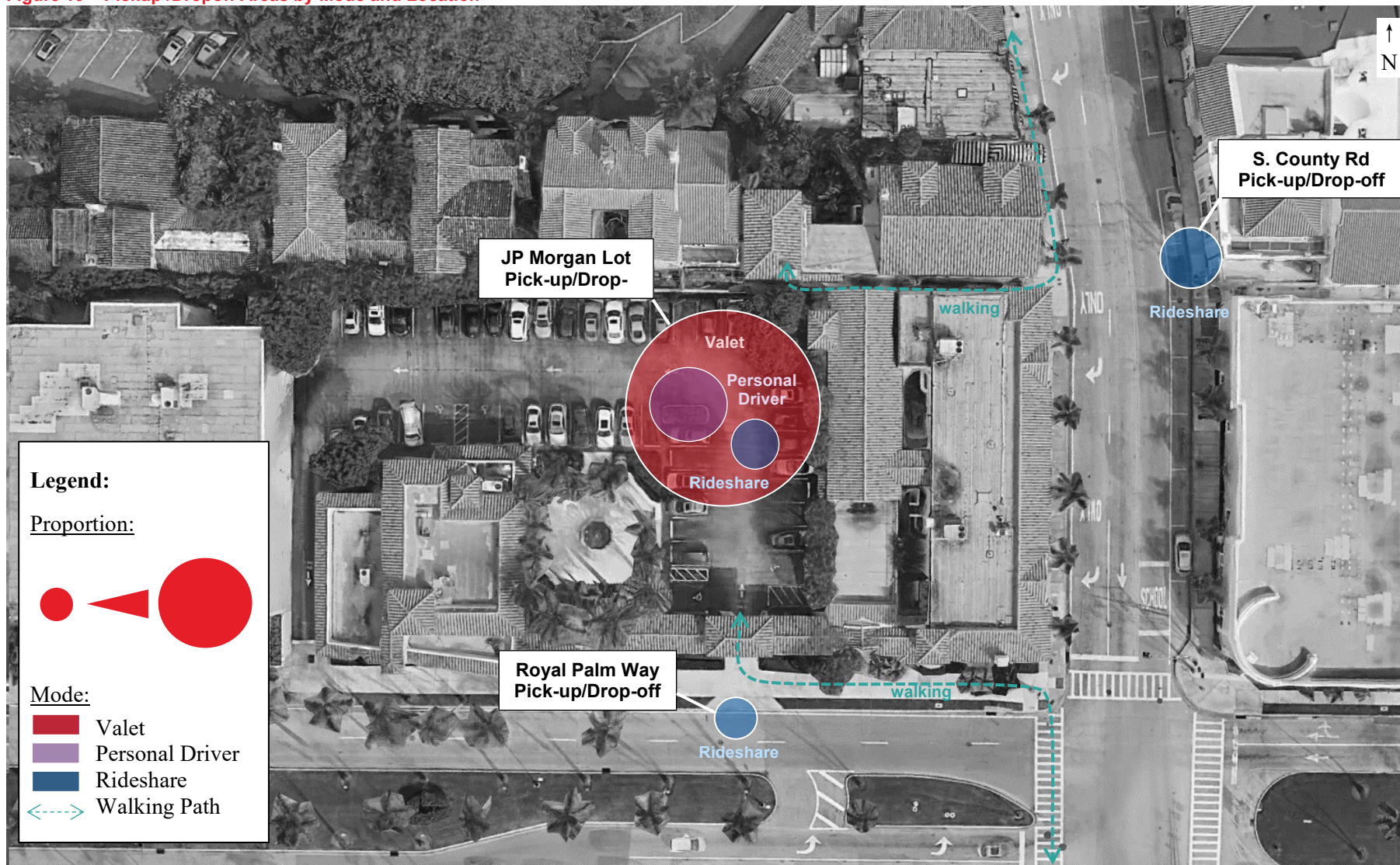
- Personal Vehicles (with or without a personal driver)
- Rideshare Services (such as Uber or Lyft)
- Walking

The technical team did not observe any club members arriving to or departing from the club via bicycles or public transportation.

The drop-off and pick-up areas and adjacent walking paths are depicted in Figure 10. Members using valet or personal driver services are typically dropped off and picked up at the JP Morgan Lot at the valet kiosk. Observations also revealed that rideshare services do not have a designated area for drop-off and pick-up activities. Rideshare activities were observed at three locations: S. County Road, the JP Morgan Lot valet kiosk, and Royal Palm Way.

As shown in Figures 11 and 12, most members access the club via valet service (between 66% and 95%). The highest usage of the other modes of transportation occurred on Friday, with 34% of members accessing the club without utilizing the valet service. This 34% is broken down to include: 7% percent using a personal driver, 14% using rideshare services and the remaining 13% accessing the club by walking.

Figure 10 – Pickup /Dropoff Areas by Mode and Location



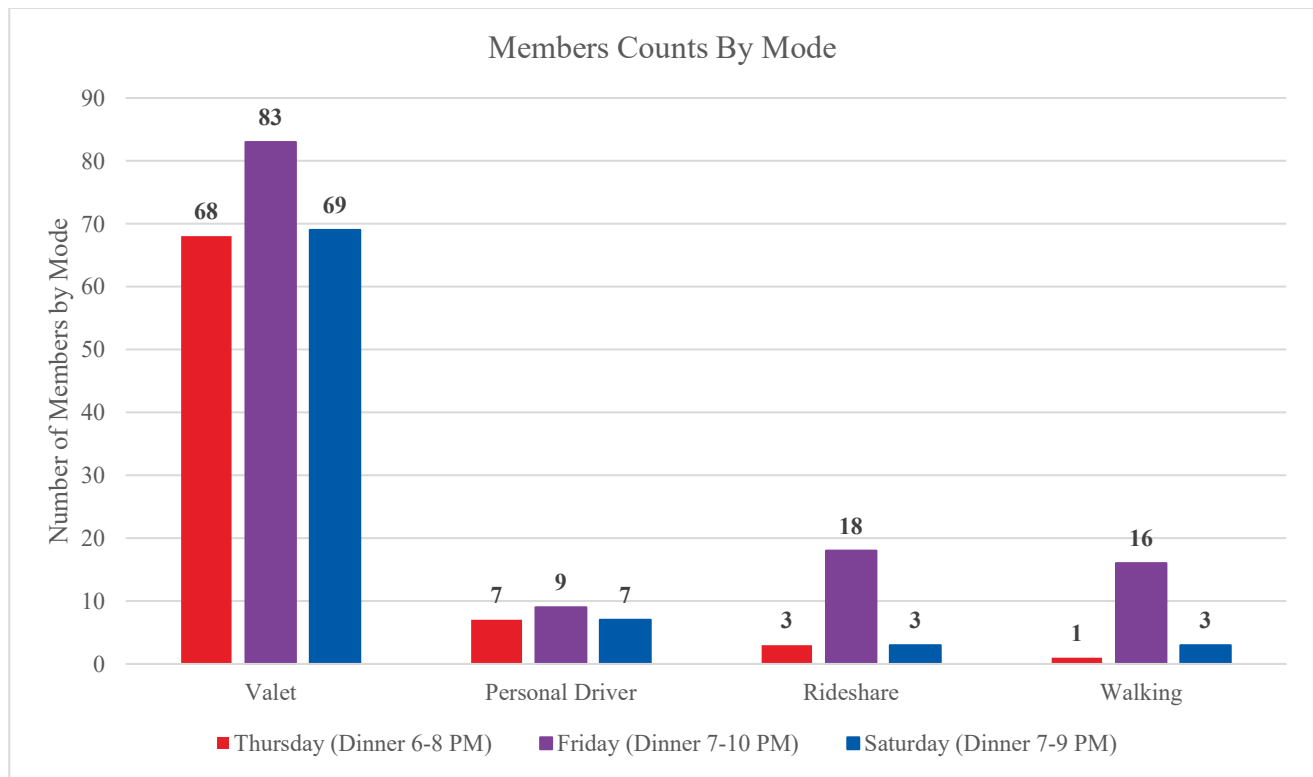


Figure 11 - Number of Members by Mode during Dinner Hours (Collected on Thursday, 2/1, Friday, 2/2, and Saturday, 2/3)

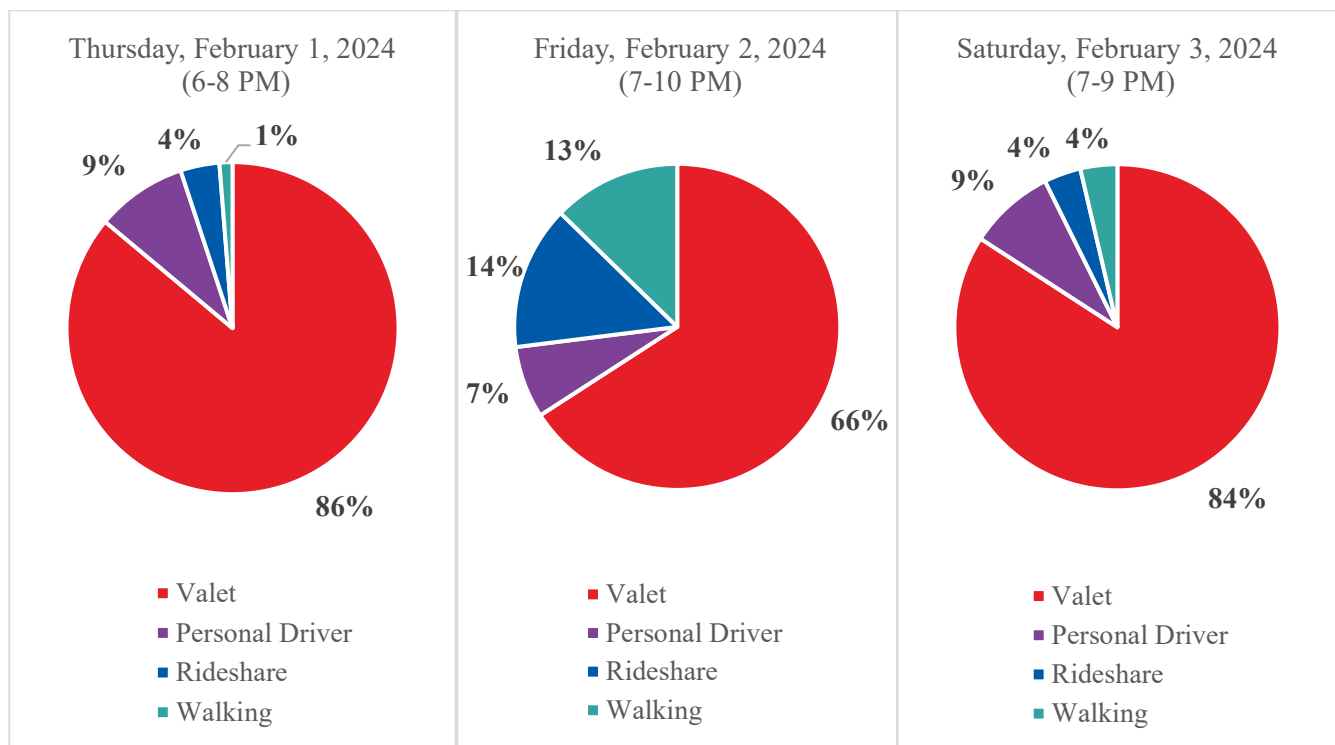


Figure 12 - Percentage of Members by Mode during Dinner Hours (Collected on Thursday, 2/1, Friday, 2/2, and Saturday, 2/3)

Key findings from this data collection effort include:

- Most members arrive to and depart from the club using the valet service (between 66% to 95%)
- Other modes of transportation include personal driver, rideshare, and walking (no biking or transit). The highest usage of these alternative modes occurred on Friday.

3. S. County Road Entrance / Alley Observations

3.1 S. County Road Curbside Usage

Arup conducted observations of curbside utilization and activity on S. County Road during the following dates and times:

- Friday, February 2, 2024, between 6 PM and 7 PM
- Saturday, February 3, 2024, between 7 PM and 9 PM.

Table 2 documents the number of personal vehicles and rideshare vehicles observed that dropped off or picked up club members during Friday, 2/2 and Saturday, 2/3.

Table 1 - S. County Rd Curbside Usage

	Personal Vehicle	Rideshare Vehicles	Total
Friday, February 2, 2024 (6-7 PM)	0	0	0
Saturday, February 3, 2024 (7-9 PM)	0	1	1

3.2 Rideshare Usage

As shown in Figure 12 (above), up to 13% of members use rideshare services (such as Uber or Lyft) to access the club. Rideshare activity was identified at three locations: S. County Road, within the JP Morgan Lot, and at the Royal Palm Way ingress/egress to the JP Morgan Lot. At dinner time, when rideshare services are scheduled in advance, valet staff direct rideshare drivers to wait at the 230 Royal Palm Lot. At the JP Morgan Lot, valet staff typically need to monitor rideshare drivers who frequently attempt to exit the lot in the incorrect direction. Table 3 documents the number of vehicles observed that dropped off or picked up club members during Thursday, 2/1, Friday, 2/2 and Saturday, 2/3.

Table 2 - Rideshare Usage by Location

	S. County Road	JP Morgan Lot	Royal Palm Way	Total
Thursday, February 1, 2024 (6-8 PM)		2	0	2
Friday, February 2, 2024 (6-7 PM)	0			0
Friday, February 2, 2024 (7-10 PM)		3	1	4
Saturday, February 3, 2024 (7-9 PM)	1	1	0	2

Key findings from this rideshare data collection observations include:

- Up to 13% of members use rideshare services to access the club.
- There is no designated space for rideshare services to drop-off and/or pick-up at the Carriage House.
- Rideshare activities were observed at three locations adjacent to the club: S. County Road, inside the JP Morgan Lot and at the entrance to the JP Morgan Lot on Royal Palm Way.
- At the JP Morgan Lot, valet staff monitor rideshare drivers who frequently attempt to exit the lot in the incorrect direction.

3.3 Walking

As depicted in Figure 12, club members have been observed walking from both S. County Road and Royal Palm Way through the JP Morgan lot. As previously indicated, walking constitutes a relatively small percentage of the preferred transportation modes, with only one and three members observed walking to or from the Carriage House on Thursday and Saturday, respectively. However, on Friday, a larger number of members (16) were observed walking to or from the club. The distribution between members walking from S. County Road and the JP Morgan Lot on Friday is illustrated in Figure 13.

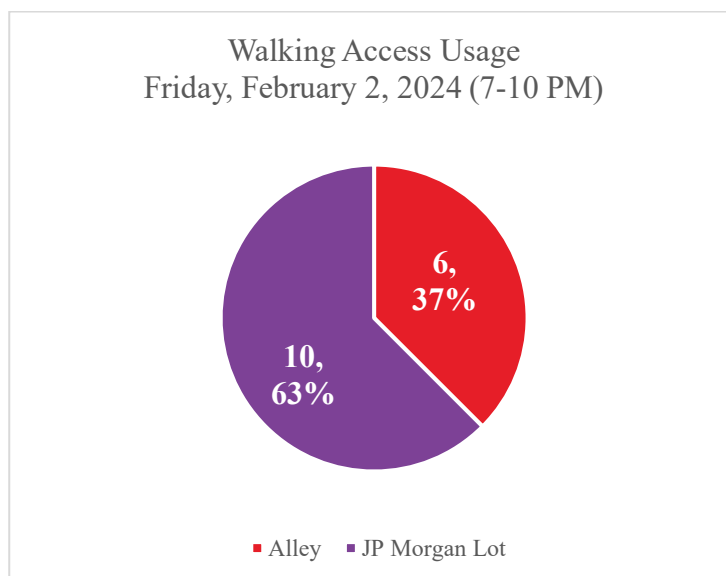


Figure 13 – Walking Access Usage – Friday, February 2, 2024 (7-10 PM)

It should be noted that members utilizing rideshare services on S. County Road were also observed walking through the alley. Specifically, eight members were observed using the alley to access rideshares on Friday, February 2, 2024, between 7 PM and 10 PM.

4. Valet Parking Observations

To understand existing parking demand at the Carriage House, a detailed parking utilization analysis was conducted at the 230 Royal Palm Lot at the following dates and times:

- Thursday, February 1, 2024, between 8 PM. and 9 PM
- Saturday, February 3, 2024, between 6 PM and 7 PM.

This data was collected by counting the number of parking vehicles at the 230 Royal Palm Way Lot.

4.1 Dinner Valet Parking Operations

As previously indicated, valet staff are not permitted to park vehicles in the JP Morgan Lot. Therefore, off-site valet parking is provided for members and guests at the 230 Royal Palm Way Lot. As indicated in the Kimley Horn study dated January 30, 2024, the Carriage House has a lease agreement in place with the owner of the parking lot for the use of 68 parking spaces. The parking layout is shown in Figure 14. It should be noted that one space is dedicated to the Carriage House to charge the Carriage House golf cart as shown in Figure 15.

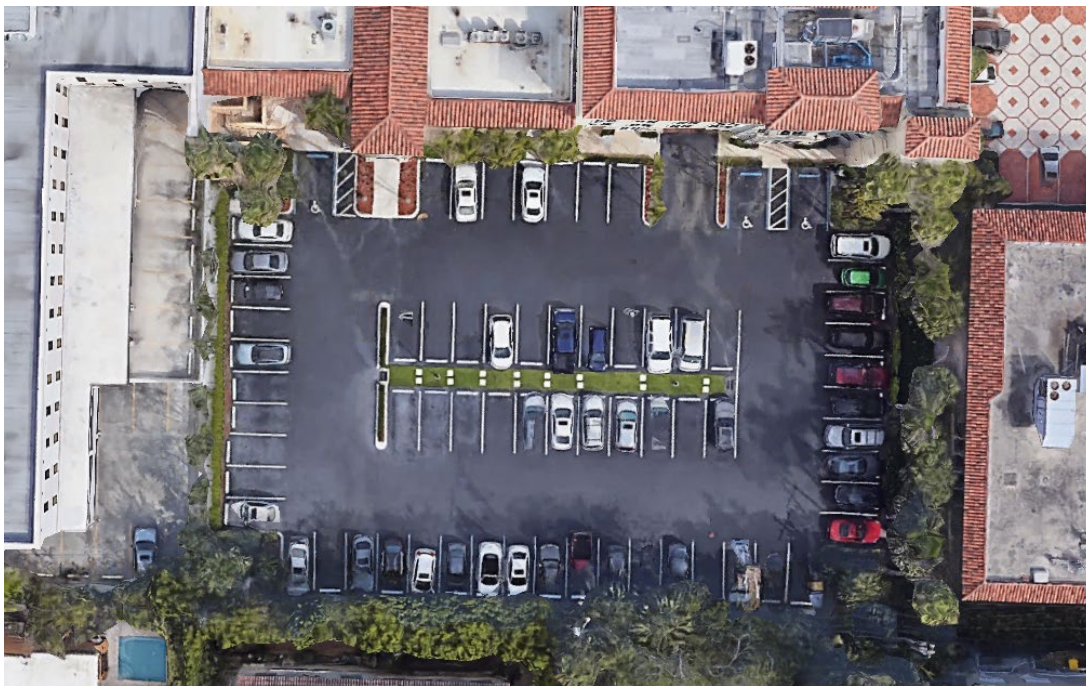


Figure 14 - 230 Royal Palm Way Lot Parking Layout (Source: Google)



Figure 15 - Carriage House Designated Space Only (Golf Cart Charging Space)

4.2 Parking Utilization Analysis

The results of the 230 Royal Palm Way Lot parking utilization analysis (collected on Thursday, February 1, 2024, and Saturday, February 3, 2024), are shown in Figures 16 and 17, respectively. The figures incorporate a reference line representing the ideal parking utilization rate of 80%, which serves as a benchmark for optimal parking usage for a given parking asset.

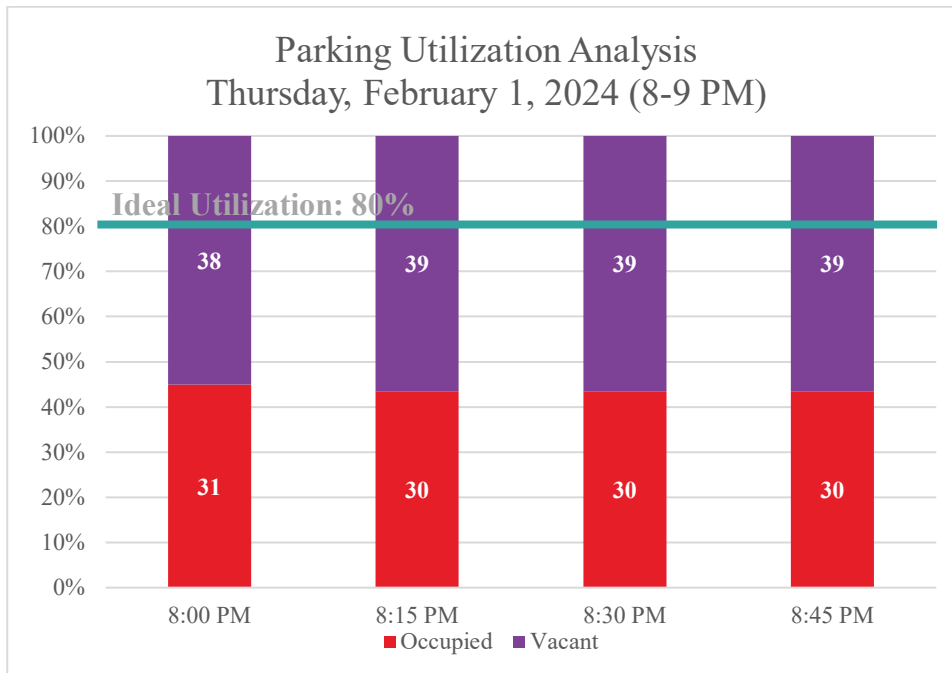


Figure 16 - Parking Occupancy Surveys (230 Royal Palm Way Lot) – Thursday, February 1, 2024

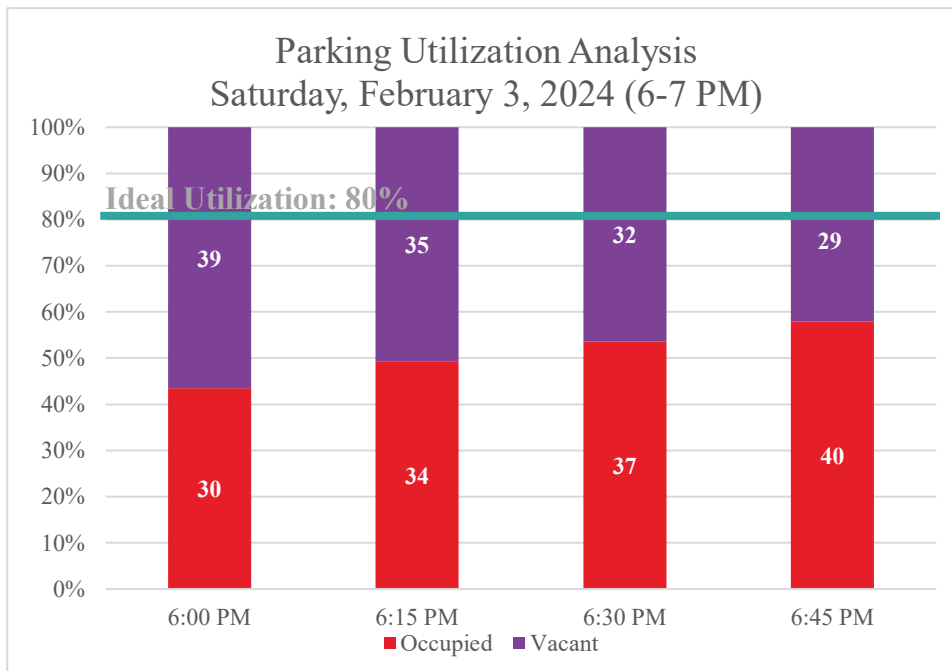


Figure 17 - Parking Occupancy Surveys (230 Royal Palm Way Lot) – Saturday February 3, 2024

Key findings from the parking utilization analysis include:

- The maximum parking occupancy observed at the Royal Palm Way Lot is 40 parking spaces, resulting in a parking occupancy of 59%.
 - Therefore, the 230 Royal Palm Way Lot can accommodate additional parking demand (between 41% - 57%) during a typical peak weekend.

4.3 Institute of Transportation Engineers Parking Rates

As indicated in the Kimley-Horn traffic impact analysis and parking evaluation study, the Carriage House Site was previously approved for a 153-seat private club/restaurant serving 232 club members. While the number of memberships is expected to increase by 75 members each year for three years, the number of seats will not be increased.

Based on a review of survey data published by the Institute of Transportation Engineers (ITE) in the Parking Generation Manual, 5th Edition for Land-Use Code 910 (Quality Restaurants), the following was determined:

- On Friday, the peak parking demand will be 46 parking spaces (68% utilization) resulting in a surplus of 22 parking spaces.
- On Saturday, the peak parking demand will be 54 parking spaces (79% utilization) resulting in a surplus of 14 parking spaces.

Considering the desire for the increase in members, the maximum parking occupancy that could occur at the 230 Royal Palm Lot is 79%. Given that the number of seats will not increase, the parking will continue to accommodate the peak parking demand of the Carriage House.

Key findings from the parking projection analysis include:

- The 230 Royal Palm Lot can adequately accommodate the existing demand from the Carriage House.
- Considering that the Carriage House's seating capacity will remain unchanged, the 230 Royal Palm Lot will continue to accommodate the future parking demand despite the increase in membership.

5. Conclusion

The following section provides a summary of all observations conducted by the Arup Technical Team at the Carriage House during the typical peak weekend of Thursday, February 1st, 2024, to Saturday, February 3rd, 2024.

Valet Operations

- Valet staff are not allowed to park vehicles at the JP Morgan Lot and park all member vehicles at the 230 Royal Palm Lot, which is located across the street from the Carriage House.
- The number of valet staff ranges between two to four per night with an average of three valet staff.
- The number of valet staff is adjusted based on anticipated demand from the number of reservations.

Mode of Transportation

- Most members use valet service (between 66% to 95%)
- Other modes of transportation include personal driver, rideshare (such as Uber or Lyft) and walking (no biking or transit). The highest usage of these alternative modes occurred on Friday.
- The vehicle occupancy varies between one to six members per vehicle with an average of two members per vehicle.

Rideshare Services

- Up to 13% of members use rideshare services to access the club.
- There is no designated space for rideshare services to drop-off and/or pick-up at the Carriage House.
- Rideshare activities were observed at three locations adjacent to the club: S. County Road, inside the JP Morgan Lot and at the entrance to the JP Morgan Lot on Royal Palm Way.
- At the JP Morgan Lot, valet staff monitor rideshare drivers who frequently attempt to exit the lot in the incorrect direction.

Parking Utilization

- The Carriage House has a lease agreement in place with the owner of the 230 Royal Palm Lot for the use of 68 parking spaces.
- Parking occupancy surveys illustrate that the 230 Royal Palm Lot has a maximum utilization of 59% during a typical peak weekend. Therefore, the lot can adequately accommodate the existing demand from the Carriage House.
- Based on data published in the ITE Parking Generation Manual, the maximum parking occupancy at the 230 Royal Palm Lot will be 79%, which illustrates that the lot can accommodate additional parking demand even with an increase in members.
- Considering that the Carriage House's seating capacity will remain unchanged, the 230 Royal Palm Lot will continue accommodating future parking demand even with an increase in membership.