



Submitted to: The Town of Palm Beach

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## **APPENDIX A...ITE** Trip Generation Manual Relevant Pages

**APPENDIX B**...FDOT Peak Season Factor Category Report (2023), Turning Movement Counts, Volume Development Sheets, 2024 Town's Annual Roadway Level of Services (by KHA)

**APPENDIX C**...Existing Signal Timing Sheets, US Coast Guard Bridge Opening Schedule and Regulations, Existing (2024) Synchro Output Reports

**APPENDIX D**...Annual Growth Calculations (SERPM), Town's Approved Development and Redevelopment relevant pages, City of West Palm Beach Project Summaries, and Forecasted (2029) Synchro Output Reports

**APPENDIX E**...Existing (2024) Queues Synchro Output Reports, S. Lake Drive One-Way (SB) Synchro Output Reports.

APPENDIX F...Collected Parking Accumulation

**APPENDIX G**... Collected Valet Parking Data, Valet Parking Agreements & Copy of the Town's Valet Parking Permit Application.

# **EXECUTIVE SUMMARY**

The Corradino Group, Inc. was hired on behalf of the Town of Palm Beach (Town) to prepare this traffic and parking study. The traffic and parking study included an evaluation of the following items:

- Traffic Analyses involving a Trip General Comparison, Intersection Capacity Analysis, Origin-Destination Analysis, and South Lake Avenue One-Way Analysis.
- Parking Analysis, which includes Parking Supply and Demand and a Valet Parking Review of 18 restaurant locations.

Below is a summary of the **<u>SCOPE</u>** items:

1. Traffic Analyses

1.1 Trip Generation Comparison -Provide a trip generation comparison of restaurants and commercial and office businesses using the Institute of Transportation Engineers (ITE) Trip Generation Manual (Manual). The purpose of this section of the report is to provide a general idea of the number of potential trips that different land uses and different intensities may generate.

1.2 Intersection Capacity Analysis – Update the intersection capacity analyses completed for the morning and afternoon peak hours for the 2023 and 2028 analyzed scenarios at twenty-three (23) intersections, with morning, mid-day, and afternoon peak periods for existing 2024 conditions and future (2029) conditions at twenty-four (24) intersections (signalized and unsignalized) within the Town. For the completion of this effort, new turning movement counts were collected.

The following is the list of the twenty-four (24) intersections that were analyzed:

- 1. County Road and Golfview Road (Signalized)
- 2. County Road and Worth Avenue (Signalized)
- 3. County Road and Peruvian Avenue (Signalized)
- 4. County Road and Chilean Avenue (Unsignalized)
- 5. County Road and Australian Avenue (Unsignalized)
- 6. County Road and Brazilian Avenue (Unsignalized)
- 7. County Road and Royal Palm Way (Signalized)
- 8. County Road and Seaview Avenue (Unsignalized)
- 9. County Road and Royal Poinciana Way (Signalized)
- 10. County Road and Breakers Row (Signalized)
- 11. County Road and Sunset Avenue (Signalized)
- 12. County Road and Sunrise Avenue (Signalized)



- 13. Bradley Place and Sunset Avenue (Unsignalized)
- 14. Bradley Place and Sunrise Avenue (Signalized)
- 15. Cocoanut Row and Royal Poinciana Way (Signalized)
- 16. Cocoanut Row and Royal Palm Way (Signalized)
- 17. Ocean Boulevard and Southern Boulevard (Roundabout)
- 18. Lake Drive and Royal Palm Way (Unsignalized)
- 19. Lake Drive and Brazilian Avenue (Unsignalized)
- 20. Lake Drive and Australian Avenue (Unsignalized)
- 21. Lake Drive and Chilean Avenue (Unsignalized)
- 22. Lake Drive and Peruvian Avenue (Unsignalized)
- 23. Cocoanut Row and Worth Avenue (Unsignalized)
- 24. Cocoanut Row and Seaview Avenue (Unsignalized)

The purpose of these analyses is to provide an update of the traffic operating conditions of the twenty-four (24) intersections listed above utilizing 2024 traffic counts and provide recommendations to improve any excessive delays or capacity issues, as well as turn lane storage length capacity issues where turn lane vehicle queues block the adjacent through movements.

1.3 South Lake Drive One-Way Analyses – Evaluate the potential modification of South Lake Drive between Royal Palm Way and Peruvian Avenue from a two-way corridor to a one-way southbound corridor. The purpose of this section is to determine the traffic impacts to the adjacent roadway network should the Town decide to move forward with the above-mentioned traffic modifications of South Lake Drive.

1.4 Seaview Avenue Traffic Operations/Conditions – Evaluate the existing traffic operations of the Seaview Avenue corridor between Cocoanut Row and S. County Road during the arrival and dismissal periods of the Palm Beach Elementary School and Palm Beach Day Academy, both located along this corridor. The purpose of this section is to determine if there are any operational deficiencies along the corridor or excessive queuing due to the two school's arrival and dismissal operations.

1.5 Origin - Destination Analysis – Evaluate STREETLIGHT DATA to determine the current traffic patterns to the Town for average weekday and weekend conditions. STREETLIGHT DATA is a technology platform that gathers and reviews data obtained from Connected Vehicle Data (CVD), GPS Data and smartphone data (among others) on a daily, weekly, or monthly basis. It allows users to select zones or roadways and analyze where travel originates and ends. The purpose of this evaluation is to determine the following:

- What percentage of the daily traffic is local traffic or traffic from outside of the Town and
- To determine the distribution of traffic originating from each entry point into the Town.
- 2. Parking Analysis

Parking Supply and Demand – Evaluate the existing parking supply, parking utilization, parking accumulation, and parking strategies of the Town's Commercial Areas to answer the following three items.

- 1. How much parking is provided in the study areas?
- 2. How is parking utilized, and if the current demand exceeds capacity?
- 3. Identify feasible strategies for increasing total or localized available parking utilization that is both satisfactory to the Town's residents and productive for businesses.

Valet Parking Analysis – Complete valet queuing data collection and general observations at eighteen (18) restaurant locations selected by the Town within the commercial areas during a regular weekday PM peak period and a weekend PM peak period. These observations aim to identify operational issues related to existing valet operations and traffic circulation patterns of these 18 locations. The following is the list of the specific eighteen (18) restaurant locations evaluated.

- 1. Meat Market Steakhouse
- 2. Echo Palm Beach
- 3. Palm Beach Catch
- 4. Lola 41 Palm Beach
- 5. Trevini Ristorante
- 6. Cucina Palm Beach
- 7. Henry's Palm Beach
- 8. Almond Palm Beach



- 9. Carriage House Club
- 10. La Goulue Palm Beach
- 11. Buccan Palm Beach
- 12. Bricktops Palm Beach
- 13. Pizza Al Fresco
- 14. Bice Ristorante
- 15. Club Colette
- 16. Café Via Flora
- 17. Ta-boo Restaurant
- 18. Le Bilboquet Palm Beach

The following is a summary of the **FINDINGS** for each of the scope items.

### 1. Traffic Analysis

## 1.1 Trip Generation Comparison

Tables 1 and 2 below summarize the results of the potential expected trips from different land uses and size/densities assigned by the Town during the AM and PM peak hours, respectively, according to the ITE Trip Generation Manual (Manual), 11<sup>th</sup> Edition. This Manual is the most widely used industry resource for preparing transportation impact analyses.

AM PEAK HOUR TRIP GENERATION COMPARISION												
	Description	Size	Net New Trips									
	Description	/Density*	In	Out	Total							
932	High Turnover (Sit-Down) Restaurant	8000 sf.	42	35	77							
822	Strip Retail Plaza <40k sf.	30,000 sf.	42	29	71							
821	Shopping Plaza 40 - 150k sf.	. 80,000 sf.	175	107	282							
710	General Office Building	100,000 sf.	147	20	167							

Table 1 AM Peak Hour Generator (Summary)

\* (sf.) Square feet of gross leasable area



PM PEAK HOUR TRIP GENERATION COMPARISION												
ITE LUC	Description	Size	Net New Trips									
	Description	/Density*	In	Out	Total							
932	High Turnover (Sit-Down) Restaurant	8000 sf.	44	28	72							
822	Strip Retail Plaza <40k sf.	30,000 sf.	99	99	198							
821	Shopping Plaza 40 - 150k sf.	80,000 sf.	211	228	439							
710	General Office Building	100,000 sf.	28	138	166							

Table 2 PM Peak Hour Generator (Summary)

\* (sf.) Square feet of gross leasable area

#### 1.2 Intersection Capacity Analysis

Level of Service (LOS) is the standard used to evaluate traffic operating conditions in transportation systems. It is measured on an A-F scale, with LOS A representing the best operating conditions from the traveler's perspective and LOS F the worst. However, in recent years, there have been multiple discussions on how a LOS A is most likely not a desirable goal from a transportation perspective. LOS A during the peak travel hour could indicate that the roadway is underutilized, that there has been an inefficient use of funding, and leaves the facility open to higher speeds during the off-peak times and a potential increase in speed-related crashes and their severity. LOS F is also an undesirable condition; it represents a failing condition during the analysis period, meaning that the travel demand exceeds capacity and the facility operates in oversaturated conditions. Figure 1 below provides additional information regarding what Level of Service is (LOS) and what it represents.





Figure 1 What is Level of Service (LOS)? Source: Roadway Capacity & Operations Policy MDOT

Turning movement counts (7:30 AM to 5:30 PM) were processed between 7:30 AM and 5:30 PM to identify the morning, midday, and afternoon peak hours of the assigned twenty-four (24) intersections. These turning volumes were seasonally adjusted based on this area's most current FDOT Peak Season report. Additional information regarding the traffic data that was collected and reviewed is included in Section 1.2.2 DATA COLLECTION of this study.

Based on recent conversations with Town staff, the Town has been working on deploying Adaptive Traffic Control Systems (ATCS) at all signalized intersections within the Town's jurisdiction since the last quarter of 2023. The ATCS aims to provide optimized signal timing plans based on real-time traffic demands. This Centracs Edaptive module offers deep analytical capabilities through Econolite's Centracs SPM (Signal Performance Measures) and Pattern Optimizer modules, allowing users to ensure maximum performance of their signal control system quickly and easily. With this technology, the Town can run its own intersections' traffic operational reports and obtain "real-time" signal delay and other key metrics from each signalized intersection.



The seasonally adjusted turning volumes at the study intersections were modeled using Synchro 12 Signal Timing and Analysis Software to establish a baseline for the new signal timing modifications and corridors' coordination, as provided by Town staff. It should be noted that there are some limitations with utilizing Synchro software, as this software does not model the proprietary algorithms from the Econolite Centracs Edaptive Signal Control System, and that the results of the signalized intersections operational analyses presented in this traffic study reflect the actuated-coordinated signal timings at most of the signalized intersections within the Town's jurisdiction. Historically, the Town's traffic signals were uncoordinated and semi-actuated.

Based on the results of the existing conditions (2024) traffic analyses, all the signalized intersections evaluated currently operate at an acceptable LOS D or better during all three peak periods analyzed, AM, MID, and PM peak. Unsignalized intersections were also evaluated in the traffic analyses. All individual approaches during the AM, MID and PM peak hour scenarios are expected to operate at an acceptable LOS D or better. (See Table 7 for the 2024 Synchro LOS results)

For the 2029 forecasted conditions, the Southeast Regional Planning Model (SERPM) was utilized to determine the annual growth to be used as part of the future conditions analyses. SERPM is a tool that local Metropolitan Planning Organizations, Transportation Planning Agencies, and Transportation Planning Organizations within the Southeast Florida region use to forecast future growth and transportation needs. A conservative annual growth rate of 1.5% was derived from the modified SERPM model and used for the future conditions analyses. In addition to the application of the calculated annual growth rate, site-generated trips from approved and unbuilt developments and redevelopments within the Town of Palm Beach and the City of West Palm Beach have also been included as part of the future conditions analyses. Additional information on how the 1.5% annual growth was calculated and the details of the Town of Palm Beach and City of West Palm Beach approved but unbuilt development projects included as part of the analyses can be found in Section 1.2.4 FORECASTED TRAFFIC OPERATIONS (2029) of this study and **Appendix D**.



Based on the results of the future conditions (2029) traffic analyses, all the signalized intersections evaluated currently operate at an acceptable LOS D or better during all three peak periods analyzed, AM, MID, and PM peak. Unsignalized intersections were also evaluated in the traffic analyses. All individual approaches during the AM, MID and PM peak hour scenarios are expected to operate at an acceptable LOS D or better. (See Table 9 for the 2029 Synchro LOS results)

A 95th percentile queue length analysis was also completed for the 2024 existing scenario for the AM, MID, and PM peak hours at each of the study signalized intersections with turning bays. The 95th percentile queue lengths are an important performance measure in traffic engineering to help determine the required storage length for pocket turn lanes at signalized intersections so that the risk of turning vehicles blocking the adjacent through lanes could be minimized. The results of the 95th percentile queuing analyses indicate that all the existing turn lane bays at the study signalized intersections except for the eastbound left-turn lanes (EBLTL) at the South County Road and Royal Palm Way (intersection #7), Cocoanut Row and Royal Poinciana Way (intersection #15), and Cocoanut Row and Royal Palm Way (intersection #16) intersections, provide adequate capacity to accommodate the existing peak hours vehicular demand during the peak hours analyzed. It should be noted that the results from the Synchro software at those three intersections (7, 15, and 16) show an acceptable level of service (LOS) D or better for the eastbound (EB) approach movement during the three peak periods analyzed; which could indicate that that the existing EBLTL turn lane bays are not restricting the capacity of the EB through lanes, but just making the situation more congested and less desirable. Field observations need to be completed during peak season to confirm the above statement.

### 1.3 South Lake Drive One-Way Analyses

The Town requested to evaluate the potential conversion of South Lake Drive between Royal Palm Way and Peruvian Avenue from a two-way corridor (north-south) to a oneway southbound corridor. This section of the report was updated using the results of Section 1.2.4 FORECASTED TRAFFIC OPERATIONS (2029) of this study. The results of the 2029 future scenario using Synchro Software, revealed that no significant impacts to the adjacent roadway network are expected with the proposed conversion of South Lake Drive to a southbound direction-only corridor. The signalized intersection of Cocoanut Road and Royal Palm Way, where most of these trips will be absorbed, would continue to operate at an overall acceptable LOS D or better during the AM, MIF, and peak hours of the forecasted 2029 traffic conditions. (See Table 11 for additional LOS information).

#### 1.4 Seaview Avenue Traffic Operations/Conditions

The Town requested to complete an evaluation of the traffic conditions experienced along Seaview Avenue during the school's arrival and dismissal periods of the Palm Beach Elementary School and Palm Beach Day Academy.

Based on the results of the traffic operational analyses completed at the un-signalized intersections of S. County Road and Seaview Avenue and Cocoanut Row and Seaview Avenue during the AM, MID, and PM peak periods for the existing 2024 and forecasted 2029 traffic conditions, all individual approach movements are expected to operate at an acceptable LOS D or better.

Based on field review observations during the dismissal period of Palm Beach Elementary School, which begins at 2:05 PM, no traffic concerns were observed during the dismissal operations. The vehicle stacking was contained along Seaview Avenue and did not extend into S. County Road. During the dismissal period observations of Palm Beach Day Academy, which begins at 3:05 PM, longer vehicular queues were observed along Seaview Avenue and continued north on S. County Road to Seabreeze Avenue on the southbound (SB) outermost lane. It should be noted that crossing guards were observed at the intersections with Cocoanut Row and Seaview Avenue, and that the school zone flasher along Seaview Avenue was operating normally during the dismissal period observations of the two schools.

## 1.5 Origin - Destination (OD) Analysis

STREETLIGHT DATA is a technology platform that gathers and reviews data obtained from Connected Vehicle Data (CVD), GPS Data, and smartphone data (among others) on a daily, weekly, or monthly basis. It allows users to select zones or roadways and analyze where travel originates and ends.

STREETLIGHT DATA was evaluated to determine the current traffic patterns to the Town for average weekday and weekend conditions. The analysis divided the Town of Palm Beach into three distinct areas: North District, Central District, and South District; see Figure 2 for a map of the zones. Based on the results of the Origin-Destination Analyses, the following was determined:

A total of 38,400 trips come into the town daily using the five entry points- the 4 causeways and Ocean Boulevard at the south end of the Town. (Please refer to Tables 12, 13, 14, 15, 16, and 17 for the breakdown per entry points, Weekday Data, Weekday AM, Weekday PM, Weekend Daily, Weekend AM, and Weekend PM)



- A total of 11,247 average weekday trips are destined for the major attractors in the area (beaches, commercial areas, and golf courses). These trips can include associated work trips as well as recreational trips.
- A total of 15,806 average weekend day trips are destined to the major attractors in the area.
- On a typical weekday, the North District attracts mainly golf course (2,410) and commercial area (6,831) trips. The Central District attracts mainly commercial area trips (2,190) and beach trips (969). And the South District attracts mainly beach trips (3,741) and golf course trips (313).
- On a typical weekend day, the types of trips each district attracts is similar to those of the weekday, except that the magnitude of trips are different. North District attracts mainly golf course (2,477) and commercial area (6,201) trips. The Central District attracts mainly commercial area trips (1,749) and beach trips (1,543). And the South District attracts mainly beach trips (8,052) and golf course trips (314).
- Based on the results of the STREETLIGHT DATA reviewed, there are about 11,400 trips classified as work trips. This number was confirmed with the *Longitudinal Employer-Household Dynamics* (*LEHD*) program which is part of the Center for Economic Studies at the U.S. Census Bureau. It should be noted that there may be other employment trips such as temporary construction workers, and self-employment trips such as plumbers, landscapers not generally accounted for in the U.S Census data.

# TOWN OF PALM BEACH OD ZONES ANALYSIS





#### 2. Parking Analysis

### Parking Supply & Demand

Two (2) commercial parking districts were studied: the South and the North Commercial Parking Districts. The boundaries for each District can be seen in Figure 3. For each district, two types of parking data were collected: 1) parking accumulation data/studies and 2) parking occupancy data/studies.

The South Commercial Parking District includes 1,188 on-street parking spaces from South Lake Drive to South Ocean Boulevard and from Royal Palm Way to Worth Avenue. The actual study area is smaller because it does not include Royal Palm Way, South Ocean Boulevard, and South Lake Drive or the segment of east-west streets from Cocoanut Row to South Lake Drive. Thes area includes 718 on-street parking spaces. For the entire area, of the 1,188 on-street parking spaces, only about 70% are available to the public for self-parking, with the rest reserved for commercial and passenger loading, valet areas, or reserved for residential permit holders. Ownership patterns and proprietary restrictions on off-street spaces cause a similar reduction of public parking supply on offstreet locations. In total, 1,350 off-street spaces are available in the South District; however, only 895 (66%) are available for public self-parking. In total, restrictions lower the publicly available parking supply by 35% in the South Parking Study District.

In the North Commercial Parking Study District, on-street parking is less impacted by restrictions, where there are 220 on-street parking spaces in total, and only 9 are regulated as commercial and passenger loading zones or taxi stands, leaving 96% available for public self-parking. The off-street parking in the North Study District is more impacted by ownership patterns and proprietary restrictions. Of the 502 off-street spaces, 386 (77%) are publicly available for self-parking. In the North Study District, restrictions lower the publicly available parking supply by 17%.







Figure 3 North & South Commercial Parking Study Districts (Town's Zoning Map Excerpt)

The following is a summary of the evaluated Parking Supply and Demand.

- There is adequate supply for both commercial parking study districts when considered on a district-wide basis; however, particularly within the South Commercial Parking Study District, there are localized shortages caused by the combined effects of street circulation patterns, destination locations, the distribution of parking within the district, and lack of parking information to visitors.
- The parking supply includes the spaces allocated to valet parking. Valet parking
  provides an alternative way to access parking and can reduce traffic caused by cars
  circulating to find parking. For the visitor, valet parking is a convenience. For the
  destination business owners, valet operations are good business by providing a
  desired service to their patrons and assurance that patrons don't balk due to the
  apparent lack of convenient parking. The valet operations do not increase the supply
  of parking in the commercial districts of the Town because they use parking areas that
  are generally within the respective commercial districts.

- On weekends, Worth Avenue on-street parking is full, and off-street parking is near capacity west of South County Road; however, there is adequate available supply elsewhere within the district.
- On weekdays there is a localized lack of capacity near Brazilian Avenue west of South County Road.
- Supply and demand are misaligned either locationally, by ownership, or by management.
- Additional capacity is not required for the entirety of each district. Management strategies that better utilize available parking areas can alleviate parking issues.
- Community expectations for walk distance are very short, as evidenced by the large number of valet operations. A well-managed valet is a good choice for management at high-priced establishments.

## Parking Policy: Zoning Code, Redevelopment, And Legacy<sup>1</sup> Buildings

Like other exclusive communities, the Town's zoning requirements with regard to parking are more conservative, requiring more parking spaces than is typical to assure the highest level of convenience for its residents and viable service for its businesses. This also mitigates some of the effects of historic and other older buildings that continue to operate as an important part of the commercial districts with legacy parking supplies dating back to when they were built. The following characteristics were noted:

- The Town's zoning code parking requirements are generally enforceable, using units of development such as floor area or bedroom counts, and are not dependent on person counts, which are used in other places and are difficult to administer.
- Parking incentives are not a focus in the Town's zoning code for new development, as the parking requirements support higher increased parking supply to respond to community needs.

### Valet Parking Analysis

Valet parking queue data was collected in one-minute intervals and maximum queues were documented during the weekday peak period on Monday, April 17<sup>th</sup> and Friday, April 21<sup>st</sup> between 5:00 to 8:00 P.M. and during the peak period on Saturday, April 15<sup>th</sup> between 5:00 to 9:00 P.M. at eighteen (18) restaurant locations within the commercial areas of the Town. The maximum observed queues and the total number of vehicles parked during these periods were documented.

<sup>&</sup>lt;sup>1</sup> The term is to refer to buildings that are NOT subject to the current zoning code; therefore, grandfathered buildings with regard to parking.



Based on the results of the observations, restaurant locations #1 Meat Market, #2 Echo Palm Beach, #5 Trevini, #13 Pizza Al Fresco, #14 Bice, #15 Club Colette experienced long queues and existing Town records documented in **Appendix G** do not provide sufficient information to validate the existing approved valet operations for the majority of the eighteen (18) restaurants assigned.

The Town of Palm Beach Police Department monitors the approved valet parking operations at the authorized commercial locations throughout the Town. The approved valet operations are monitored daily by the watch commander of the Town of Palm Beach Police Department as part of their valet parking enforcement strategies to ensure that there are no violations. The Town of Palm Beach Police Department understands the use of private parking lots in the valet parking operations for authorized commercial locations and monitors the number of approved spaces in these private parking lots. If code compliance issues are observed, the Town of Palm Beach Police Department will issue a warning. If the code compliance issues are not resolved after the warning is issued, the Courcell.

The following is a summary of the **<u>RECOMMENDATIONS</u>** for each of the previously identified scope items.

### 1. Traffic Analyses

### 1.1 Trip Generation Comparison

There are no recommendations from this section of the study as this was a request to provide a general idea of the number of potential trips that may be generated by different land uses and different intensities.



## 1.2 Intersection Capacity Analysis

Based on the results of the traffic operation analyses completed utilizing Synchro Software that includes the signal timing modifications provided by Town staff, the Town should consider the following:

- Complete annual evaluations of the Adaptive Traffic Control System (ATCS) that provides the Level of Service (LOS) and Average Delay – Seconds/Vehicle as well as other traffic signal performance measures from the Econolite Centracs SPM module. As the ATCS' objective is to provide optimized signal timing plans based on real-time traffic demands and Synchro Software does not model proprietary algorithms from the Econolite Centracs Edaptive Signal Control System.
- Continue to monitor queue lengths at all signalized intersections to make sure adequate capacity is provided to meet the travel demand.
- Complete a corridor study of Sunset Avenue between Bradley Place and North County Road. This study should evaluate the corridor's traffic operations after the conversion from two-way to one-way operations. It should also review the traffic operations at the existing Publix driveway connections to Sunset Avenue. Aerial drone technology should be utilized to capture actual field conditions during peak hours.
- Complete a traffic signal warrant study at the Sunset Avenue and Bradley Place intersection per MUTCD criteria. The study should be completed if Sunset Avenue reverts to a two-way corridor between Bradley Place and North County Road.
- Coordinate with FDOT and the United States Coast Guard to make the reduced peak period drawbridge openings permanent. This should include modifications to the mid-afternoon peak hour between 3:00 and 4:00 p.m.
- Increase the number of road segments to evaluate as part of the Town's Annual Roadway Level of Service Evaluation. This should include key local road segments in addition to the 14 currently evaluated.
- Complete a field queueing evaluation during peak season at the following road segments:
  - o Cocoanut Row- Royal Palm Way south to Chilean Avenue
  - $\circ$  Cocoanut Row- Royal Palm Way north to Seabreeze Avenue
  - o Bradley Place/N. Lake Way- Royal Poinciana north to Wells Road
  - o South County Road- Royal Poinciana to Oleander Avenue

Aerial drone technology should be utilized to capture actual field conditions during peak hours.



#### 1.3 South Lake Drive One-Way Analysis

The updated results of the 2029 future scenario using Synchro Software, revealed that no significant impacts to the adjacent roadway network are expected with the proposed conversion of South Lake Drive to a southbound direction-only corridor. The signalized intersection of Cocoanut Road and Royal Palm Way, where most of these trips will be absorbed, would continue to operate at an overall acceptable LOS D or better for the forecasted 2029 traffic conditions. (See Table 11 for the individual intersection Synchro results). Should the Town decide to move forward with this proposed traffic pattern along South Lake Drive, local service agencies such as fire, police, and emergency medical services personnel, need to be involved early on during this process. The necessary roadway signage along with pavement markings will need to be installed along the corridor and at all approaching movements intersecting the corridor.

#### 1.4 Seaview Avenue Traffic Operations/Conditions

Based on the field review observations, Palm Beach Day Academy experiences longer vehicular queues during the school's dismissal period along Seaview Avenue and then continues north on S. County Road to Seaspray Avenue on the southbound (SB) outermost lane of S. County Road, while the innermost southbound travel lane continues to flow. The Town may consider the following to improve the vehicular queue:

 Explore the possibility of restricting on-street parking, not related to the school's pick-up operations, along Seaview Avenue during the school's dismissal period, and allow these on-street parking spaces to serve as additional staging areas for students' pick-up.

### 1.5 Origin Destination Analysis

There are no recommendations from this section of the study as this was a request to provide the answers that have been included under the findings section.

#### 2. Parking Analysis

The Corradino Group, Inc. is familiar with the Town's (6) Point Parking Program, that was developed and is being further refined. A number of our proposed parking recommendations align with the 6 key points of the program.



The key elements of the (6) Point Parking Program, are identified as follows:

- Part 1: Expansion of paid parking in the business district, from Barton Avenue to Hammon Avenue
- Part 2: Palm Beach Resident Parking Decals.
- Part 3: Valet Parking on Worth Avenue and South County Road.
- Part 4: Signage to direct drivers to Parking Opportunities.
- Part 5: Free 30-minute Parking Spaces for added Convenience.
- Part 6: Long-term Goal of Building a Parking Facility in the Business District.

Based on the results of the completed parking evaluations, the Town should consider the following parking recommendations.

## Parking Supply

 At this time, we do not recommend additional capacity to be built until management strategies are implemented to more efficiently utilize the existing the existing parking supply in the South Commercial Parking Study District or in the North Commercial Parking Study District.

## Parking Management

- Implementation of Dynamic Parking Wayfinding via smartphone applications for residents and visitors parking. Dynamic wayfinding means that the application keeps track of the nearest location of a parking space in real time and can guide the driver along the quickest path to the space. The same application may also be used to reserve a space ahead of time. Without the need for physically posted signage, the application can also manage demand by varying the cost of spaces as well as the parking duration rules, and even can vary the price based on parking duration, such as discounting the first hour or half hour to incentivize faster turnover, especially at on-street locations where higher turnover is desired.
- Adoption of an app-based paid parking system applicable to all public parking spaces throughout both business districts. The Town should also pursue agreements to integrate large parking facilities into the program. The app-based system should include the following functionalities:
  - Dynamic tracking of parking supply, occupancy, and time until empty.
  - Establish maximum parking durations that can be adjusted to manage utilization within the districts.
  - Variable pricing to manage demand.



- Variable pricing to manage turnover, such as discounted initial parking rates that scale up the longer a vehicle remains.
- Easy and convenient touch-free payments for the consumer, with notifications when time is getting low.
- Ability to integrate a residential tag program by permitting long term and overnight parking for residents and their guests, but not other visitors.
- Ability to implement an employee program that permits long-term day parking for employees.
- Revenue tracking for the Town.
- Enforcement notifications are used to identify vehicles that remain in a space over time.
- Provide management data to the Town monthly to support the Town's ongoing parking management and identify localized and temporary shortages.

#### Parking Policy:

- A review of the current Town's zoning code towards the following changes:
  - The zoning code should reinforce shared parking as a way to better utilize empty spaces within the walksheds of destinations. Along with new commercial or mixed-use development applications and approvals, public private partnerships for shared parking capacity can create a long-term program to provide additional parking supply.
  - Legacy buildings should be identified and listed along with their as-built parking supply and the shortfall compared to current regulations, and data should be tracked according to the uses that occupy these buildings. Legacy building parking needs should be considered for inclusion into the app-based parking management system to provide for their needs in a managed way.
  - If intercept parking with micro-transit is chosen as a solution at a future time, then code requirements may include in-lieu impact fees that new development may pay instead of providing on-site parking. Intercept parking is the location of a major parking facility that is close to the access point of the district and allows visitors to park without entering the district by car. This reduces the amount of traffic caused by circulating to find a parking space and provides for a more enjoyable pedestrian environment. It also maintains the historic character of the commercial districts by supporting off-site alternatives to surface parking, and expensive



structured parking diminishes the ability for new developments to be designed with compatible architectural character.

#### Valet Parking Analysis

Based on the valet parking queuing operational analysis results and review of the valet parking schematic diagrams on file at the Town, the Town should consider the following recommendations which are provided in short-term, mid-term and long-term efforts.

- Short-Term:
  - Develop a valet parking operational plan methodology (policy/code update). The valet parking methodology should be requested from the applicant/owner and should include detailed information on the proposed valet routing plan, anticipated queueing, pick-up/drop-off operations, including valet stand location and the number of valet operators, as well as specific details regarding the use of off-site surface parking lots or parking garages in the valet parking operations and the number of parking spaces allocated and/or necessary for the same.
  - Create a GIS layer of existing approved valet parking locations within the Town. Populate the GIS layer with parking requirements for each commercial location, assigned parking spaces/lots, etc. For example, several restaurant owners use the Apollo Parking lot for valet operations. There should be a parking inventory of how many parking spaces in surface parking lots or garages are already accounted for in these approved valet operations.
  - o Continue to review each valet parking permits/agreement annually and make any necessary modifications where necessary. The Town of Palm Beach Police Department will also reevaluate the internal valet parking policies and processes and make any necessary modifications to ensure a comprehensive code enforcement process is implemented. Use aerial drone technology periodically to monitor and document valet operations during peak periods to ensure the valet plan on file as part of the permit is working as intended.



- Mid-Term:
  - Request that existing restaurant owners provide the valet parking operational plan per the Town's approved methodology.
- Long-Term:
  - Create an overall valet parking circulation master plan per District that can be reviewed and updated by Town staff as necessary.

# **1. TRAFFIC ANALYSES**

# **1.1 TRIP GENERATION COMPARISON**

Trip generation calculations for four (4) different land uses were completed using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11<sup>th</sup> edition.

The trip generation comparison was determined using ITE Land Use Codes (LUC) 932 High Turnover (Sit-Down) Restaurant, LUC 822 (Strip Retail Plaza less than 40,000 square feet of gross leasable area (GLA), LUC 821 Shopping Plaza between 40,000 and 150,000 square feet of GLA, and LUC 710 General Office Building.

The four (4) LUCs and size of potential developments for the trip generation comparison of this study section were agreed and confirmed with Town staff and shown in Table 3.

LAND USES AND SIZES										
ITE Land Use Code (LUC)	Description	Size								
932	High Turnover (Sit-Down) Restaurant	8,000 sf.								
822	Strip Retail Plaza (<40K)	30,000 sf.								
821	Shopping Plaza (40-150k)	80,000 sf.								
710	General Office Building	100,000 sf.								

#### Table 3 ITE Land Uses and Descriptions

The comparison of AM peak, PM peak, and daily trips are shown in Tables 4, 5, and 6. Pass-by-capture trips are expected and determined based on rates in the ITE's Trip Generation Handbook, 3<sup>rd</sup> Edition. A pass-by rate of 40% was utilized for LUC 821 (Shopping Plaza) for the PM peak hour generator.

According to ITE's Trip Generation Handbook, 3<sup>rd</sup> Edition, pass-by trips are also expected for LUC 932 (High Turnover Sit-Down Restaurant) during the PM peak hour; however, since few people "stop by" at restaurants on their way to or from another location in the Town, this pass-by percentage was not used in this section of the study, as most trips to restaurants on the island would be single purpose only.

It should also be noted that pass-by trips should also be expected for LUC 822 (Strip Retail Plaza) during the PM peak hour; however, since ITE does not provide pass-by rates for this use, then no pass-by rate credits were applied for this section of the report. Therefore, the PM peak trips shown in Table 5 for LUC 822 (Strip Retail Plaza) are higher than expected.



	AM PEAK HOUR TRIP GENERATION COMPARISION												
ITE LUC	Description	Unit	Total Units	l Directional s Distribution %		Total Trips			Pass-by	y Rate	Net New Trips		
				In	Out	In	Out	Total	Percent	Trips	In	Out	Total
932	High Turnover (Sit-Down) Restaurant	1000 sf	8.0	55%	45%	42	35	77	0%	0	42	35	77
822	Strip Retail Plaza <40k	1000 sf	30.0	60%	40%	42	29	71	0%	0	42	29	71
821	Shopping Plaza 40 - 150k	1000 sf	80.0	62%	38%	175	107	282	0%	0	175	107	282
710	General Office Building	1000 sf	100.0	88%	12%	147	20	167	0%	0	147	20	167
LUC 932: /	AM Peak Hour Trip Generation = 8.0 x 9.5	57 (Avg. Rate)	ITE 11	th Edition page	e 674								
LUC 822: /	AM Peak Hour Trip Generation = 30 x 2.3	6 (Avg. Rate)	ITE 11	th Edition page	e 230								
LUC 821: /	AM Peak Hour Trip Generation = 80 x 3.5	3 (Avg. Rate)	ITE 11	th Edition page	e 200								
LUC 710: 1	Ln(AM Peak Hour Trip Generation) = 0.86	5 Ln (100) + 1.1	16 (Fitted Ci	urve) ITE 1	1th Edition pa	age 710							

#### Table 4 AM Peak Hour Peak Generation Comparision

#### Table 5 PM Peak Hour Peak Generation Comparision

	PM PEAK HOUR TRIP GENERATION COMPARISION												
ITE LUC	Description	Unit	Total Units	Directional Distribution %		Directional Total Trips Distribution %		Pass-by Rate		Net New Trips			
				In	Out	In	Out	Total	Percent	Trips	ln	Out	Total
932	High Turnover (Sit-Down) Restaurant	1000 sf	8.0	61%	39%	44	28	72	0%*	0	44	28	72
822	Strip Retail Plaza <40k	1000 sf	30.0	50%	50%	99	99	198	0%	0	99	99	198
821	Shopping Plaza 40 - 150k	1000 sf	80.0	48%	52%	352	380	732	40%	293	211	228	439
710	General Office Building	1000 sf	100.0	17%	83%	28	138	166	0%	0	28	138	166
LUC 932:	PM Peak Hour Trip Generation = 8.0 x 9.0	05 (Avg. Rate)	ITE 11	th Edition pag	e 675								•
LUC 822:	PM Peak Hour Trip Generation = 30 x 6.5	9 (Avg. Rate)	ITE 11	th Edition pag	e 231								
LUC 821:	PM Peak Hour Trip Generation = 7.67(80)	)+118.86 (Fitter	d Curve) IT	E 11th Edition	n page 201								
LUC 710:	Ln(PM Peak Hour Trip Generation) = 0.83	3 Ln (100) + 1.2	29 (Fitted Cu	urve) ITE 11	h Edition pag	je 711							
* Pass-by Ra	ate for ITE LUC 932 was not applied, as m	ost trips to resta	urants on th	e island woul	d be single p	urpose.							

#### Table 6 Daily Trip Generation Comparision

	DAILY TRIP GENERATION COMPARISION														
ITE LUC	Description	Unit	Total Units	Directional Distribution %		Directional Distribution %		onal Total Trips		;	Pass-b	y Rate	Net New Trips		
				In	Out	ln	Out	Total	Percent	Trips	ln	Out	Total		
932	High Turnover (Sit-Down) Restaurant	1000 sf	8.0	50%	50%	429	429	858	0%	0	429	429	858		
822	Strip Retail Plaza <40k	1000 sf	30.0	50%	50%	817	817	1634	0%	0	817	817	1634		
821	Shopping Plaza 40 - 150k	1000 sf	80.0	50%	50%	3785	3785	7570	0%	0	3,785	3,785	7,570		
710	General Office Building	1000 sf	100.0	50%	50%	580	580	1160	0%	0	580	580	1160		
LUC 932:	PM Peak Hour Trip Generation = 8.0 x 10	7.20 (Avg. Rate	e) ITE 1	1th Edition page	ge 673										
LUC 822:	PM Peak Hour Trip Generation = 30 x 54.	45 (Avg. Rate)	ITE 1	1th Edition page	ge 229										
LUC 821:	PM Peak Hour Trip Generation = 76.96(8	0)+1412.79 (Fi	tted Curve)	ITE 11th Ed	ition page 19	9									
LUC 710:	Ln(PM Peak Hour Trip Generation) = 0.87	7 Ln (100) + 3.0	05 (Fitted Cu	urve) ITE 11	th Edition pag	ge 709									



The relevant pages from the ITE Trip Generation Manual are included in Appendix A

# **1.2 INTERSECTION CAPACITY ANALYSES**

## **1.2.1 EXISTING CONDITIONS – ROADWAY CHARACTERISTICS**

South County Road / North County Road: within the study's limits, it is a four-lane, two-way, undivided minor collector. It runs in the north/south direction, and it is maintained by the Town. The posted speed limit is 25 MPH. This roadway facility provides sidewalks on both sides of the road. There is on-street parking on both sides of the road from Seaspray Avenue south to Chilean Avenue and along the east side of the road from Chilean Avenue to Worth Avenue. There are no dedicated bicycle facilities along the limits of the study.

Cocoanut Row: within the limits of the study, it is a three-lane (2-northbound lanes, 1-southbound lane), two-way undivided local roadway from Royal Poinciana Way south to Pendleton Avenue and a two-lane, two-way from Pendleton Avenue south to Worth Avenue. It runs in the north/south direction, and it is maintained by the Town. The posted speed limit is 25 MPH. This roadway facility provides sidewalks on both sides of the road; except from Pendleton Avenue south to Seabreeze Avenue; which provides sidewalk on the east side only. There is on-street parking on both sides of the road south of Royal Palm Way to Worth Avenue. There are no dedicated bicycle facilities along the limits of the study.

South Lake Drive: within the study's limits, it is a two-lane, two-way undivided local roadway. It runs in the north/south direction, and it is maintained by the Town. The posted speed limit is 25 MPH. This roadway facility provides sidewalks and on-street parking on both sides of the road. There are no dedicated bicycle facilities along the limits of the study.

Bradley Place: within the study's limits, it is a two-lane, two-way, undivided local roadway. It runs in the north/south direction, and it is maintained by the Town. The posted speed limit is 25 MPH. This roadway facility provides sidewalks on both sides of the road. There is on-street parking on both sides of the road from Atlantic Avenue south to Park Avenue and along the east side of the road from Park Avenue to Royal Poinciana Way. There are no dedicated bicycle facilities along the limits of the study.

Royal Poinciana Way: within the study's limits, it is a four-lane, two-way divided major collector. It runs in the east/west direction, and it is maintained by the Town. The posted speed limit is 30 MPH. This roadway facility provides sidewalks on the north side of the road only and on-street parking on both sides of the road. There are no dedicated bicycle facilities along the limits of the study.



Royal Palm Way: within the study's limits, it is a four-lane, two-way divided minor arterial. It runs in the east/west direction, and it is maintained by the Town. The posted speed limit is 30 MPH. This roadway facility provides sidewalks on both sides of the road. There are no dedicated bicycle facilities or on-street parking along the study's limits.

Worth Avenue, Chilean Avenue: within the study's limits, these are two-lane, one-way, undivided local roadways. These run in the westbound direction, and they are maintained by the Town. There is no posted speed limit along these corridor segments. These roadway facilities provide sidewalks and on-street parking on both sides of the road. There are no dedicated bicycle facilities along the limits of the study.

Peruvian Avenue, Australian Avenue: within the study's limits, these are two-lane, one-way, undivided local roadways. These run in the eastbound direction, and they are maintained by the Town. There is no posted speed limit along these corridor segments. These roadway facilities provide sidewalks and on-street parking on both sides of the road. There are no dedicated bicycle facilities along the limits of the study.

Brazilian Avenue, Sunset Avenue, and Sunrise Avenue: within the study's limits, these are twolane, two-way, undivided local roadways. These run in the east/west direction, and they are maintained by the Town. There is no posted speed limit along the corridor segments. These roadway facilities provide sidewalks and on-street parking on both sides of the road. There are no dedicated bicycle facilities along the limits of the study.

South Ocean Boulevard / SR A1A: within the study's limits, it is a two-lane, two-way, undivided major collector. It runs in the north/south direction, and it is maintained by the Florida Department of Transportation. The posted speed limit is 30 MPH. This roadway facility does not provide sidewalk, on-street parking, or dedicated bicycle facilities.

Southern Boulevard / US 98: within the study's limits, this is a two-lane, two-way, undivided minor arterial. It runs in the east/west direction, and it is maintained by the Florida Department of Transportation (FDOT). The posted speed limit is 25 MPH. This roadway facility does not provide on-street parking or dedicated bicycle facilities, but it does provide sidewalk on both sides of the road.



## **1.2.2 DATA COLLECTION**

Seventy-two hours of bidirectional volumes were collected by the Town's Traffic Engineer consultant from Tuesday, March 12th, 2024, to Thursday, March 14th, 2024, along 14 different corridor segments within the Town. They were used by the Town's Traffic Engineer consultant to update The Town's Annual Roadway Level of Service Evaluation. Video cameras were also placed within this time period to collect turning movement counts at the twenty-four (24) study intersections. The traffic data collected was shared with The Corradino Group. Our review of the collected corridor traffic data determined that the AM, MID, and PM peak periods were experienced on Wednesday, March 13th, 2024, between 7:30 AM to 5:30 PM. The 10 hours of turning movement counts (TMCs) from March 13th, 2024, were processed to identify the morning, midday, and afternoon peak hours of 22 of the 24 intersections studied. Additional turning movement counts were collected at the unsignalized intersections of County Road and Seaview Avenue (intersection #8), and Cocoanut Row and Seaview Avenue (intersection #24) on Tuesday, April 2nd, 2024, due to Palm Beach Day Academy' Spring break session observed during the March 2024 traffic data collection. TMCs were evaluated for the AM, MID, and PM peak hours at the following twenty-four (24) intersections' locations:

- 1. County Road and Golfview Road (Signalized)
- 2. County Road and Worth Avenue (Signalized)
- 3. County Road and Peruvian Avenue (Signalized)
- 4. County Road and Chilean Avenue (Unsignalized)
- 5. County Road and Australian Avenue (Unsignalized)
- 6. County Road and Brazilian Avenue (Unsignalized)
- 7. County Road and Royal Palm Way (Signalized)
- 8. County Road and Seaview Avenue (Unsignalized)
- 9. County Road and Royal Poinciana Way (Signalized)
- 10. County Road and Breakers Row (Signalized)
- 11. County Road and Sunset Avenue (Signalized)
- 12. County Road and Sunrise Avenue (Signalized)
- 13. Bradley Place and Avenue (Unsignalized)
- 14. Bradley Place and Sunrise Avenue (Signalized)
- 15. Cocoanut Row and Royal Poinciana Way (Signalized)
- 16. Cocoanut Row and Royal Palm Way (Signalized)
- 17. Ocean Boulevard and Southern Boulevard (Roundabout)
- 18. Lake Drive and Royal Palm Way (Unsignalized)
- 19. Lake Drive and Brazilian Avenue (Unsignalized)
- 20. Lake Drive and Australian Avenue (Unsignalized)
- 21. Lake Drive and Chilean Avenue (Unsignalized)



- 22. Lake Drive and Peruvian Avenue (Unsignalized)
- 23. Cocoanut Row and Worth Avenue (Unsignalized)
- 24. Cocoanut Row and Seaview Avenue (Unsignalized)

Figures 4 and 5 show the study intersections' locations.





**Figure 4 Study Intersections Locations** 



**Figure 5 Study Intersection Location** 

### 1.2.3 TRAFFIC OPERATIONS (2024 Conditions)

The FDOT Peak Season Factor Category Report (2023), the most current published report, revealed a PSCF of 0.99 for the study area during the week when most of the traffic data was collected. Therefore, a PSCF conservative value of 1.00 was applied to the turning movement counts collected in March 2024. So, no reduction in the collected trips was accounted for in the analyses completed as part of this study. The turning movement counts that were collected during the first week of April were seasonally adjusted with a PSCF of 1.03, based on the FDOT Peak Season Factor Category Report (2023) shown for that week. The FDOT Peak Season Factor Category Report (2023), the collected peak hour turning movement counts, the intersections volume sheets, and the 2024 Town's Annual Roadway Level of Service Evaluation completed by the Town's Traffic Engineer Consultant are included in **Appendix B**.

Based on recent conversations with Town staff, the Town has been working on deploying Adaptive Traffic Control Systems (ATCS) at all signalized intersections within the Town's jurisdiction since the last quarter of 2023. The ATCS aims to provide optimized signal timing plans based on real-time traffic demands. This Centracs Edaptive module offers deep analytical capabilities through Econolite's Centracs SPM (Signal Performance Measures) and Pattern Optimizer modules, allowing users to ensure maximum performance of their signal control system quickly and easily. With this technology, the Town can run its own intersections' traffic operational reports and obtain "real-time" signal delay and other key metrics from each signalized intersection. The study intersections were modeled using Synchro 12 Signal Timing and Analysis Software to establish a baseline for the new signal timing modifications and corridors' coordination, as provided by Town staff. Synchro applies methodologies outlined in the Highway Capacity Manual (HCM). Traffic Operational conditions are defined in terms of Level of Service (LOS). These service levels range from A (negligible delays) to F (forced flow/ jammed conditions) and are



measured based on approach delay as defined by the HCM. It should be noted that there are some limitations with utilizing Synchro software, as this software does not model the proprietary algorithms from the Econolite Centracs Edaptive Signal Control System, and that the results of the signalized intersections operational analyses presented in this traffic study reflect the actuated-coordinated signal timings at most of the signalized intersections within the Town's jurisdiction. Historically, the Town's traffic signals were uncoordinated and semi-actuated.

Table 7 shows the existing level of service and delay as modeled by Synchro for each study intersection during the weekday AM, MID, and PM peak hours. As shown in Table 7, all signalized intersections currently (2024 scenario analyzed) operate at an acceptable LOS D or better during the AM, MID, and PM peak scenarios. The current signal timing sheets and Synchro output reports for the existing conditions are included in **Appendix C**.


## Table 7 2024 Existing Level of Service Results

				AM PEAK	HOUR	MID PEA	k hour	PM PEAK	HOUR
N⁰	INTERSECTION	CONTROL TYPE	MOVEMENT	DELAY (s/v)	LOS	DELAY (s/v)	LOS	DELAY (s/v)	LOS
			EB	31.4	С	29.1	С	31.6	С
			WB	32.4	C	31.2	C	33.3	С
1	S County Road &	Signalized	NB	1.9	A	2.7	A	1.9	A
	Golfview Rd	g	SB	0.9	A	1.8	А	1.7	A
			OVERALL	4.9	А	6	Α	5	Α
			FB			Ũ		Ũ	
			WB	24.2	ſ	19.9	B	20.9	C
2	S County Rd & Worth	Signalized	NB	3.4	A	4.9	A	4.1	A
-	Ave	orginalizou	SB	3.3	A	6.3	Α	5.7	A
			OVERALL	8.1	Α	9,2	Α	9.4	Α
			FB	24.9	C	20.9	C C	21.5	C
			WB	21.7	0	20.7	0	21.0	0
3	S County Rd &	Signalized	NB	3	А	4.9	А	4.9	А
0	Peruvian Ave	olghail200	SB	7.8	A	12	В	10.6	B
			OVERALL	9.9	А	12.4	В	11.6	В
			FB					1110	
			WB	9.8	Δ	10.7	B	10.22	B
4	S County Rd & Chilean	Unsignalized	NB	0	-	0	-	0	-
•	Ave	onoignail20u	SB	0	-	0	-	0	-
			OVERALL					-	
			EB	10.8	В	13	В	12.3	В
			WB			-		-	
5	S County Rd &	Unsignalized	NB	0		0	-	0	
	Australian Ave	5	SB	0	-	0	-	0	-
			OVERALL						
			EB	12	В	14.2	В	12.9	В
			WB	9.5	A	10.3	В	10	В
6	S County Rd &	Unsignalized	NB	2.3	-	3	-	2.2	-
	Brazilian Ave	0	SB	0.2	-	0.1	-	0.1	-
			OVERALL						
			EB	17.8	В	22.6	С	18.8	В
			WB	42.4	D	34.5	С	42.9	D
7	S County Rd & Royal	Signalized	NB	15	В	17.3	В	15.9	В
	Pallii Way		SB	30.1	С	29.1	С	28.7	С
			OVERALL	23.6	С	24.4	С	24.1	С
			EB						
	C County Dd 9		WB	11.9	В	12.6	В	11.4	В
8	S County Ru &	Unsignalized	NB	0.5	-	0.3	-	2	-
	Seaview Ave		SB	0	-	0	-	0	-
			OVERALL						
			EB	34.1	С	32.7	С	42.7	D
	N County Pd & Poyal		WB	39.7	D	41.9	D	50.4	D
9	Poinciana Way	Signalized	NB	16.4	В	21.5	С	16.6	В
	i onciaria way		SB	15.6	В	16.2	В	35.2	D
			OVERALL	22.5	С	22.9	С	32.5	С
			EB						
	S County Dd 9		WB	29.3	С	29.5	С	30	С
10	S COUILLY RU &	Signalized	NB	9	А	5.3	А	4.6	А
	DIEdkers NUW		SB	8.8	А	5.8	A	5.3	А
			OVERALL	13.2	В	6.8	Α	6.9	Α
			EB	61	E	38.3	D	81.4	F
	N County Dd & Support		WB	34.3	С	34.5	С	41.4	D
11		Signalized	NB	2.6	А	2.1	А	2.2	А
	Ave		SB	4.4	А	2.3	А	1.9	А
			OVERALL	8.3	Α	5.9	Α	12.2	В
			EB	34.7	С	46.3	D	50.1	D
			WB	29.2	С	28.9	С	36.8	D
12	N County Ra & Sunrise	Signalized	NB	9	А	14.2	В	9	А
	Ave		SB	7.4	А	10	В	9.5	А
			OVERALL	11.8	В	17.7	В	15.7	В



			ED	10	D	14.0	P	14.7	D
			ED	12	D	14.Z	D	14.7	Б
40	Bradley PI & Sunset		WB						
13	Ave	Unsignalized	NB	0.2	-	0.5	-	0.6	-
			SB	0.2	-	0.1	-	0.1	-
			OVERALL						
			EB						
	Bradlov DL & Supriso		WB	29.9	С	41.5	D	41.4	D
14	Diduley Pl & Sullise	Signalized	NB	7.2	A	4.3	A	10.5	В
	Ave	Ŭ	SB	3.7	A	7.3	A	7.7	A
			OVERALL	9.1	Α	15.6	В	16.9	В
			FB	46.5	D	32.8	C	38.7	D
			WP	10.0	B	22.0	C C	26.0	C C
15	Cocoanut Row & Royal	Signalized	ND	17.4	D C	22.1	C	20.7	C C
15	Poinciana Way	Signalizeu		20.2	C	20.7		23.9	C C
				21		17.3	D C	27.0	C C
			OVERALL	34.4	D	24.2	C	29.9	ل د
			EB	14.2	В	13.2	В	22.4	С
	Cocoanut Pow & Poval		WB	22.6	С	22.1	С	21.5	С
16	Dalm Way	Signalized	NB	42.3	D	35.9	D	51.2	D
	i aini way		SB	40.9	D	39.4	D	39	D
			OVERALL	21.3	С	22.9	С	28.4	С
			EB	8.5	A	6.1	A	3.5	A
			WB	1.9	A	2.2	A	3.6	A
17	S Ocean Blvd &	Roundabout	NB	3	А	3.4	А	4	А
	Southern Blvd		SB			5			
			OVERALI						
			FR	0	-	0		0	-
			WD	0.5		0.9		0.4	
10	S Lake Dr & Royal	Unsignalized	ND	17.1	-	14	- -	12.0	- D
10	Palm Way	Unsignalized	NB	17.1	C	10	C	13.0	D
				7.0	٥	0.1	â	7 5	
			ED	7.3	A	8.1	A	7.5	A
10	S Lake Dr & Brazilian	Unsignalized	WB	7.6	A	8.2	Â	7.8	A
19	Ave	Unsignalized	NB	7.3	A	1.1	A	7.6	A
			SB	8.9	A	11	В	8.3	A
			OVERALL						
			EB	-	-	-	-	-	-
	S Lake Dr & Australian		WB						
20	Ave	Unsignalized	NB	9.3	A	9.6	A	9.3	A
	7.00		SB	-	-	-	-	-	-
			OVERALL						
			EB						
	S Lako Dr. & Chiloan		WB	7.2	A	7.3	A	7.2	A
21	S Lake DI & Chiledh	Unsignalized	NB	7.3	А	7.4	A	7.4	A
	Ave	-	SB	7.8	A	8.1	А	7.7	A
			OVERALL		·	·	·	·	
			EB						
			WB						
22	S Lake Dr & Peruvian	Unsignalized	NB	71	Α	7.2	Α	71	Δ
22	Ave	onsignalized	SB	81	Α	83	A	7.8	Δ
			OVERALI	0.11		0.0	~	110	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
			ER						
				C		0		0	
22	Cocoanut Row & Worth	Uncignalized	WB	U	-	U	-	U	-
23	Ave	Unsignalized	INB CD	0 5	٨	0 4	٨	0 4	٨
			ONE DATA OR	0.0	A	0.0	A	0.0	A
			UVERALL	10	P	10.0		14.0	P
			EB	10	В	13.2	В	14.8	В
	Cocoanut Row &		WB	19.1	C	17.9	C	23.5	Ċ
24	Seaview Ave	Unsignalized	NB	0	-	0	-	0	-
			SB	0	-	0	-	0	
			OVERALL						

Source: Highway Capacity Manual & Synchro Software (s/v) = Average Delay measured in seconds/vehicle

Results shown on this table for the signalized intersections include timing modifications provided by Town staff and are limited to Synchro Software capabilities At unsignalized intersections, the LOS is only documented for the stop-controlled movement

# 1.2.4 FORECASTED TRAFFIC OPERATIONS (2029 Forecasted Conditions)

For this section of the study, the Southeast Regional Planning Model (SERPM) was utilized. The Southeast Regional Planning Model (SERPM) is a tool that local Metropolitan Planning Organizations, Transportation Planning Agencies, and Transportation Planning Organizations within the Southeast Florida region use to forecast future growth and transportation needs. The SERPM is used to support the development of Long-Range Transportation Plans, Regional Transportation Plans, and other regional planning efforts.

The Current adopted version of the model is the **2015/2045 SERPM 8.541**. The model base year is 2015, and its current forecast is the year 2045. Based on the results of the Town's model outputs, an annual growth rate of 0.92% was obtained. The Corradino Group was asked by Town staff to revisit the growth rate and to take into consideration recently approved developments from the City of West Palm Beach that may have a significant impact on the Town's transportation roadway network. Based on the revised output models for the Town's Transportation Analysis Zone (TAZ) that include the City of West Palm Beach's recently approved developments, an annual growth rate of 1.28% was calculated. For this section of the study, a conservative annual growth rate of 1.5% was used to account for additional uncertainty factors. A detailed explanation of how the growth rate was calculated utilizing the SERPM model with the addition of the committed City of West Palm Beach trips is included in **Appendix D**.

The forecasted traffic volumes considered in the operational analysis for the year 2029 are the sum of the seasonally adjusted traffic counts, an additional amount of traffic annually for potential area-wide growth (1.5% annual growth rate), and the committed trips from approved and unbuilt sites within the Town and the City of West Palm Beach.

# 1.2.4.1 Town of Palm Beach (Committed Development Trips)

The following is a list of the approved development projects that were included in the 2029 future analysis scenario. The committed trips were obtained from available and approved traffic impact studies from the following sites' addresses:

- 1. 363 Cocoanut Road. (Vineta Hotel)
- 2. 125 Worth Avenue. (Proposed Modifications)
- 3. 165 Bradley Place. (Alef Preschool)
- 4. 340 Royal Poinciana Way (Royal Poinciana Playhouse)
- 5. 160 Royal Palm Way (The Palm House Hotel) \*
- 6. Breaker's Plan Unit Development (PUD)\*
- 7. 184 Sunset Avenue. (Low-rise Multifamily Development) \*



\* It should be noted that no traffic impact studies were found in the Town's records for developments/redevelopments 5. 6. and listed above. For these 7 three development/redevelopments, site-generated trips were calculated per the ITE Trip Generation Manual, 11th Edition, and trip distribution/trip assignment, based on the proposed use or uses of the site as well as the adjacent land uses to the project area, were completed so that those estimated trips can be included as part of the forecasted traffic operations of this section of the It should also be noted that for this section of the report, all developments and studv. redevelopments listed above were assumed to be operational by the year 2029; this includes the 251 Low-Rise multi-family units from The Breaker's PUD, as stated in the Town of Palm Beach Comprehensive Plan amended November 9, 2022. The relevant pages of the available traffic impact studies, along with other relevant documents from the approved development and redevelopments within the Town, are included in Appendix D.

In addition to the above-committed vehicular trips, Town staff asked to include additional committed trips from the City of West Palm Beach development projects as part of the future analysis scenario. Section 1.2.4.2 City of West Palm Beach (Committed Development Trips) of this study summarizes the number of projects and trips utilized for the future 2029 analysis periods.

# 1.2.4.2 City of West Palm Beach (Committed Development Trips)

The City of West Palm Beach Development Services Department was contacted regarding development projects currently under review, approved, and under construction. The projects that were posted on the Citywide Projects Web Viewer page through April 19, 2024, were included as part of the committed trips for the traffic operational analysis for the future conditions' scenario.



The list of projects under review (13), approved (25), and under construction (15) included a total of fifty-three (53) separate applications on file with the City of West Palm Beach. The Palm Beach County Traffic Performance Standards (TPS) GIS Database was also cross-checked to verify the

total number of daily and AM/PM peak hour trips for each project and the associated trip distribution/assignment road on the The network. site-generated trips distributed to the Southern Boulevard, Royal Palm Way (Royal Park Bridge), and Royal Poinciana Way (Flagler Memorial Bridge) bridge crossings were summarized in a table format for the traffic operational analysis of the impacted intersection locations. It should be noted that some of the 53 applications were not reflected in the Palm Beach County TPS Database. The projected site-generated trips for these projects were calculated per the ITE Trip



Figure 6 Downtown Development West Palm Beach

Generation Manual based on the redevelopment program for each project. An estimated trip distribution/trip assignment was developed for each project. Table 8 depicts the summary of the AM and PM peak-hour trips at each bridge crossing. A copy of the project summaries, trip generation, and trip distribution/assignment from the Palm Beach County TPS database have been included for these City of West Palm Beach projects in **Appendix D**.

TOWN OF PALM BEACH ROADWAY	AM PEAK HOUR ENTERING TRIPS	AM PEAK HOUR EXITING TRIPS	PM PEAK HOUR ENTERING TRIPS	PM PEAK HOUR EXITING TRIPS
Royal Poinciana Way	146	118	155	191
Royal Palm Way	203	85	155	238
Southern Boulevard	42	32	51	62

#### Table 8 City of West Palm Beach Projected Peak Trips In and Out of the Town



As mentioned in Section 1.2.3 TRAFFIC OPERATIONS (2024 Conditions) of this study, the Town has been working on the deployment of Adaptive Traffic Control Systems (ATCS) at all signalized intersections within the Town's jurisdiction. Synchro Software does not model proprietary algorithms from the Econolite Centracs Edaptive Signal Control System. The forecasted 2029 analyses were modeled in Synchro including the signal timing modifications and corridors' coordination, as provided by Town staff.

Table 9 identifies the forecasted level of service and delays as modeled by Synchro for all study intersections during the weekday AM, MID, and PM peak hours for 2029. As shown in Table 9, all signalized intersections are expected to operate at an acceptable level of service (LOS) D or better during the forecasted 2029 AM, MID, and PM peak hour scenarios. Unsignalized intersections were also evaluated; all individual approaches during the AM, MID and PM peak scenarios are expected to operate at an acceptable LOS D or better. The Synchro output reports for the forecasted 2029 conditions are included in **Appendix D**.

The three bridges that connect the Town of Palm Beach with the City of West Palm Beach have bridge openings governed by the operating schedule set forth by the United States Coast Guard and FDOT. The normal operating schedule for the drawbridge openings is as follows:

- Flagler Memorial Bridge (SR A1A)- opens on the quarter and three-quarter hours.
- Royal Park Bridge (SR 704)- opens on the hour and half hour.
- Southern Boulevard (SR 700/80)- opens on the quarter and three-quarter hour.



There have been reduced drawbridge openings during peak hour periods since January 2024 on a test basis per the United States Coast Guard. The drawbridge openings are reduced to one per hour between 7:30 a.m. and 9:00 a.m. and 4:00 p.m. to

Figure 7 Royal Park Bridge Opening

6:00 p.m. Traffic congestion is experienced by the Town of Palm Beach during each of these drawbridge openings as depicted in Figure 7. A copy of the drawbridge opening schedule and United States Coast Guard Governing Regulations can be found in **Appendix C**.



#### Table 9 2029 Level of Service Results

No	INTERSECTION		ARCA/CAREAT	AMPEAK	HOUR	MD PEA	K HOUR	PMPEAK	HOUR
Ne	INTERSECTION	CONTROL ITTPE	MOVEMENT	DELAY (s/v)	LOS	DELAY (s/v)	LOS	DELAY (s/v)	LOS
			EB	31.4	C	28.9	С	29.8	C
	Same of		WB	32.4	C	31.2	С	30.9	C
1	S County Road &	Signalized	NB	2	A	2.8	A	2.4	A
	Golfview Rd	- granter	SB	1	A	19	A	23	A
			OVERALL	49	Δ	62	٨	51	٨
-		_	OVERALL	4.5	<u> </u>	0.2	~	5.1	~
			EB	00.0	0	10.0	0	20.4	C.
			WB	23.8	<u> </u>	19.3	В	20.1	C .
2	S County Rd & Worth Ave	Signalized	NB	3.5	A	5.6	A	5,1	A
			SB	3.7	A	7.5	A	7.3	A
-			OVERALL	8.6	A	10.5	В	8	A
			EB	24.3	C	19.6	В	19.9	В
			WB						
3	S County Rd & Peruvian	Signalized	NB	3.4	A	6.4	A	6.1	A
	Ave		SB	8.7	A	14.3	В	13.8	В
			OVERALL	10.1	B	13	В	12.5	В
			FR	10.1				12.0	5
	and the second		LD	0.0		10.0	D	10.4	P
	S County Rd & Chilean	Hartsuckerd	WD ND	9.9	A	10.9	D	10.4	D
4	Ave	Unsignalized	NB	0		0		0	-
			SB	0	-	0		0	
			OVERALL						
			EB	11.1	B	13.8	В	12.7	В
	S County Dd & Australian		WB						
5	Aug	Unsignalized	NB	0		0		0	-
	Ave	1.1.1.1.1.1.1.1	SB	0		0		0	-
			OVERALL						
-			EB	12.9	В	15.3	C	14.1	В
			WB	9.7	A	10.5	В	10.5	В
6	S County Rd & Brazilian	Unsignalized	NB	2.5		32	-	2.4	+
-	Ave	- and a second	SB	0.2	-	0.1	-	0.1	
			OVERALL			0.1			
		-	FR	10	B	23.8	C	19.6	B
			W/D	13	0	25.5	0	13.0	0
7	S County Rd & Royal	Oliver effect of	ND	42.5	0	35.5	0	43.0	0
1	Palm Way	Signalized	NB	15,4	В	10.8	B	20	C
			SB	31.2	C	30.2	C	29.6	C
		-	OVERALL	24.6	C	25.5	C	25.8	C
			EB						
	S County Dd & Social		WB	13,1	В	13.2	В	12.2	В
8	S County Ru & Seaview	Unsignalized	NB	0.6	-	0.3		2.1	-
	Ave		SB	0		0		0	
			OVERALL						
			EB	36.4	D	32.6	С	43.2	D
	States & B. States		WB	44.1	D	42.6	D	53.3	D
Q	N County Rd & Royal	Signalized	NB	26.1	C	30.3	C	24.7	C
	Poinciana Way	Orginalizou	SB	18.5	B	17.4	R	58.2	F
			OVEDALL	20.2	C	26.6	C	44.7	D
			OVERALL	20.2	L.	20.0	L.	44.1	D
			EB						
	S County Rd & Breakers		WB	30.2	C	29.8	C	30.2	Ç
10	Row	Signalized	NB	9.6	A	5.6	A	4.8	A
			SB	9.5A	A	6.1	A	5.7	A
			OVERALL	13.9	B	7.1	Α	7.1	A
			EB	63.3	E	38.2	D	82.8	F
	as marchen a		WB	34.4	C	34.2	С	41.4	D
11	N County Rd & Sunset	Signalized	NB	27	A	22	A	23	A
0	Ave	orginalizou	SR	4.4	Δ	24	Δ	19	٨
			OVERALL	85	Δ	6	Δ	126	R
-			OVERALL	0.0	A	0	A	12.0	0
			EB	31.9	C	42.8	0	50.8	D
	N County Rd & Sunrise		WB	29.2	C	28.8	C	36.5	D
12	Ave	Signalized	NB	9.8	В	15.4	В	10.2	В
			SB	7.7	A	10.8	В	10.2	В
			OVERALL	12.1	В	18.1	В	16.5	В



			EB	13.2	В	15	С	17.1	С
			WB						
13	Bradley PI & Sunset Ave	Unsignalized	NB	0.2	-	0.5	-	0.6	-
		U U	SB	0.1	-	0.2	-	0.1	-
			OVERALL						
			EB						
			WB	29.9	С	41.5	D	42.7	D
14	Bradley PL & Sunrise Ave	Signalized	NB	10.9	В	5.3	A	12.5	В
	bradioj i ra odimoo rivo	orginalizou	SB	4.3	Α	8.2	А	9.8	Α
			OVERALL	11.7	В	16.2	В	18.7	В
			FR	83.7	F	33.9	D	44.4	D
			WB	20.4	C C	23.1	C	33.5	C
15	Cocoanut Row & Royal	Cignalized	NB	10.9	B	23.1		26.7	C
15	Poinciana Way	Signalizeu	SB	19.3	B	19.6	B	43	0
				52 7	D	25.5	C	43 20	D
				10	D	2J.J	D	40.0	D
			ED	19	B C	13.0	B C	48.9	D
1/	Cocoanut Row & Royal	C'	WB	20.3		23.1	D	33	
16	Palm Way	Signalized		40.1	D	30.3	D	47.5	D
			SB	40	D	39.3	D	41.9	D
			OVERALL	24.3	U R	23.4	د د	41.8	D
			EB	11.3	B	/	A	5.1	A
17	S Ocean Blvd & Southern	Deveedabeed	WB	1.8	A	2.3	A	4.9	A
17	Blvd	Roundabout	NB	3.0	A	3.8	A	4.0	A
			SB	-					
				0		0		0	
				0	-	1	-	0.9	-
10	S Lake Dr & Royal Palm	Uncignalized	ND	0.1	-	17.6	-	0.0	-
10	Way	Ulisiyilalizeu		22.3	C	17.0	C	10.0	C
				-					
			FR	7.4	Δ	8.2	Δ	75	۵
			WB	7.4	Δ	8.3	Δ	7.9	A
10	S Lake Dr & Brazilian Ave	Insignalized	NB	7.7	Δ	7.7	Δ	7.6	A
.,		Unsignalized	SB	9.1	A	11.7	В	8.5	A
			OVERALL				_		
			FB	-	-	-	-	-	-
			WB						
20	S Lake Dr & Australian	Unsignalized	NB	9.4	А	9.7	А	9.4	А
20	Ave	orioignaii2ou	SB	-	-	-	-	-	-
			OVERALL						
			EB	-					
			WB	7.4	Α	7.4	А	7.2	A
21	S Lake Dr & Chilean Ave	Unsignalized	NB	7.3	Α	7.5	A	7.5	A
		0	SB	7.9	Α	8.2	А	7.7	A
			OVERALL						
			EB						
	C Laka Dr. 9. Demusion		WB	-					
22		Unsignalized	NB	7.1	Α	7.2	А	7.2	A
	Ave		SB	8.2	Α	8.4	А	7.9	A
			OVERALL						
			EB						
	Cocoanut Row & Worth		WB	0	-	0	-	0	-
23		Unsignalized	NB						
	1100		SB	8.5	A	8.6	A	8.7	А
			OVERALL						
			EB	10.1	В	14.2	В	15.9	С
	Cocoanut Row &		WB	20.9	С	20.9	С	29.6	D
24	Seaview Ave	Unsignalized	NB	0	-	0	-	0	-
	Couriew / Wo		SB	0	-	0	-	0	-
4			OVEDALL						

Source: Highway Capacity Manual & Synchro Software

(s/v) = Average Delay measured in seconds/vehicle

Results shown on this table for the signalized intersections include timing modifications provided by Town staff and are limited to Synchro Software capabilities At unsignalized intersections, the LOS is only documented for the stop-controlled movement



# 1.2.5. 95TH PERCENTILE QUEUE ANALYSES

A 95th percentile queue analysis was also completed for the 2024 scenario for the AM, MID, and PM peak hours at each study signalized intersections with existing turning bays. Queue lengths are important parameters in traffic engineering for determining the capacity and the quality of the traffic control device equipment chosen for each intersection. At signalized intersections, queue lengths at the end of red time are most important for dimensioning the necessary turn lane storage lengths. While the average queue length reflects the capacity of traffic signals, the 95th percentile of queue lengths at red-ends is used to determine the length of turning lanes so that the risk of a blockage in the through lanes can be minimized. The results of the 95th percentile queue analyses are shown in Table 10.

As indicated in Table 10, all the existing turn lane bays at the study signalized intersections except for the eastbound left-turn lanes (EBLTL) at South County Road and Royal Palm Way (intersection #7), Cocoanut Row and Royal Poinciana Way (intersection #15), and Cocoanut Row and Royal Palm Way (intersection #16) intersections, provide adequate capacity to accommodate the existing peak hours vehicular during the peak hours analyzed. The Synchro Queue output reports are included in **Appendix E**.

It should be noted that the results from the Synchro software (Table 7) at those three intersections (#7, #15, and #16) show an acceptable level of service (LOS) D or better during the three peak periods analyzed for the eastbound (EB) approach movement; which could indicate that the existing EBLTL turn lane bays are not restricting the capacity of the EB through lanes, but just making the situation less desirable. Field observations need to be completed during peak season to confirm the above statement. No observations were completed during any of the peak hours at any of the 3 intersections mentioned above (# 7, #15, and #16) to confirm the outputs reported by Synchro Software due to the time of completion of this 95th percentile queuing analyses, which was between May and June of 2024, as those two months do not reflect the traffic peak season months of the Town.



Table 10 95th Percentile Queue (Existing Conditions)

SIGNALIZED INTERSECTION	MOVEMENT	LINK DISTANCE / STORAGE*	Existing 95th Percentile Queue in ft. AM (MID) [PM]**	Queue in Excess of Storage in ft. AM (MID) [PM]
1. County Rd. & Golfview Rd.				
2. County Rd. & Worth Ave.	NBL	150	23, (33), [27]	0, (0), [0]
3. County Rd. & Peruvian Ave.				
7. County Rd. & Royal Palm Way	EBL	180	240, (299), [93]	60, (119), [0]
9. County Rd. & Royal Poinciana Way	EBL	410	215, (51), [192]	0, (0), [0]
10. County Rd. & Breakers Row				
11 County Dd & Sunsat Ava	EBL	70	18, (35), [74]	0, (0), [0]
	EBR	100	39, (60),[84]	0, (0), [0]
12. County Rd. & Sunrise Ave.	WBL	210	80, (93), [100]	0, (0), [0]
14. Bradley Pl. & Sunrise Ave.	SBL	40	7, (18), [16]	0, (0), [0]
	EBL	240	227, (139), [156]	13, (0), [0]
15. Cocoanut Row & Royal Poinciana Way	WBL	110	94, (91), [101]	0, (0), [0]
	WBR	150	1, (0), [1]	0, (0), [0]
16 Cocooput Dow & Doval Dalm May	EBL	150	285, (167), [293]	135, (17), [143]
TO. COCUATION ROW & RUYAT PAILIT WAY	SBL	225	77, (49), [71]	0, (0), [0]

\* Does Not Include Taper Length

\*\* From 2024 Synchro Output Reports

Results shown on this table include timing modifications provided by Town staff and are limited to Synchro Software capabilities

# **1.3 SOUTH LAKE DRIVE ONE-WAY ANALYSIS**

South Lake Drive, as previously mentioned in Section 1.2.1 EXISTING CONDITIONS of this study, is a two-lane, two-way, undivided local roadway that runs in the north/south direction, it is maintained by the Town and has a posted limit of 25 MPH. The Town has expressed an interest in modifying the current roadway direction from two-way travel to a one-way southbound only from the intersection with Royal Palm Way south to Peruvian Avenue.

An analysis of the conversion of South Lake Drive from a bidirectional corridor in the north/south direction to a one-way street in the southbound direction was completed utilizing the results of Section 1.2.4 FORECASTED OPERATIONS of this study. Table 11 compares the traffic operations between the 2029 forecasted conditions with and without the proposed modifications to the South Lake Drive corridor and the affected nearby intersections.



#### Table 11 South Lake Drive One-Way SB Direction Operation Results

INTERSECTION         MOVEMENT         2029 WITH EXISTING ROADWAY CONFIGURATION         2029 WITH S. L CORRIDOR SE AM PEAK HOUR         PM PEAK HOUR         AM PEAK HOURHOUR         A for antheat HOUR			vith S. Lak Ridor SB O	e dr. Ni y			
INTERSECTION	MOVEMENT	ΑΜ ΡΕΑΚ	MID PFAK	PM PFAK		MID PFAK	PM PFAK
		HOUR	HOUR	HOUR	HOUR	HOUR	HOUR
	EB	B (19)	B (13.6)	D (48.9)	C (20.7)	C (20.9)	D (51.6)
	WB	C (25.3)	C (23.1)	C (33)	C (26.1)	D (35.6)	E (62.6)
16. Cocoanut Row & Royal Paim	NB	D (40.1)	D (36.3)	D (47.5)	D (41)	C (24.8)	D (42.8)
way (Signalized)	SB	B (40)	D (39.3)	D (41.9)	D (39.5)	C (29.1)	C (33.4)
	OVERALL	C (24.3)	C (23.4)	D (41.8)	C (25.8)	C (27.3)	D (50.9)
	EB	0	0	0	0	0	0
19 S Lako Dr. & Daval Dalm Way	WB	0.1	1	0.8	0.4	0.4	0.2
10. S Lake DI. & Ruyal Pallil Way (Unsignalized)	NB	C (22.3)	C (17.6)	C (16.8)			
(Onsignalized)	SB						
	OVERALL						
	EB	A (7.4)	A (8.2)	A (7.5)	A (7.2)	A (8)	A (7.3)
10 S Lako Dr. & Brazilian Avo	WB	A (7.3)	A (8.3)	A (7.9)	A (7.9)	A (8.3)	A (7.8)
(Unsignalized)	NB	A (7.7)	A (7.7)	A (7.6)			
(Onsignalized)	SB	A (9.1)	B (11.7)	A (8.5)	A (8.9)	B (11.3)	A (8.3)
	OVERALL						
	EB						
21 Slake Dr. & Chilean Ave	WB	A (7.4)	A (7.4)	A (7.2)	A (9.5)	A (9.6)	A (9.2)
(Unsignalized)	NB	A (7.3)	A (7.5)	A (7.5)			
(Onsignalized)	SB	A (7.9)	A (8.2)	A (7.7)	0	0	0
	OVERALL						
	EB						
22 S Lake Dr. & Peruvian Ave	WB						
(Unsignalized)	NB	A (7.1)	A (7.2)	A (7.2)	A (6.7)	A (6.9)	A (6.8)
(Onsignalized)	SB	A (8.2)	A (8.4)	A (7.9)	A (8.2)	A (8.4)	A (7.9)
	OVERALL						

Source: Highway Capacity Manual & Synchro Software

Legend: D (00.0) = LOS (Average Delay measured in seconds/vehicle)

Results shown on this table for the signalized intersections include timing modifications provided by Town staff and are limited to Synchro Software capabilities

At unsignalized intersections, the LOS is only documented for the stop-controlled movement

Based on the results from Synchro software presented in Table 11, there are no significant operational impacts expected at the signalized intersection of Cocoanut Road and Royal Palm Way, where most of these trips will be absorbed, and it is expected to continue to operate at an overall acceptable LOS D or better for the forecasted 2029 traffic conditions. All other analyzed unsignalized intersections show an improvement in delay measured in average seconds/vehicle. The Synchro Output reports of the 2029 forecasted conditions at the intersections mentioned in Table 11 are included in **Appendix E.** 



# **1.4 SEAVIEW AVENUE TRAFFIC OPERATIONS/CONDITIONS**

The Town Council requested that The Corradino Group complete an evaluation of the traffic conditions experienced along the Seaview Avenue corridor during the dismissal periods of the Palm Beach Elementary School and Palm Beach Academy. Palm Beach Elementary School is located at 239 Cocoanut Row and Palm Beach Day Academy is located at 241 Seaview Avenue in the Town of Palm Beach.

Seaview Avenue is a one-way roadway facility that operates westbound between S. County Road and Cocoanut Row. The roadway classification is a local street with a posted speed limit of 25 mph. The school zone speed limit identified along Seaview Avenue is 15 mph and 20 mph along Cocoanut Row and S. County Road north and South of Seaview Avenue.

In addition to the turning movement counts collected at Seaview Avenue and Cocoanut Row (intersection #24) and Seaview Avenue and S. County Road (intersection #8), a field visit was completed on Monday, May 20<sup>th</sup>, 2024, to review the traffic operations associated with the afternoon dismissal/pick-up time for both schools. The following was observed during the dismissal periods of the schools:



Figure 8 Palm Beach Elementary School Dismissal along Seaview Ave.

looking WB.

Palm Beach Elementary School's dismissal period begins at 2:05 PM.

Seaview Avenue for the Palm Beach Elementary School dismissal at around 1:30 p.m. Student volunteers came out and stacked numbered cones in the middle of the sidewalk adjacent to the on-street parking spaces on the south side of Seaview Avenue as shown in Figure 8. Vehicles stack along Seaview Avenue as students are escorted out to the assigned numbered parking space/cone. Vehicles then exit the parking space and turn onto Cocoanut Row.

began

stacking

along

Vehicles

- Row.
  An assigned traffic control officer was controlling traffic within the intersection of Seaview
  - An assigned traffic control officer was controlling traffic within the intersection of Seaview Avenue and Cocoanut Row (intersection #24).
  - Vehicle stacking did not extend into S. County Road during the dismissal period. Vehicles were cleared from Seaview Avenue by 2:20 PM.



# Palm Beach Day Academy's dismissal period begins at 3:00 PM

- Vehicles started stacking for the Palm Beach Day Academy dismissal at 2:30 PM.
   Vehicles stack on the north side of Seaview Avenue up to the existing crosswalk at the Main entrance to the school.
- There are crossing guards at the existing crosswalk location who monitor student pickup.
- Traffic control officers were at the intersections of S. County Road and Seaview Avenue (intersection #8) and Seaview Avenue and Cocoanut Row (Intersection #24).
- Vehicles stacked along Seaview Avenue and out onto S. County Road north to Seabreeze Avenue along the outermost southbound lane of S. County Road while the innermost southbound travel lane continues to flow as shown in Figure 9.



Figure 9 Palm Beach Day Academy Stacking Dismissal along Seaview Ave. looking WB.

The peak vehicle stacking dissipated by 3:10 PM.

Figure 10 shows the maximum queue observed during school pick-up operations.

	Seabreeze Av	eue Started at 2:30 PM		
R ABER	Seaspray Ave			
Seaview A	ve.	Palm Beach Day		
	Elementary	Queue Started at 1:30 PM Queue Dissipated at 2:30 PM	ounty Rd	
Royal Palm	Way.		H-LINE	

Figure 10 Palm Beach Elementary School and Palm Beach Day Academy Maximum Queues Observed.



# **1.5 ORIGIN DESTINATION ANALYSES**

# **1.5.1. TRAFFIC DATA COLLECTION**

Corradino and the Town of Palm Beach partnered with Streetlight Data to obtain a license for the Big Data available through the Streetlight InSight Data platform. StreetLight InSight users can access customized analytics like Origin-Destination, select link, travel time, speed percentiles, routing, and more. Corradino has utilized the Streetlight InSight Data platform using 45 analysis zones defined by the area type to aid in evaluating the origins and destinations from external and internal trips.

# **1.5.2 ORIGIN DESTINATION ANALYSIS- GOALS AND OBJECTIVES**

Corradino evaluated the Streetlight data to determine the current traffic patterns to the Town for average weekday and weekend conditions. The Origin-Destination data was calibrated using available directional Annual Average Daily Traffic (AADT). This analysis included the following:

- Determination of what percentage of the traffic is local traffic or traffic from outside of the Town.
- Determination of the distribution of traffic originating from each of the entry points into the Town.

Corradino divided the Town of Palm Beach into three distinct areas: North District, Central District, and South District. The following sections provide an expanded narrative regarding the characteristics of each District.

# **1.5.3 ORIGIN DESTINATION ANALYSIS**

Corradino developed the traffic analysis zones in the Streetlight Data InSight data platform. Figure 6 depicts all 45 analysis zones along with the three (3) different districts.

- Zone numbers 5,11, 15, and 18 include Golf Clubs/Courses.
- Zone numbers 28, 29, 39, 43, and 45 include commercial business strips.
- Zone numbers 40, 41, 42, and 44 include the beach areas.
- And all other zones are categorized as residential zones.

The Origin-Destination (O-D) analysis results for the weekday and weekend scenarios are tabulated in Tables 12, 13, 14, 15, 16, and 17.

# TOWN OF PALM BEACH OD ZONES ANALYSIS



Figure 11 O-D Zones Analysis Map



#### Table 12 Weekday O-D Data Daily

												Weekd	lay Daily												
								DESTI	NATION									<b>T</b> 1 1	<b>T</b> 1.1	W. 1 T.					
			North Dis	strict				C	entral Di	strict				Sol	th District			l Otal (Externel	10[a] (Externel	WORK Trips	I rips to			Home-Based	Channerol
					North	Work					Central	Work				South	Work	(External -	External	External	10WI1 (Streetlight	ΔΔΩΤ	Total	(Streetlight	Beach
ORIGIN	Recreational	Commercial	Beaches	Residential	Total	Trips	Recreational	Commercial	Beaches	Residential	Total	Trips	Recreational	Beaches	Residential	Total	Trips	Trips)	Trips)	Trips)	OD data)	2022	Residential	OD Data)	Goers
Flagler Memorial Bridge	944	3,206	11	1,645	5,806	1,419	-	355	81	2,054	2,490	507	4	42	65	111	1	8,407	977	183	9,384	9,000	3,764	2,110	3,510
Royal Palm Bridge	1,209	2,984	4	1,381	5,578	1,493	12	1,380	457	6,566	8,415	2,288	23	62	103	188	4	14,181	1,423	266	15,604	12,500	8,050	4,050	3,504
Southern Blvd Bridge	165	370	-	266	801	283	79	281	343	2,804	3,507	1,108	92	204	1,393	1,689	396	5,997	1,050	177	7,047	4,550	4,463	1,964	620
Lake Ave Bridge	24	37	-	41	102	44	2	10	19	111	142	67	112	2,767	2,574	5,453	917	5,697	2,908	807	8,605	7,350	2,726	1,835	4,044
Zone 1/ Barton Park	68	216	-	45	329	47	-	164	69	376	609	56	82	651	1,050	1,783	149	2,721	2,627	745	5,348	5,000	1,471	998	2,879
Grand Total	2,410	6,813	15	3,378	12,616	3,286	93	2,190	969	11,911	15,163	4,026	313	3,726	5,185	9,224	1,467	37,003	8,985	2,177	45,988	38,400	20,474	10,957	14,557

#### Table 13 Weekday AM Peak Data 6 AM to 10 AM

									Weekda	y AM Peak	Period (6	5am-10ar	n)									
								DEST	NATION									Total	Total	Work Trins	Trins to	
			North Dis	strict					Central Di	strict				Sou	ith District			(External -	(External -	(External -	Town	
					North	Work					Central	Work				South	Work	Internal	External	External	(Streetlight	Total
ORIGIN	Recreational	Commercial	Beaches	<b>Residential</b>	Total	Trips	Recreational	Commercial	Beaches	<b>Residential</b>	Total	Trips	Recreational	Beaches	<b>Residential</b>	Total	Trips	Trips)	Trips)	Trips)	OD data)	Residential
Flagler Memorial Bridge	222	975	•	794	1,991	416		91	6	604	701	155	-	18	34	52	-	2,744	135	19	2,879	1,432
Royal Palm Bridge	322	892	-	675	1,889	359	-	429	76	2,457	2,962	735	2	6	10	18	-	4,869	193	23	5,062	3,142
Southern Blvd Bridge	74	155		179	408	85	26	128	43	1,089	1,286	249	8	25	524	557	106	2,251	176	22	2,427	1,792
Lake Ave Bridge	4	16	•	32	52	24	2	4	-	69	75	49	17	419	704	1,140	338	1,267	685	266	1,952	805
Zone 1/ Barton Park	11	44		30	85	34	-	32	24	91	147	43	33	80	141	254	29	486	310	122	796	262
Grand Total	633	2,082		1,710	4,425	918	28	684	149	4,310	5,171	1,231	60	548	1,413	2,021	473	11,617	1,499	452	13,116	7433

#### Table 144 Weekday PM Peak Data 3 PM to 7 PM

									Weekda	y PM Peak	Period (	3pm-7pn	ו)									
								DESTINA	TION									Total	Total	Work Trins	Trins to	
		Nor	th Distric	:t				Cen	tral Distric	:t				South E	District			(External -	(External -	(External -	Town	
					North	Work		Central Work South South										Internal	External	External	(Streetlight	Total
ORIGIN	Recreational	Commercial	Beaches	Residential	Total	Trips	Recreational	Commercia	Beaches	Residential	Total	Trips	Recreational	Beaches	<b>Residential</b>	Total	Trips	Trips)	Trips)	Trips)	OD data)	Residential
Flagler Memorial Bridge	191	681		294	1,166	132	-	110	28	501	639	43	4	13	12	29	-	1,834	330	50	2,164	807
Royal Palm Bridge	267	625	2	301	1,195	215	4	286	132	1,314	1,736	167	4	17	36	57	1	2,988	473	90	3,461	1,651
Southern Blvd Bridge	28	49	-	21	98	8	16	42	113	548	719	128	25	39	234	298	35	1,115	292	37	1,407	803
Lake Ave Bridge	4	2	-	2	8		-	-	8	14	22	-	24	618	566	1,208	156	1,238	691	163	1,929	582
Zone 1/ Barton Park	43	66	-	8	117	2	-	53	13	113	179	1	26	147	278	451	41	747	964	224	1,711	399
Grand Total	533	1,423	2	626	2,584	357	20	491	294	2,490	3,295	339	83	834	1,126	2,043	233	7,922	2,750	564	10,672	4242



#### Table 15 Weekend OD Data Daily

												Week	end Daily												
								DEST	INATION									Total	Total	Work Trips	Trips to			Home-Based	
			North Dis	trict				(	Central D	istrict				Sc	outh District			(External -	(External -	(External -	Town			Work Trips	Shoppers/
	Providential Community Devidential Tele Trics Developed Devidential Community Devidential							Central	Work				South	Work	Internal	External	External	(Streetlight	AADT	Total	(Streetlight	Beach			
ORIGIN	Recreational	Commercial	Beaches	Residential	Total	Trips	Recreational	Commercial	Beaches	Residential	Total	Trips	Recreational	Beaches	Residential	Total	Trips	Trips)	Trips)	Trips)	OD data)	2022	Residential	OD Data)	Goers
Flagler Memorial Bridge	847	2,540	3	781	4,171	638	-	235	89	1,441	1,765	191	-	7	23	30	4	5,966	1,370	102	7,336	9,000	2,245	934	4,157
Royal Palm Bridge	1,360	2,846	19	680	4,905	651	14	1,112	641	5,126	6,893	565	19	130	135	284	5	12,082	4,470	239	16,552	12,500	5,941	1,461	9,150
Southern Blvd Bridge	146	485	7	127	765	74	29	257	698	2,292	3,276	456	101	479	1,112	1,692	90	5,733	2,182	191	7,915	4,550	3,531	811	3,573
Lake Ave Bridge	43	46	-	50	139	63	3	7	38	124	172	28	127	5,879	3,250	9,256	716	9,567	1,757	550	11,324	7,350	3,424	1,357	6,543
Zone 1/ Barton Park	81	284	-	52	417	5	-	138	77	416	631	24	67	1,528	1,936	3,531	136	4,579	3,334	328	7,913	5,000	2,404	493	5,016
Grand Total	2,477	6,201	29	1,690	10,397	1,431	46	1,749	1,543	9,399	12,737	1,265	314	8,023	6,456	14,793	950	37,927	13,113	1,410	51,040	38,400	17,545	5,056	28,439

#### Table 16 Weekend AM Peak OD Data 6 AM to 10 AM

	Weekend AM Peak Period (6am-10am)																					
	DESTINATION										Total	Total	Work Trips	Trips to								
	North District Central District South District (E							(External -	(External -	(External -	Town											
					North	Work					Central	Work				South	Work	Internal	External	External	(Streetlight	Total
ORIGIN	Recreational	Commercial	Beaches	<b>Residential</b>	Total	Trips	Recreational	Commercial	Beaches	<b>Residential</b>	Total	Trips	Recreational	Beaches	Residential	Total	Trips	Trips)	Trips)	Trips)	OD data)	Residential
Flagler Memorial Bridge	59	324		149	532	137		48	7	176	231	71		-	-	-	-	763	108	33	871	325
Royal Palm Bridge	264	393	3	127	787	173		127	108	707	942	221	7	3	3	13	-	1,742	143	40	1,885	837
Southern Blvd Bridge	3	63		24	90	22		43	99	428	570	201	7	44	191	242	50	902	145	43	1,047	643
Lake Ave Bridge	-	-		34	34	34	3	-	11	35	49	17	24	1,037	732	1,793	291	1,876	565	266	2,441	801
Zone 1/ Barton Park	3	29		14	46	-		31	23	76	130	15	11	230	287	528	25	704	267	122	971	377
Grand Total	329	809	3	348	1,489	366	3	249	248	1,422	1,922	525	49	1,314	1,213	2,576	366	5,987	1,228	504	7,215	2,983

#### Table 17 Weekend PM Peak Data 3 PM to 7 PM

	Weekend PM Peak Period (3pm-7pm)																					
	DESTINATION										Total	Total	Work Trins	Trins to								
			North Dis	strict				(	Central Di	istrict				Sc	outh District			(External -	(External -	(External -	Town	
					North	Work					Central	Work				South	Work	Internal	External	External	(Streetlight	Total
ORIGIN	Recreational	Commercial	Beaches	<b>Residential</b>	Total	Trips	Recreational	Commercial	Beaches	Residential	Total	Trips	Recreational	Beaches	Residential	Total	Trips	Trips)	Trips)	Trips)	OD data)	Residential
Flagler Memorial Bridge	246	632		175	1,053	82		80	15	414	509	13		-	16	16	3	1,578	467	50	2,045	605
Royal Palm Bridge	437	785	11	153	1,386	88	3	361	146	1,488	1,998	91	3	45	40	88	4	3,472	675	90	4,147	1,681
Southern Blvd Bridge	39	102	3	32	176	13	10	89	219	675	993	57	15	149	283	447	4	1,616	560	37	2,176	990
Lake Ave Bridge	15	10		7	32	4		3	23	48	74	-	27	1,622	871	2,520	105	2,626	1,288	163	3,914	926
Zone 1/ Barton Park	26	84		3	113	-		34	23	121	178	-	11	461	542	1,014	60	1,305	1,116	224	2,421	666
Grand Total	763	1,613	14	370	2,760	187	13	567	426	2,746	3,752	161	56	2,277	1,752	4,085	176	10,597	4,106	564	14,703	4,868

From these O-D analysis results, the following conclusions were drawn:

- A total one-way AADT of 38,400 trips come into the town daily using the five entry points-4 causeways and Ocean Boulevard at the south end of the town.
- A total of 11,247 average weekday trips are destined for the major attractors in the area (beaches, commercial areas, and golf courses). These can include work trips and recreational trips.
- A total of 15,806 average weekend day trips destined to the major attractors in the area.
- On a typical weekday, the North District attracts mainly golf courses (2,410) and commercial area (6,813) trips. The Central District attracts primarily commercial area trips (2,190) and beach trips (969). The South District mainly attracts beach trips (3,741) and golf course trips (313).
- On a typical weekend day, the types of trips each district attracts are similar to those on weekdays, except the magnitude of trips is different. North District attracts mainly golf courses (2,477) and trips to the commercial area (1,625). The Central District attracts primarily commercial area trips (1,749) and beach trips (1,543). The South District mainly attracts beach trips (8,052) and golf course trips (314).

It is understood that it will be further useful to know how many of these trips are work trips. For this, an aggregate assessment for the entire town has been completed using the Census Longitudinal Employer-Household Dynamics (LEHD) Data that provides the worker flow information. This data is developed by Census using the employer payroll data and matching it with the employees' home ends to their work ends. The LEHD data for the Town has been extracted and is shown in Figure 12. Approximately 11,400 daily trips come into the Town for work purposes.



Figure 12 Town of Palm Beach Census Longitudinal Employer-Household Data

Based on the results of the StreetLight data reviewed, there are about 11,400 trips classified as work trips. This number was confirmed with the Longitudinal Employer-Household Dynamics (LEHD) program which is part of the Center for Economic Studies at the U.S. Census Bureau. It should be noted that there may be other employment trips, such as temporary construction workers, and self-employment trips, such as plumbers, and landscapers not generally accounted for in the U.S Census data. This analysis provides the magnitude of total worker and visitor trips that come into the town and to various districts within the Town. These can be further utilized for transportation planning purposes. The StreetLight OD data package has been submitted to the Town separately.



StreetLight data is unable to distinguish the specific landscape trade/maintenance worker trips within the data analysis due to the granular nature of the request. Random field observations were completed on the island on 05/20/24 to confirm the presence of these trips. For example, five different landscape vehicles were located along Miraflores Drive between N. Lake Way and N. County Road at 1:00 p.m. Figures 13 and 14 depict these landscape trade/maintenance workers. Similar observations occurred on other local Town roads during the afternoon peak periods.



Figure 13 Miraflores Drive looking west towards N. County Road



Figure 14 Miraflores Drive east of N. Lake Way



# 2. PARKING ANALYSES COMMERCIAL AREAS

Parking availability and utilization in the commercial area of Palm Beach affect the daily life of the Town's residents, visitors, and businesses. Where supply and demand become misaligned, whether in absolute numbers for the entire area or by more specific locations, then access is inhibited to economic, educational, and recreational opportunities and quality-of-life of residents and visitors becomes strained.

The Town of Palm Beach's mixed-use districts include residences, commerce, and employment uses in compact and walkable districts, and each is bordered north to south by residential areas and golf courses, by the Intracoastal Waterway to the west and the Atlantic Ocean to the east. The compact geography, while providing excellent walkable community fabric, also exacerbates impacts from unmanaged localized parking demands exceeding



Figure 15 Town of Palm Beach On-Street Parking

parking supply within walksheds. Many of the land uses are legacy uses constructed at a time when parking requirements were significantly less than current demands for parking spaces.

The data and analysis of this section will accomplish the following three (3) objectives.

- 1. How much parking is provided in the study area?
- 2. How parking is being utilized and if the current demand exceeds capacity?
- 3. Identification of feasible strategies for increasing total or localized available parking capacity that is both satisfactory to the Town's residents and productive for businesses.

# **2.1 PARKING DATA COLLECTION**

Parking Data collection is required in the commercial districts and corridors of the Town for the purpose of providing parking data that is ready for analysis of the districts' parking supplies and demands. Parking data was collected in the two of the Town's commercial districts. For each study area, parking was inventoried by block based on field review.



- The North Commercial Parking Study District is defined by the following boundaries: north, Park Avenue; south, Royal Poinciana Way; east, North County Road (A1A); and west, Bradley Place.
- The South Commercial Parking Study District is defined by the following boundaries: north, Royal Palm Way; south, Cocoanut Row; east, South Ocean Boulevard; and west, Bradley Place

# **Parking Occupancy**

Parking Occupancy Data was collected for each district. Parking occupancy data is a "snapshot" of peak conditions made during a one-hour period, in which parked cars are counted, and the number of parked vehicles is divided by the number of available spaces. On-street parking occupancies of 85-90% are usually considered the highest acceptable target since there must be spaces always available for someone looking for a space. Occupancies above 100% are possible where vehicles park illegally or in unofficial spaces. Data is grouped by city block or by parking lot. Occupancy data provides concrete information to identify inadequate parking availability. High occupancies in one area combined with lower occupancies nearby indicate an opportunity for parking management. Where this occurs, excess demand should be directed to the nearby available supply, with modifications to information for drivers and circulation patterns. Parking occupancy data was collected during three time periods:

- Midday a weekday (Wednesday) midday survey was performed from 12:00 noon to 2:00
   PM to capture the peak for offices, retail, and restaurant patronage on a weekday.
- Weekend Daytime a Saturday midday survey was performed from 3:00 PM to 5:00 PM to capture the peak for retail and restaurant patronage on weekends.
- Weekend Evening a Saturday evening survey was performed from 6:00 PM to 8:00 PM to capture the peak for dinner restaurant patronage on weekends.

## **Duration & Turnover**

The length of time a car remains in a given parking space is its duration and was estimated by collecting partial license plate information. (The last three numbers are recorded. Complete license plate information is not ever recorded to ensure that there are no records from this study that would violate individual privacy). The number of hourly intervals for each vehicle in the same space is observed, and then an average duration for all spaces by parking area and time period is calculated. Duration data can be used to understand parking behavior to redefine time restrictions and parking fees toward using existing spaces more efficiently. This analysis can reveal if there are different parking behaviors in different areas and at different time periods. The inverse of duration is turnover, that describes the number of cars that can use a space in a given period of time. Parking Turnover & Occupancy: Accumulation, turnover and occupancy studies were performed from 11:00 AM to 8:00 PM on a weekend day at sample locations within the general retail/restaurant area and town-serving commercial districts. The locations were along Worth Avenue from Cocoanut Row to South Ocean Boulevard and South County Road (A1A) from Worth Avenue to Royal Palm Way



# **Study Areas**

The study areas are along land designated as "Commercial" on the Town Zoning Map. It includes the zoning districts that are shown in Figure 9. The study areas include roadways and parking lots along and on land designated as "Commercial" on the Town Zoning Map.

Atlantic Ocean



Figure 16 Zoning Map Excerpt and Parking Study Boundaries



includes lt the zoning districts: Commercial Office, Professional, Institutional (C-OPI), Commercial Planned Center (C-PC), Commercial Town Serving (C-TS), Commercial, Worth Avenue (C-WA), and Commercial Offices (C-B).

The study includes two contiguous commercial and mixed-use areas that are highlighted on Figure 16 Zoning Map Excerpt. The South Commercial Parking Study District is the Town's primary tourist destination. The North Commercial Parking Study District is smaller, and a more locally serving commercial area to the north of the Breakers Golf Course.



# **2.2 PARKING SUPPLY**

## South Commercial Parking Study District

The South Commercial Parking Study District includes 1,188 on-street parking spaces from South Lake Drive to South Ocean Boulevard and from Royal Palm Way to Worth Avenue, as summarized in Table 18. The study area covered by the data collection does not include Royal Palm Way, South Ocean Boulevard, and South Lake Drive or the segment of east-west streets from Cocoanut Row to South Lake Drive. This area is predominantly residential and covered by a parking permit program that would bias survey results for public self-parking. Of the 1,188 South Commercial Parking Study District on-street parking spaces, about 27% are for the residential and dock permit program, and 10% are not available by other regulatory restrictions for special uses, commercial and passenger loading, or valet areas. Sixty-three percent is available for public self-parking.



Figure 17 South Commercial Parking Study District Street Segments and Off-Street Parking Lots

Ownership patterns and proprietary restrictions on off-street spaces cause a similar reduction of public parking supply on off-street locations. In total, 1,350 off-street spaces are available in the South District; however, only 895 (66%) are available for public self-parking. In total, the cumulative effect of restrictions is to reduce publicly available parking supply by 35% in the South Commercial Parking Study District.



	TOTAL	PUBLICLY AVAILABLE MONDAY- SATURDAY	PUBLICLY Available Sundays, Holidays	AVAILABLE VIA VALET	AVAILABLE TO SPECIFIC BUSINESS	PARKING BY PERMIT ONLY	NOT AVAILABLE
On-Street Parking	1,188	749 (63%)	776 (65%)	n.a.	n.a.	322 (27%)	117 (10%)
Off-Street Parking	1,350	895 (66%)	895 (66%)	79 (6%)	82 (6%)	n.a.	294 (22%)
Total	2,538	1,644 (65%)	1,671 (66%)	79 (3%)	82 (3%)	322 (13%)	411 (16%)

## Table 18 South Commercial Study District Parking Space Availability by Regulation



## North Commercial Parking Study District

In the North Commercial Parking Study District, on-street parking is less impacted by restrictions, where there are 220 on-street parking spaces in total, and only nine are regulated as commercial and passenger loading zones or taxi stands, leaving 96% available for public self-parking. This is summarized in Table 19. Off-street parking in the North Study District is impacted more by ownership patterns and proprietary restrictions. Of the 502 off-street spaces, 386 (77%) are publicly available for self-parking. In the North Study District, restrictions lower the publicly available parking supply by 17%.



Figure 18 North Commercial Parking Study District Street Segments and Off-Street Parking Lots



	TOTAL	PUBLICLY AVAILABLE MONDAY- SATURDAY	PUBLICLY AVAILABLE SUNDAYS, HOLIDAYS	AVAILABLE VIA VALET	AVAILABLE TO SPECIFIC BUSINESS	PARKING BY PERMIT ONLY	not Available
On-Street Parking	220	211 (96%)	211 (96%)	n.a.	n.a.	0	9 (4%)
Off-Street Parking	502	386 (77%)	386 (77%)	0 (0%)	54 (11%)	60 (12%)	2 (<1%)
Total	722	597 (83%)	597 (83%)	0 (0%)	54 (7%)	60 (8%)	11 (2%)

 Table 19 North Area Parking Space Availability by Regulation

# 2.3 PARKING DEMAND

For each district, two types of parking data were collected: 1) accumulation studies and 2) occupancy studies.

# 2.3.1 ACCUMULATION STUDIES

The Accumulation Studies is a "snapshot" of conditions that measure occupancy of available spaces. If there is a high utilization, above 90%, then either more spaces are needed, or a management and information system is needed to direct people to available spaces; however, a small percentage of excess spaces at any given time during peak hours is necessary to maintain a high quality of service for providing adequate parking to satisfy the mobility of parking demand. Furthermore, if there is sufficient parking for the district overall, individual walksheds are also considered to provide parking that is of service quality and that satisfies residents, employees, and business patrons. This is defined as distances of approximately a five-minute walk time, about ¼-mile from parking space to destination. Walkshed overlap and are dependent on a person's destination. For the purpose of understanding potential local parking supply deficiencies, the distribution of parking accumulation results is disaggregated by street segments and mapped to visualize spatial patterns of unmet parking needs. These results will help identify localized parking insufficiencies that can be addressed with locationally specific parking capacity improvements or parking management alternatives.

The accumulation studies were performed during three time periods:

- Midday Weekday from 12:00 noon to 2:00 PM to capture the presumed peak for offices, retail, and restaurant patronage on a weekday. The data was collected on Wednesday, March 8, 2023.
- Weekend Afternoon from 3:00 PM to 5:00 PM to capture the presumed peak for shopping and visitor traffic prior to dinner hours. The data was collected on Saturday, March 4, 2023.
- Weekend Evening from 6:00 PM to 8:00 PM to capture the peak for restaurant and evening entertainment patronage. The data was collected on Saturday, March 4, 2023.

Tables 20 through 23 summarize the results of the accumulation studies by street segment for the three time periods, showing the percentage of spaces occupied for each survey period. For each roadway segment, the basis of the occupancy data is all publicly available parking spaces, on-street, and off-street. The results are graphically illustrated in Figures 19 through 24. The parking data collected is included in **Appendix F**.

STREET	FROM	то	PUBLICLY AVAILABLE SPACES	WEEKDAY MIDDAY OCCUPANCY	SATURDAY AFTERNOON OCCUPANCY	SATURDAY EVENING OCCUPANCY
	Cocoanut Row	Hibiscus Avenue	33	64%	79%	67%
Brazilian Avenue	Hibiscus Avenue	South County Road	31	94%	90%	74%
	South County Rd.	South Ocean Blvd.	46	26%	65%	24%
	Cocoanut Row	Hibiscus Avenue	40	65%	78%	78%
Australian Avenue	Hibiscus Avenue	South County Road	24	67%	83%	92%
	South County Rd.	South Ocean Blvd.	32	84%	72%	56%
	Cocoanut Row	Hibiscus Avenue	33	64%	58%	42%
Chilean Avenue	Hibiscus Avenue	South County Road	30	87%	80%	60%
	South County Rd.	South Ocean Blvd.	34	71%	94%	47%
	Cocoanut Row	Hibiscus Avenue	36	83%	97%	0%
Peruvian Avenue	Hibiscus Avenue	South County Road	39	49%	72%	87%
	South County Rd.	South Ocean Blvd.	36	22%	31%	47%
	Cocoanut Row	Hibiscus Avenue	41	100%	102%	110%
Worth Avenue	Hibiscus Avenue	South County Road	46	35%	102%	93%
	South County Rd.	South Ocean Blvd.	46	35%	98%	72%
	Royal Palm Way	Brazilian Avenue	10	40%	0%	10%
Cocooput Pow	Brazilian Avenue	Australian Avenue	20	10%	60%	65%
	Australian Avenue	Chilean Avenue	4	0%	100%	50%
	Chilean Avenue	Peruvian Avenue	13	0%	85%	100%

Table 20 South Commercial Parking Study District On-Street Parking Accumulation Summary



	Peruvian Avenue	Worth Avenue	18	106%	106%	106%
	Royal Palm Way	Brazilian Avenue	9	33%	33%	33%
	Brazilian Avenue	Australian Avenue	9	100%	100%	100%
Hibiscus Avenue	Australian Avenue	Chilean Avenue	6	0	0	100%
	Chilean Avenue	Peruvian Avenue	5	100%	100%	100%
	Peruvian Avenue	Worth Avenue	0	not applicable	not applicable	not applicable
	Royal Palm Way	Brazilian Avenue	21	60%	95%	100%
	Brazilian Avenue	Australian Avenue	21	68%	76%	95%
South County Road	Australian Avenue	Chilean Avenue	22	77%	41%	64%
Nouu	Chilean Avenue	Peruvian Avenue	7	57%	100%	71%
	Peruvian Avenue	Worth Avenue	6	35%	83%	83%
Total for District			718	59%	78%	67%

## Table 21 North Commercial Parking Study District On-Street Parking Accumulation Summary

STREET	FROM	то	PUBLICLY AVAILABLE SPACES	WEEKDAY MIDDAY OCCUPANCY	SATURDAY AFTERNOON OCCUPANCY	SATURDAY EVENING OCCUPANCY
Sunrise Avenue	Bradley Place	North County Road	20	90%	75%	85%
Sunset Avenue	Bradley Place	North County Road	21	86%	100%	100%
Royal Poinciana Avenue	Bradley Place	North County Road	139	89%	19%	27%
	Park Avenue	Sunrise Avenue	5	20%	80%	100%
Bradley Place	Sunrise Avenue	Sunset Avenue	9	89%	78%	100%
	Sunset Avenue	Royal Poinciana Av.	8	63%	75%	63%
	Park Avenue	Sunrise Avenue	8	50%	38%	25%
North County Road	Sunrise Avenue	Sunset Avenue	10	100%	100%	60%
Nouu	Sunset Avenue	Royal Poinciana Av.	0	n.a.	n.a.	n.a.
Total for District			220	85%	42%	46%



Table 22 South Commercial Parking Study District Off-Street Parking Accumulation Summary (public and proprietary spaces – includes valet spaces)

BLOCK	BOUNDED BY	LOTS	AVAILABLE SPACES BY LOT	AVAILABLE SPACES BY BLOCK	WEEKDAY MIDDAY OCCUPANCY	SATURDAY AFTERNOON OCCUPANCY	SATURDAY EVENING OCC.	
	Royal Palm Way							
Plock 1	Hibiscus Avenue	Lot 1	21	21	05%	105%	F20/	
DIUCK I	South County Road	LULI	21	21	9570	10576	5270	
	Brazilian Avenue							
	Royal Palm Way							
Block 2	South County Road	Lot 2	31	31	97%	97%	65%	
2100112	South Ocean Boulevard			0.		,,,,,	0070	
	Brazilian Avenue		50					
	Brazilian Avenue	Lot 3	58					
Block 3	HIDISCUS Avenue	Lot 4	0	125	86%	50%	64%	
	South County Road	LOI 5	51					
	Australian Avenue	LOL 6	10					
	South County Pood	LOU 7	20 12					
Block 4	South Ocean Boulovard	LOL 0	42	80	79%	56%	73%	
		Lot 10	8					
		LOUTO	0					
	Hibiscus Avenue	Lot 12	41					
Block 5	South County Road			47	81%	43%	30%	
	Chilean Avenue	Lot 13	6					
	Australian Avenue							
	South County Road		_	_				
Block 6	South Ocean Boulevard	Lot 11	5	5	20%	0%	0%	
	Chilean Avenue							
	Chilean Avenue	Lot 14	79					
	Hibiscus Avenue	Lot 15	15					
Block 7	South County Road	Lot 16	22	147	82%	67%	29%	
	Peruvian Avenue	Lot 17	13					
		Lot 18	18					
	Chilean Avenue							
Block 8	South County Road	Lot 19	42	42	48%	50%	90%	
Dicolto	South Ocean Boulevard	20(1)		12	1070	0070	,0,0	
	Peruvian Avenue							
	Peruvian Avenue	Lot 20	46					
Block 9		Lot 21	2	57	89%	54%	82%	
		LOT 22	9					
	Worth Avenue							
	Hibiccus Avenue	Lot 23	172					
Block 10	South County Pood			194	65%	97%	62%	
	Worth Avenue	Lot 24	22					
		Lot 25	10					
		Lot 26	15					
Block 11	South County Road	Lot 27	0	225	56%	23%	26%	
	Worth Avenue	Lot 28	161					
	Worth Avenue	_0, _0						
	Cocoanut Row	1				070/	<b>C</b> 21	
Block 12	South County Road	Lot 29	51	51	49%	27%	2%	
	Alley south of Worth Av.	1						



BLOCK	BOUNDED BY	LOTS	AVAILABLE SPACES BY LOT	AVAILABLE SPACES BY BLOCK	WEEKDAY MIDDAY OCCUPANCY	SATURDAY AFTERNOON OCCUPANCY	SATURDAY EVENING OCC.
Block 13	Worth Avenue South County Road South Ocean Boulevard Interior lot lines	Lot 30	325	325	92%	72%	27%
Total for District			1,350	1,350	76%	61%	43%

Table 23 North Commercial Parking Study District Off-Street Parking Accumulation Summary (public and propietary spa	aces –
includes valet spaces)	

	BOUNDED BY	LOTS	AVAILABLE SPACES BY LOT	AVAILABLE SPACES BY BLOCK	WEEKDAY MIDDAY OCCUPANCY	SATURDAY AFTERNOON OCCUPANCY	SATURDAY EVENING OCCUPANCY
Block 14	Park Avenue Bradley Place North County Road Sunrise Avenue	Lot 31	80	80	49&	26%	54%
Block 15	Sunrise Avenue Bradley Place North County Road Sunset Avenue	Lot 32 Lot 33 Lot 34 Lot 35 Lot 36	218 9 47 21 26	321	80%	85%	70%
Block 16	Sunset Avenue Bradley Place North County Road Royal Poinciana Avenue	Lot 37 Lot 38 Lot 39 Lot 40	15 7 15 64	101	62%	50%	42%
Total for District			502	502	71%	69%	62%





Figure 19 South Commercial Parking Study District Parking Accumulation Study Results - Weekday 12 PM to 2 PM





Figure 20 South Commercial Parking Study District Parking Accumulation Study Results -Saturday 3 PM to 5 PM





Figure 21 South Commercial Parking Study District Parking Accumulation Study Results - Saturday 6 PM to 8 PM





Figure 22 North Commercial Parking Study District Parking Accumulation Study Results - Weekday 12 PM to 2 PM




Figure 23 North Commercial Parking Study District Parking Accumulation Study Results - Saturday 3PM to 5PM





Figure 24 North Commercial Parking Study District Parking Accumulation Study Results - Saturday 6 PM to 8 PM



#### 2.3.2 OCCUPANCY STUDIES

In addition to peak accumulation and utilization, a key data point for parking analysis is

understanding how long a parking space is occupied. Long occupancies are typical of work and residential parking patterns; however, in a retail and services setting, long occupancies can exacerbate parking supply insufficiencies by not turning over spaces often enough for newly arriving patrons to find available parking spaces. In a retail and services setting that is combined with high tourism, it is more typical to experience longer occupancy in the system as tourists visit multiple destinations that may include longer duration activities such as full-service Figure 25 Town of Palm Beach On-Street Parking dining or visiting the beach.



Long-term parking should be regulated to off-street locations to allow for convenient "hitching post" parking on the street to support short-term retail access by patrons, by having clearly visible short-term parking spaces in the immediate vicinity of short retail visits. Short retail visits include retail purchases of goods from store inventories or personal services that are on a drop-off and pick-up basis, such as cobblers, but not services where the service is performed while the patron is present, such as barbers and doctors. The shortest-term parking in Palm Beach are the five post office spaces limited to 15 minutes.



Figure 26 Town of Palm Beach Post Office

Throughout the South Study District and the North Study

District, all on-street parking is regulated to 2 hours or less. On one hand, this supports shopping and multiple destinations, browsing and dining; however, a shorter duration of 1/2 to 1 hour or less would better support the businesses that require short-term visits.



Table 24 provides the regulatory parking durations that are permitted. This table summarizes a survey of posted street parking regulations that includes the streets of the entire mixed-use area from intracoastal to the beach, including Royal Palm Way, South Lake Drive and South Ocean Boulevard in addition to the study area streets. Approximately 40% of on-street parking is metered and short-term, being of 1 hour or less, with another 22% in the 1 to 2-hour range.

	15- minute Parking	30-minute Parking	1-hour Parking	2-hour parking	Metered Parking	Handicap Parking	Permit	No Parking
Royal Palm Way	-	-	-	-	39	-	-	-
Brazilian Avenue	-	-	7	57	14	-	66	-
Australian Avenue	-	-	6	55	5	1	79	8
Chilean Avenue	-	-	62	7	7	-	60	14
Peruvian Avenue	5	-	10	-	78	-	60	7
Worth Avenue	-	28	-	99	16	-	10	7
South Lake Drive	-	-	-	-	-	-	88 (dock & residential)	-
Cocoanut Row	-	-	15	31	-	-	9	9
Hibiscus Avenue	-	-	8	9	-	-	12	1
South County Road	-	10	57	-	-	-	-	9
South Ocean Blvd	-	-	-	-	119	2	-	-
Total	5 (<1%)	38 <i>(3%)</i>	165 <i>(14%)</i>	258 <i>(22%)</i>	278 <i>(23%)</i>	3 (<1%)	384 <i>(32%)</i>	55 <i>(5%)</i>

#### Table 24 On-Street Spaces by Regulated Maximum Parking Duration South Lake Dr. to South Ocean Blvd.



Parking Turnover & Occupancy Studies were performed from 11:00 AM to 8:00 PM on Saturday, March 4, 2023, at sample locations within the general retail/restaurant area and town-serving commercial districts, including:

- South County Road (A1A) from Australian Avenue to Royal Palm Way
- South County Road (A1A) from Royal Palm Way to Brazilian Avenue
- South County Road (A1A) from Brazilian Avenue to Australian Avenue
- South County Road (A1A) from Australian Avenue to Chilean Avenue
- South County Road (A1A) from Chilean Avenue to Peruvian Avenue
- South County Road (A1A) from Peruvian Avenue to Worth Avenue
- Worth Avenue from Hibiscus Avenue to Cocoanut Row
- Worth Avenue from South County Road to Hibiscus Avenue
- Worth Avenue from South Ocean Boulevard to South County Road

The two corridors (South County Road & Worth Avenue) were selected as representation of three (3) types of commercial destinations with three potential parking demand patterns.

South County Road (SR A1A) is a commercial corridor along the major spine of the Town, with a mix of retail, business and civic uses. These uses typically require a shorter parking duration with more single destination trips and short duration services. Public parking along South County Road is mostly regulated to a 1-hour maximum, with a small amount of 30-minute parking. The expectation is for short-term parking. The results of the parking occupancy study on South County Road are shown in Figure 27. The average parking duration along South County Road is 1 hour and 4 minutes. Over 34% of parked cars stayed over the regulated limit of 1 hour, and the compliance rate is less than 66%.

TOWN OF PALM BEACH TRAFFIC ANALYSES & COMMERCIAL AREAS PARKING STUDY



Figure 27 South County Road (A1A) Parking Duration

Worth Avenue is comprised of a mix of destination luxury retail, offices and services. Similar to malls, it is expected to service multiple destinations within a attractive pedestrian environment. Patrons are mix of local residents and visitors to Palm Beach. Public parking on Worth Avenue is primarily regulated to a 2-hour maximum. The expectation is for longer-term parking. The results of the parking occupancy study on Worth Avenue are shown in Figure 28 below. The average parking duration along Worth Avenue is 1 hour and 16 minutes. Over 16% of parked cars stayed over the regulated limit of 2 hours, and the compliance rate is less than 84%.



Figure 28 Worth Avenue Parking Duration

# 2.4 DEVELOPMENT AND PARKING REQUIREMENTS

To improve the quality-of-life and economic viability of the commercial areas, the Town will consider revising its land development and parking regulations and will need parking audit information for a data-driven approach. Task 3 is to provide the Town with the necessary data to establish the existing and project conditions for different land use scenarios. The Town's Parking Code and Shared Parking Ordinance have been reviewed and compared with three similar communities to determine if parking standards need to be modernized to fit contemporary forms of development and contemporary travel and vehicle usage patterns.

To select peer communities, the geographic and land development that are listed below were used.

- Small, compact and walkable mixed-use district.
- Mix of residential, offices, commercial/professional services, with a mix of destination luxury retail as well as daily community needs retail.
- Geographically constrained as either an island or an isolated area.
- Retail and service establishments that serve high-price residential community needs.
- Tourist destination that is adjacent to major metropolitan area.
- Preference is given to Florida communities.

The three (3) peer communities chosen are: 1. Bal Harbour, Florida, 2. Naples, Florida 3.and Greenwich, Connecticut. Table 25 provides how each criteria evaluation was used to select these peer communities.

Table 25 Peer Community Selection Criteria

CRITERIA	PALM BEACH, FLORIDA	BAL HARBOUR, FLORIDA	NAPLES, FLORIDA	GREENWICH, CONNECTICUT
Compact, walkable mixed-use	Yes	Generally	Yes	Yes
Geographically Constrained	Yes	Yes	No	No
Luxury Mixed Use	Yes	Yes	Yes	Yes
High-Price Point Residential	Yes	Yes	Yes	Yes
Tourist Destination near major metro	Yes	Yes	Yes	Yes
Florida Community	Yes	Yes	Yes	No

## 2.4.1 PARKING REQUIREMENT COMPARISON: BAL HARBOUR, FLORIDA

## Table 26 Parking Requirement Comparison: Bal Harbour, Fl.

	LAND USE / OCCUPATION	PARKING REQUIREMENTS	PARKING REQUIREMENTS
		Palm Beach, Florida	Bal Harbour, Florida
1	Single-family dwellings, first 3,000 sq. ft.	2 spaces	2 spaces
	additional 3,000 sq. ft.	1 additional space	not applicable
	Multi-Family Dwelling Units	not applicable - see below	spaces for each 10 dwelling unit, plus 1 additional space for each 10 dwelling units in total, plus required spaces for any business within
	Two-family dwellings and townhouses: Dwelling unit of 3,000 sq. ft. or less	2 spaces per dwelling unit plus 1 per every 5 dwelling units (2.2 spaces per dwelling unit)	see Multi-family Dwelling Units
	Two-family dwellings and townhouses: Dwelling unit over 3,000 sq. ft.	3 spaces per dwelling unit plus 1 per every 5 dwelling units (3.2 spaces per dwelling unit)	see Multi-family Dwelling Units
2	Multifamily dwellings with 3 dwelling units	8 spaces (2.67 spaces per dwelling unit)	see Multi-family Dwelling Units
	Multifamily dwellings with 4 dwelling units	11 spaces (2.75 spaces per dwelling unit)	see Multi-family Dwelling Units
	Multifamily dwellings with 5 dwelling units	13 spaces (2.6 spaces per dwelling unit)	see Multi-family Dwelling Units
	Multifamily dwellings with 6 or more dwelling units	2.2 spaces per dwelling unit	see Multi-family Dwelling Units
3	Houses of worship, theaters and auditoriums	One per four permanent seats in the main auditorium.	not applicable
4	Social, swimming, golf, tennis and yacht clubs	One per four members.	see "Hotels"
5	Retail, commercial and personal service establishments and banks and financial institutions, excluding brokerage and trust companies	One per 200 square feet of gross leasable area (GLA)	Business Establishments: 3.1 spaces for each 1,000 sq. ft. of 90% gross floor area, except municipal buildings and religious institutions.
6	Hotels, condo-hotels, motels, motor inns and timesharing uses	One and three-fourths per unit with two or fewer rooms, and 2.75 per unit with more than two rooms; plus one for each 2.5 seats of conference capacity including auditorium, ballroom, banquet facilities, convention hall, gymnasium, meeting rooms, or other similar places of assembly.	1 space for each guest room of separate occupancy, plus one space for each 400 sq. ft. of public assembly area, plus the required spaces for each business within. (excepts grandfathered apartment hotels)
7	Libraries, museums and nonprofit cultural centers	One per 500 square feet	see "Business Establishments" above
8	Medical or dental offices or clinics	One per 250 square feet of gross leasable area (GLA)	included in "Business Establishments" above
9	Restaurants, nightclubs or other eating places	One for each three proposed fixed seats, and/or one for each 45 square feet of floor area in the proposed public seating area not having fixed seats, plus one for each 300 square feet of floor area in the remainder of the floor area	see "Business Establishments" above
10	Reserved	not applicable	not applicable
11	Schools (public or private): Grades 1 through 6	One per 14 students	not applicable
	Schools (public or private): Grades 7 through 9	One per nine students	not applicable
	Schools (public or private): Grades 10 through 12	One per three students	not applicable
12	Accessory commercial retail and service uses in hotels and condo hotels	One per 250 square feet except for a restaurant, nightclub, bar, or other entry place which shall require the same as subsection (9) of this section, and except for conference facilities and similar places of assembly which shall require the same as subsection (6) of this section	not applicable



	LAND USE / OCCUPATION	PARKING REQUIREMENTS Palm Beach, Florida	PARKING REQUIREMENTS Bal Harbour, Florida
13	Office, professional and business service establishments, institutions, institutions, and brokerage and trust companies	One per 250 square feet of gross leasable area (GLA)	not applicable
14	Group home and foster care facilities	One space per each four resident occupants or fraction thereof, plus one per each employee in the largest work shift, with a minimum of two parking spaces	not applicable
15	Required off-street parking exception for commercial parking garages in the C-WA zoning district	Number of required parking spaces attributed to uses on a commercial property within a parking garage in the C-WA district may be reduced by a maximum of 15 percent in order to provide off-site supplemental parking for other off-site commercial uses in the same district. The application can only be approved if the property owner provides evidence satisfactory to the town at the time of application and on an annual renewal basis that said parking exception will not negatively impact the parking of all on-site uses. Those off-site commercial uses in the C-WA district that are allowed to share the parking garage shall not be allowed to use said shared parking as a basis to develop or redevelop property, or expand or intensify the use of property. (See footnote 1 for requirements in granting an exception)	not applicable
	SHARED PARKING	BY SPECIAL EXCEPTION in CT-S, C-WA, and C-OPI zoning districts. Basis is professional advice to staff. There are no standards.	included in other categories - shared use not provided

## 2.4.2 PARKING REQUIREMENT COMPARISON: NAPLES, FLORIDA

Table 27 Parking Requirement Comparison: Naples, Fl.

	LAND USE / OCCUPATION	PARKING REQUIREMENTS Palm Beach, Florida	PARKING REQUIREMENTS Naples, Florida
1	Single-family dwellings, first 3,000 sq. ft.	2 spaces	2 spaces
	additional 3,000 sq. ft.	1 additional space	not applicable
	Multi-Family Dwelling Units	not applicable - see below	2 spaces per dwelling unit, plus 1 additional space for each 10 dwelling units in total, except for certain zoning districts, 1 visitor space for first 12 dwelling units and 1 visitor space for each 2 dwelling units thereafter.
	Two-family dwellings and townhouses: Dwelling unit of 3,000 sq. ft. or less	2 spaces per dwelling unit plus 1 per every 5 dwelling units (2.2 spaces per dwelling unit)	see Multi-family Dwelling Units
	Two-family dwellings and townhouses: Dwelling unit over 3,000 sq. ft.	3 spaces per dwelling unit plus 1 per every 5 dwelling units (3.2 spaces per dwelling unit)	see Multi-family Dwelling Units
2	Multifamily dwellings with 3 dwelling units	8 spaces (2.67 spaces per dwelling unit)	see Multi-family Dwelling Units
	Multifamily dwellings with 4 dwelling units	11 spaces (2.75 spaces per dwelling unit)	see Multi-family Dwelling Units
	Multifamily dwellings with 5 dwelling units	13 spaces (2.6 spaces per dwelling unit)	see Multi-family Dwelling Units
	Multifamily dwellings with 6 or more dwelling units	2.2 spaces per dwelling unit	see Multi-family Dwelling Units
3	Houses of worship, theaters and auditoriums	One per four permanent seats in the main auditorium.	1 space per 4 seats or 1 space per 4 occupants, based on maximum occupancy
4	Social, swimming, golf, tennis and yacht clubs	One per four members.	Country Clubs and Golf Courses: 5 spaces per golf hole, plus 1 space per 200 sq. ft. area



		PARKING REQUIREMENTS	PARKING REQUIREMENTS
	LAND USE / OCCUPATION	Palm Beach, Florida	Naples, Florida
			devoted to food or beverage preparation and service, and plus 1 space per 300 sq. ft. of clubhouse or retail shop.
5	Retail, commercial and personal service establishments and banks and financial institutions, excluding brokerage and trust companies	One per 200 square feet of gross leasable area (GLA)	Commercial uses such as retail sales, offices, financial institutions, maintenance and repair businesses, libraries, museums, art studios or galleries, private clubs which do not serve food or beverages, and business schools: 1 space per 300 sq. ft: Grocery Stores, 1 space per 300 sq. ft.
6	Hotels, condo-hotels, motels, motor inns and timesharing uses	One and three-fourths per unit with two or fewer rooms, and 2.75 per unit with more than two rooms; plus one for each 2.5 seats of conference capacity including auditorium, ballroom, banquet facilities, convention hall, gymnasium, meeting rooms, or other similar places of assembly.	Varies with zoning district: 1.25 spaces per unit for first 100 units, one space per unit for the next 150 units and 0.25 space for all units over 250. Other districts (residential): 1.5 spaces per unit, and 2 spaces per unit.
7	Libraries, museums and nonprofit cultural centers	One per 500 square feet	see "Auditoriums"
8	Medical or dental offices or clinics	One per 250 square feet of gross leasable area (GLA)	1 space per 175 sq. ft. gross leasable floor area
9	Restaurants, nightclubs or other eating places	One for each three proposed fixed seats, and/or one for each 45 square feet of floor area in the proposed public seating area not having fixed seats, plus one for each 300 square feet of floor area in the remainder of the floor area	1 space per 100 sq. f.t of gross floor area. does not include outdoor dining. Outdoor dining requires 3 spaces for every 1,000 sq. ft. of outdoor dining except in 5th Av South Special District. Outdoor dining area under 100 sq. ft. is exempt.
10	Reserved	not applicable	not applicable
11	Schools (public or private): Grades 1 through 6	One per 14 students	1 space for each classroom plus 1 space for each 10 seats in an auditorium
	Schools (public or private): Grades 7 through 9	One per nine students	1 space for each classroom plus 1 space for each 10 seats in an auditorium
	Schools (public or private): Grades 10 through 12	One per three students	2 spaces for each classroom plus 1 space for each 8 seats in an auditorium
12	Accessory commercial retail and service uses in hotels and condo hotels	One per 250 square feet except for a restaurant, nightclub, bar, or other entry place which shall require the same as subsection (9) of this section, and except for conference facilities and similar places of assembly which shall require the same as subsection (6) of this section	not applicable
13	Office, professional and business service establishments, institutions, institutions, and brokerage and trust companies	One per 250 square feet of gross leasable area (GLA)	see "Commercial Uses" 1 space per 300 sq. f.t gross floor area
14	Group home and foster care facilities	One space per each four resident occupants or fraction thereof, plus one per each employee in the largest work shift, with a minimum of two parking spaces	1 space per 2 beds
15	Required off-street parking exception for commercial parking garages in the C-WA zoning district	Number of required parking spaces attributed to uses on a commercial property within a parking garage in the C-WA district may be reduced by a maximum of 15 percent in order to provide off-site supplemental parking for other off-site commercial uses in the same district. The application can only be approved if the property owner provides evidence satisfactory to the town at the time of application and on an annual renewal basis that said parking exception will not negatively	not applicable



LAND USE / OCCUPATION	PARKING REQUIREMENTS Palm Beach, Florida	PARKING REQUIREMENTS Naples, Florida
	impact the parking of all on-site uses. Those off-site commercial uses in the C-WA district that are allowed to share the parking garage shall not be allowed to use said shared parking as a basis to develop or redevelop property, or expand or intensify the use of property. (See footnote 1 for requirements in granting an exception)	
SHARED PARKING	BY SPECIAL EXCEPTION in CT-S, C-WA, and C-OPI zoning districts. Basis is professional advice to staff. There are no standards.	may be reduced by parking needs analysis approved as a conditional use, or with shared parking agreement approved as a conditional use and limited to certain zoning districts and no more than 20% reduction.

## 2.4.3 PARKING REQUIREMENT COMPARISON: GREENWICH, CONNECTICUT

Table 28 Parking Requirement Comparison: Greenwich, Ct.

		PARKING REQUIREMENTS	PARKING REQUIREMENTS
	LAND USE / UCCUPATION	Palm Beach, Florida	Greenwich, Connecticut
1	Single-family dwellings, first 3,000 sq. ft.	2 spaces	Dwelling with 1 or 2 bedrooms: 1 garage space and a 1 outdoor space for each dwelling unit. Studio apartments: 1 garage space and 1.6 outdoor spaces for each dwelling unit.
	additional 3,000 sq. ft.	1 additional space	Dwelling with 3 or more bedrooms: 1 garage space and 1.6 outdoor spaces for each dwelling unit.
	Multi-Family Dwelling Units	not applicable - see below	1 space per dwelling unit unless a greater or lesser number is deemed appropriate by the Commission.
	Two-family dwellings and townhouses: Dwelling unit of 3,000 sq. ft. or less	2 spaces per dwelling unit plus 1 per every 5 dwelling units (2.2 spaces per dwelling unit)	see above
	Two-family dwellings and townhouses: Dwelling unit over 3,000 sq. ft.	3 spaces per dwelling unit plus 1 per every 5 dwelling units (3.2 spaces per dwelling unit)	see above
2	Multifamily dwellings with 3 dwelling units	8 spaces (2.67 spaces per dwelling unit)	see above
	Multifamily dwellings with 4 dwelling units	11 spaces (2.75 spaces per dwelling unit)	see above
	Multifamily dwellings with 5 dwelling units	13 spaces (2.6 spaces per dwelling unit)	see above
	Multifamily dwellings with 6 or more dwelling units	2.2 spaces per dwelling unit	see above
3	Houses of worship, theaters and auditoriums	One per four permanent seats in the main auditorium.	1 space per 3 seats
4	Social, swimming, golf, tennis and yacht clubs	One per four members.	1 per membership or as determined by Commission based on type and facility, and membership use pattern
5	Retail, commercial and personal service establishments and banks and financial institutions, excluding brokerage and trust companies	One per 200 square feet of gross leasable area (GLA)	Personal Services: 2 spaces for each chair or station; Retail: 1 space per 150 sq. ft. of usable floor area; Supermarkets: 1 space per 150 sq. ft. of usable floor area
6	Hotels, condo-hotels, motels, motor inns and timesharing uses	One and three-fourths per unit with two or fewer rooms, and 2.75 per unit with more than two rooms; plus one for each 2.5 seats of conference capacity including auditorium, ballroom, banquet facilities, convention hall, gymnasium, meeting rooms, or other similar places of assembly.	1 per guest room in addition to parking required by other uses in the same building or use on same lot.



		PARKING REQUIREMENTS	PARKING REQUIREMENTS
	LAND USE / UCCUPATION	Palm Beach, Florida	Greenwich, Connecticut
7	Libraries, museums and nonprofit cultural centers	One per 500 square feet	Community Center: 1 space per 200 sq. ft. of usable floor area; Stadium, theater, place of assembly: 1 space per 2.5 seats
8	Medical or dental offices or clinics	One per 250 square feet of gross leasable area (GLA)	5 per medical personnel plus additional parking for employees at 25% or required
9	Restaurants, nightclubs or other eating places	One for each three proposed fixed seats, and/or one for each 45 square feet of floor area in the proposed public seating area not having fixed seats, plus one for each 300 square feet of floor area in the remainder of the floor area	Restaurant: 1 space per 3 persons seated and standing dining capacity; plus 1 per 2 persons for seated and standing bar capacity; Fast Food: 1 space per 2 person dining capacity Plus 14 queue per drive-through window
10	Reserved	not applicable	OTHER USES NOT LISTED: 1 space per 250 sq. ft. of usable floor area.
11	Schools (public or private): Grades 1 through 6	One per 14 students	parking to be provided at adequate level as determined by Planning and Zoning Commission
	Schools (public or private): Grades 7 through 9	One per nine students	parking to be provided at adequate level as determined by Planning and Zoning Commission
	Schools (public or private): Grades 10 through 12	One per three students	parking to be provided at adequate level as determined by Planning and Zoning Commission
12	Accessory commercial retail and service uses in hotels and condo hotels	One per 250 sq. ft. except for restaurant, nightclub, bar, or other entry place which shall require the same as subsection (9) of this section, and except for conference facilities and similar places of assembly which shall require the same as subsection (6) of this sec.	not applicable
13	Office, professional and business service establishments, institutions, institutions, and brokerage and trust companies	One per 250 square feet of gross leasable area (GLA)	Business Office: 1 space per 150 square feet for Group 2a and 2b and 1 space per 200 square feet for Group 2c
14	Group home and foster care facilities	One space per each four resident occupants or fraction thereof, plus one per each employee in the largest work shift, with a minimum of two parking spaces	2 bedrooms: 1 garage space + 1 outdoor space. 3 or more bedrooms 1 garage space + 1.6 outdoor.
15	Required off-street parking exception for commercial parking garages in the C-WA zoning district	Number of required parking spaces attributed to uses on a commercial property within a parking garage in the C-WA district may be reduced by a maximum of 15 percent in order to provide off-site supplemental parking for other off-site commercial uses in the same district. The application can only be approved if the property owner provides evidence satisfactory to the town at the time of application and on an annual renewal basis that said parking exception will not negatively impact the parking of all on-site uses. Those off-site commercial uses in the C-WA district that are allowed to share the parking garage shall not be allowed to use said shared parking as a basis to develop or redevelop property. (See footnote 1 for requirements in granting an exception)	not applicable
	SHARED PARKING	BY SPECIAL EXCEPTION in CT-S, C-WA, and C-OPI zoning districts. Basis is professional advice to staff. There are no standards.	not applicable

### 2.4.4 PARKING REQUIREMENT COMPARISION: ITE PARKING GENERATION MANUAL

In addition, the parking requirements of the Town's land development regulations regarding amount of parking that is required have also been compared to the Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition.

#### Table 29 Parking Requirement Comparison: ITE Parking Generation Manual

	LAND USE / OCCUPATION	PARKING REQUIREMENTS Palm Beach, Florida	ITE Averages ITE Parking Generation 5th Ed.
1	Single-family dwellings, first 3,000 sq. ft.	2 spaces	not applicable
	additional 3,000 sq. ft.	1 additional space	not applicable
	Multi-Family Dwelling Units	not applicable - see below	
2	Two-family dwellings and townhouses: Dwelling unit of 3,000 sq. ft. or less Two-family dwellings and townhouses: Dwelling unit over 3,000 sq. ft. Multifamily dwellings with 3 dwelling units	2 spaces per dwelling unit plus 1 per every 5 dwelling units (2.2 spaces per dwelling unit) 3 spaces per dwelling unit plus 1 per every 5 dwelling units (3.2 spaces per dwelling unit) 8 spaces (2.67 spaces per dwelling unit)	Low Rise Multi-Family Housing (ITE #220, general urban not in proximity to rail transit) : 0.66 spaces per bedroom
	Multifamily dwellings with 4 dwelling units Multifamily dwellings with 5 dwelling units Multifamily dwellings with 6 or more dwelling units	11 spaces (2.75 spaces per dwelling unit) 13 spaces (2.6 spaces per dwelling unit) 2.2 spaces per dwelling unit	
3	Houses of worship, theaters and auditoriums	One per four permanent seats in the main auditorium.	9.44 to 19.22 spaces per 1,000 sq. ft.
4	Social, swimming, golf, tennis and yacht clubs	One per four members.	Tennis Club (ITE #491) 0.98 spaces per 1,000 sq. ft.
5	Retail, commercial and personal service establishments and banks and financial institutions, excluding brokerage and trust companies	One per 200 square feet of gross leasable area (GLA)	General Office (less than 5,000 sq. ft., urban/suburban): 2.25 spaces per 1,000 sq. ft. General Retail (ITE#820, urban/suburban): 1.95 spaces per 1,000 sq. ft.
6	Hotels, condo-hotels, motels, motor inns and timesharing uses	One and three-fourths per unit with two or fewer rooms, and 2.75 per unit with more than two rooms; plus one for each 2.5 seats of conference capacity including auditorium, ballroom, banquet facilities, convention hall, gymnasium, meeting rooms, or other similar places of assembly.	Hotel (ITE #310 urban/suburban): 0.74 spaces per room
7	Libraries, museums and nonprofit cultural centers	One per 500 square feet	Library: 1 space per 2,350 sq. ft. Museum: 1 space per 760 sq. ft.
8	Medical or dental offices or clinics	One per 250 square feet of gross leasable area (GLA)	(ITE #720, general urban/suburban) 3.23 spaces per 1,000 sq. ft.
9	Restaurants, nightclubs or other eating places	One for each three proposed fixed seats, and/or one for each 45 square feet of floor area in the proposed public seating area not having fixed seats, plus one for each 300 square feet of floor area in the remainder of the floor area	Quality Restaurant (ITE#931): 10.52 spaces per 1,000 sq. ft. High Turnover Sit Down Restaurant (ITE#932): 9.44 spaces per 1,000 sq. ft. Fast Food without Drive-Through (ITE#933): 9.91 spaces per 1,000 sq. ft.
10	Reserved	not applicable	not applicable
11	Schools (public or private): Grades 1 through 6	One per 14 students	0.13 spaces per student
	Schools (public or private): Grades 7 through 9	One per nine students	0.09 spaces per student
	Schools (public or private): Grades 10 through 12	One per three students	0.26 spaces per student



	LAND USE / OCCUPATION	PARKING REQUIREMENTS	ITE Averages
12	Accessory commercial retail and service uses in hotels and condo hotels	One per 250 sq. ft. except for restaurant, nightclub, bar, or other entry place which shall require the same as subsection (9) of this section, and except for conference facilities and similar places of assembly which shall require the same as subsection (6) of this sec.	not applicable
13	Office, professional and business service establishments, institutions, institutions, and brokerage and trust companies	One per 250 square feet of gross leasable area (GLA)	General Office (ITE #710): 1 space per 2,390 sq. ft. Small Office Bldg (5,000 sq. ft. or less)(ITE# 712): 1 space per 2,560 sq. ft.
14	Group home and foster care facilities	One space per each four resident occupants or fraction thereof, plus one per each employee in the largest work shift, with a minimum of two parking spaces	Senior Adult Housing (ITE#252) 0.56 space per dwelling unit
15	Required off-street parking exception for commercial parking garages in the C-WA zoning district	Number of required parking spaces attributed to uses on a commercial property within a parking garage in the C-WA district may be reduced by a maximum of 15 percent in order to provide off-site supplemental parking for other off-site commercial uses in the same district. The application can only be approved if the property owner provides evidence satisfactory to the town at the time of application and on an annual renewal basis that said parking exception will not negatively impact the parking of all on-site uses. Those off-site commercial uses in the C-WA district that are allowed to share the parking garage shall not be allowed to use said shared parking as a basis to develop or redevelop property, or expand or intensify the use of property. (See footnote 1 for requirements in granting an exception)	not applicable
	SHARED PARKING	BY SPECIAL EXCEPTION in CT-S, C-WA, and C-OPI zoning districts. Basis is professional advice to staff. There are no standards.	Defined method to share between complementary uses: retail, office, hotel, and residential.

# **2.5 EXISTING AND FUTURE CONDITIONS ANALYSIS - CONCLUSIONS**

Parking Analysis: Commercial Areas- The Town of Palm Beach residents have expressed concerns that land development and parking regulations in the commercial areas need to be revised for improved traffic and parking management. Where parking supply and demand become misaligned, economic and recreational opportunities become inhibited, and residents' quality of life is strained. The Town of Palm Beach is an island community and a destination for visitors because of its natural and architectural quality and unique culture within short, walkable distances. While providing for excellent walkable community fabric, the compact geography also exacerbates impacts from parking demands that are not managed to the best practicable standards.



To improve the quality of life and economic viability of the commercial areas, The Corradino Group recommends that the Town consider revising policies, regulations and future infrastructure development with a data-driven approach. The Commercial Parking Study was performed in response to the following four overarching questions.

- 1. How much parking is provided in the study area?
- 2. How parking is being utilized and if demand exceeds capacity?
- 3. Can changes in the land use and parking regulations affect parking and traffic impacts, with particular attention to the unique parking patterns of restaurants versus retail and other commercial uses?
- 4. Are there management strategies to better utilize existing infrastructure if demand and supply are locationally misaligned?

## PARKING SUPPLY

- There is adequate supply for both commercial parking study districts when considered on a district-wide basis; however, particularly within the South Commercial Parking Study District, there are localized shortages caused by the combined effects of street circulation patterns, destination locations, the distribution of parking within the district, and lack of parking information to visitors.
- The parking supply includes the spaces allocated to valet parking. Valet parking
  provides an alternative way to access parking and can reduce traffic caused by cars
  circulating to find parking. For the visitor, valet is a convenience. For the destination
  business owners, valet operations are good business by providing a desired service
  to their patrons and assurance that patrons don't balk due to the apparent lack of
  convenient parking. The valet operations do not increase the supply of parking in the
  commercial districts of the Town because they use parking areas that are generally
  within the respective commercial districts.
- On weekends, Worth Avenue on-street parking is full, and off-street parking is near capacity west of South County Road; however, there is adequate available supply elsewhere within the district.
- On weekdays there is a localized lack of capacity near Brazilian Avenue west of South County Road.
- Supply and demand are misaligned either locationally, by ownership, or by management.



- Additional capacity is not required for the entirety of each district. Management strategies that better utilize available parking areas can alleviate parking issues.
- Community expectations for walk distance are very short, as evidenced by the large number of valet operations. A well-managed valet is a good choice for management at high-priced establishments.

### PARKING POLICY: ZONING CODE, REDEVELOPMENT, AND LEGACY<sup>2</sup> BUILDINGS

Like other exclusive communities, the Town's zoning requirements about parking are more conservative, requiring more parking spaces than is typical to assure the highest level of convenience for its residents and viable service for its businesses. This also mitigates some of the effect of historic and other older buildings that continue to operate as an important part of the commercial districts with legacy parking supplies dating back to when they were built. The following characteristics were noted:

• The Town's zoning code parking requirements are generally enforceable, using units of development such as floor area or bedroom counts, and not dependent on person counts which are used in other places and difficult to administer.

• Parking incentives are not a focus in the Town's zoning code for new development, as the parking requirements support higher increased parking supply to respond to community needs.

# 2.6 VALET PARKING OPERATIONS ANALYSES

The Town of Palm Beach requested a valet parking analysis at 18 specific restaurant locations in the Town. Corradino received the following specific restaurant locations to collect valet parking queue data:

- 1. Meat Market Steak House
- 2. Echo Palm Beach
- 3. Palm Beach Catch
- 4. Lola 41 Palm Beach
- 5. Trevini Ristorante
- 6. Cucina Palm Beach
- 7. Henry's Palm Beach
- 8. Almond Palm Beach
- 9. Carriage House Club

<sup>&</sup>lt;sup>2</sup> The term is to refer to buildings that are NOT subject to the current zoning code; therefore, grandfathered buildings with regard to parking.



- 10. La Goulue Palm Beach
- 11. Buccan Palm Beach
- 12. Bricktops Palm Beach
- 13. Pizza Al Fresco
- 14. Bice Ristorante
- 15. Club Colette
- 16. Café Via Flora
- 17. Ta-boo Restaurant
- 18. Le Bilboquet Palm Beach

Valet parking queue data was collected in one-minute intervals and maximum queues were documented during the weekday peak period on Monday, April 17<sup>th,</sup> and Friday, April 21<sup>st,</sup> between 5:00 to 8:00 PM and during the peak period on Saturday, April 15<sup>th,</sup> between 5:00 to 9:00 PM.

## 2.6.1. VALET PARKING DATA COLLECTION AND VALET PARKING ANALYSIS

The following is a summary of the valet parking queue data collection and valet parking analysis for each of these restaurant locations.

### Location #1- Meat Market Steakhouse: Bradley Place and Seminole Avenue

The Meat Market Steakhouse located at 191 Bradley Place, Palm Beach, Florida is the initial restaurant location. Figures 29 and 30 depict the restaurant location at the southeast corner of Bradley Place and Seminole Avenue and the existing on-street parking along both roads. The approved valet parking schematic is included in **Appendix G**.





Figure 29 Valet Stand- Meat Market Steakhouse

The following are the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period- 60 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period- 4 vehicles (at 6:44 ٠ PM.)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period- 229 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period-7 vehicles (at 7:01 PM.)

The weekday peak queue of 4 vehicles lasted no longer than 60 seconds, with the queue decreasing to 3 vehicles for an additional 2 minutes. The weekend peak queue of 7 vehicles lasted no longer than 60 seconds but decreased to between 3 to 5 vehicles for an additional 4 minutes. The snapshot queue table with the detailed valet parking queue data is provided in Appendix G.



Figure 30 Valet Parking: Destination Location- Meat Market Steakhouse

#### Location #2- Echo Palm Beach: Sunrise Avenue

The Echo Palm Beach, located at 230A Sunrise Avenue, Palm Beach, Florida is the next restaurant location. Figures 6 depicts the restaurant location along Sunrise Avenue. The valet stand is in front of the restaurant on Sunrise Avenue. Figures 31 and 32 depict the on-street parking spaces and the on-site parking lot/garage being utilized for the valet parking. The approved parking agreement includes details regarding exclusive use of certain parking spaces within the garage during different times of the day and collectively with other tenants within the vicinity. A copy of the valet parking agreement and parking schematic is included in **Appendix G**.





Figure 31 Valet Stand- Echo Palm Beach

The following are the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period -31 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 1 vehicle (numerous times; at 5:59 PM.)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period 146 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 6 vehicles (at 6:45 PM.)

The weekday peak queue of 1 vehicle lasted no longer than 180 seconds with the queue decreasing to 0 after 3 minutes. The weekend peak queue of 6 vehicles lasted no longer than 60 seconds but decreased to 3 to 4 vehicles for an additional 6 minutes. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.





Figure 32 Valet Parking: Destination Location- Echo Palm Beach

## Location #3-Palm Beach Catch: Sunrise Avenue

The Palm Beach Catch located at 251 Sunrise Avenue, Palm Beach, Florida is the next restaurant location. Figure 9 depicts the restaurant location along Sunrise Avenue. The valet stand is in front of the restaurant on Sunrise Avenue. Figure 33 depicts the on-street parking spaces and the nearby Bank's surface parking lot, which was observed to be utilized for the valet parking operations during the field review. Based on the received handwritten valet parking schematics, "red zone" parking spaces are being used for the Palm Beach Catch valet drop-off operations and will utilize the on-street parking along Sunrise Avenue.

The following are the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period 20 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 1 vehicle (numerous times)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period 63 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 3 vehicles (at 7:40 PM.)



The weekday peak queue of 1 vehicle lasted no longer than 60 seconds with the queue decreasing to 0 after 2 minutes. The weekend peak queue of 3 vehicles lasted no longer than 60 seconds but decreased to between 1 to 2 vehicles for an additional 2 minutes. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.



Figure 33 Valet Parking: Destination Location- Palm Beach Catch

### Location #4-LoLa 41: Sunset Avenue

Lola 41, located at 290 Sunset Avenue, Palm Beach, Florida, is the next restaurant location. Figure 12 depicts the restaurant location at the southeast corner of Sunset Avenue and Bradley Place. The valet stand is in front of the restaurant along Bradley Place. Figure 34 depicts the onstreet parking spaces used for the valet pick-up and drop-off. The approved valet parking schematic identifies the valet route, which is from the pick-up/drop-off location on Bradley Place and then eastbound along Sunset Avenue to the Paramount Parking lot, southbound on N. County Road and then westbound along Royal Poinciana Way back to Bradley Place. A copy of the valet parking schematic is included in **Appendix G**.





Figure 34 Valet Stand- LoLa 41

The following are the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period- 36 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 2 vehicles (at 7:29 PM)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period 202 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 4 vehicles (numerous times at 6:31 PM, 6:34 PM and 8:42 PM)

The weekday peak queue of 2 vehicles lasted no longer than 60 seconds, with the queue decreasing to 1 vehicle after 3 minutes. The weekend peak queue of 4 vehicles lasted no longer than 60 seconds but decreased to between 1 and 3 vehicles for an additional 2 minutes. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.



#### Location #5-Trevini: Sunset Avenue

Trevini which is located at 223 Sunset Avenue, Palm Beach, Florida is the next restaurant location. Figure 35 depicts the restaurant location along Sunset Avenue west of N. County Road. The valet stand is in front of the restaurant along Sunset Avenue. There is a parking garage adjacent to the restaurant that is used for the valet parking operation. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.



Figure 35 Valet Parking: Destination Location- Trevini

The following is the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period 175 vehicles
  - o Peak One Minute Vehicles in Queue During Peak Period 8 vehicles (at 7:00 PM.)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period -101 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 3 vehicles (numerous times; at 6:32 AM, 6:57 AM, 7:05 PM, 7:42 PM and 8:29 PM.)

The weekday peak queue of 8 vehicles lasted no longer than 60 seconds with the queue decreasing to 3 to 6 vehicles for the next 10 minutes. The weekend peak queue of 3 vehicles lasted no longer than 60 seconds but decreased to 1 vehicle for an additional 1 to 2 minutes. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.



#### Location #6-Cucina Palm Beach: Royal Palm Way

Cucina Palm Beach, which is located at 257 Royal Poinciana Way, Palm Beach, Florida is the next restaurant location. Figure 36 depicts the restaurant location along the north side of Royal Poinciana Way east of Bradley Place. The valet stand is in front of the restaurant along the north side of Royal Poinciana Way. The angled on-street parking spaces along eastbound and westbound Royal Poinciana Way are used for the valet parking operation. A copy of the valet parking schematic is included in **Appendix G**.



Figure 36 Valet Stand- Cucina Palm Beach

The following is the peak queue results from the valet parking queue data collection.

- Weekday (04/21/23) Total Vehicles in Queue During Peak Period 15 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 1 Vehicle (numerous locations).
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period 19 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 2 vehicles (8:26 PM.)

The weekday peak queue of 1 vehicle lasted no longer than 60 seconds. The weekend peak queue of 2 vehicles lasted no longer than 60 seconds and decreased to 0 after 1 to 2 minutes. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.



#### Location #7- Henry's Palm Beach: Royal Palm Way

Henry's Palm Beach, located at 229 Royal Poinciana Way, Palm Beach, Florida, is the next restaurant location. Figure 37 depicts the restaurant location along the north side of Royal Poinciana Way east of Bradley Place. The valet stand is in front of the restaurant along the north side of Royal Poinciana Way. There is a sub-basement parking garage located in the 221 & 231 Royal Poinciana and 214 & 216 Sunset Avenue mixed use building. These parking spaces and the angled and parallel on-street parking spaces along Royal Poinciana Way are used for the valet parking operation. Figure 30 depicts the restaurant location and the on-street parking spaces that may be used for the valet pick-up and drop off.



Figure 37 Valet Stand -Henry's Palm Beach



The following is the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period 6 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 1 vehicle (at numerous times).
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period- 89 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 7 vehicles (at 8:40 PM.)

The weekday peak queue of 1 vehicle lasted no longer than 60 seconds, and the queue decreased to 0 within the next 60 seconds. The weekend peak queue of 7 vehicles lasted no longer than 60 seconds but decreased to 1 vehicle for an additional 1 minute. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.

### Location #8- Almond Palm Beach: Royal Palm Way

Almond Palm Beach, located at 207 Royal Poinciana Way, Palm Beach, Florida, is the next restaurant location. Figure 38 depicts the restaurant location and on-street parking that may be used for the valet pick-up and drop-off along the north side of Royal Poinciana Way. The valet stand is in front of the restaurant along the north side of Royal Poinciana Way. Angled and parallel on-street parking spaces along Royal Poinciana Way are used for the valet parking operation.





Figure 38 Valet Stand- Almond Palm Beach

The following is the peak queue results from the valet parking queue data collection.

- Weekday (04/21/23) Total Vehicles in Queue During Peak Period- 23 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 2 vehicles (at 7:42 PM.)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period- 21 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period- 2 vehicles (at 6:13 PM.)

The weekday peak queue of 2 vehicles lasted no longer than 60 seconds with the queue decreasing to 1 for an additional 1 to 2 minutes. The weekend peak queue of 2 vehicles lasted for 120 seconds but decreased to 0 vehicles after that timeframe. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.



#### Location #9- Carriage House Club: Royal Palm Way

The Carriage House Club which is located at 264-270 South County Road, Palm Beach, Florida is the next restaurant location. Figure 39 depicts the restaurant location along the west side of South County Road north of Royal Palm Way. The valet stand is in the nearby J.P. Morgan Chase parking lot. The vehicle drop-off and pick-up location is located at the valet stand on Royal Palm Way. The vehicles are then driven to the surface parking lot at 230 Royal Palm Way. These parking spaces are used for the valet parking operation. Figure 32 depicts the parking spaces in the 230 Royal Palm Way surface parking lot. A copy of the valet parking schematic is included in **Appendix G**.



Figure 39 Valet Stand- Carriage House Club



The following is the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period- 121 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period- 5 vehicles (at 6.:35 PM.)
- Weekend (04/22/23) Total Vehicles in Queue During Peak Period- 66 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period- 2 vehicles (at 6:13 PM.)

The weekday peak queue of 5 vehicles lasted no longer than 60 seconds with the queue decreasing to 1 to 2 vehicles for an additional 1 to 2 minutes. The weekend peak queue of 2 vehicles lasted for 120 seconds but decreased to 0 vehicles after that timeframe. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.

## Location #10- La Goulue Palm Beach: Royal Palm Way

La Goulue Palm Beach, which is located at 288 South County Road, Palm Beach, Florida is the next restaurant location. Figure 40 depicts the restaurant location which is at the southwest corner of the Royal Palm Way and South County Road intersection. The valet stand is at the front of the restaurant building. The vehicle drop-off and pick-up location is located at the valet stand. The vehicles are then driven to one of two surface parking lots behind the First Horizon Bank parking lot along South County Road and at adjacent parking lot north of Brazilian Avenue and east of South County Road. These parking spaces within the surface parking are used for the valet parking operation and are shared with Café L'Europe's evening costumers after the Bank's lot is fully vacated but not earlier than 5:30 PM. A copy of the valet parking schematic is included in **Appendix G**.



Figure 40 Valet Stand- La Goulue Palm Beach

The following are the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period- 121 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period- 5 vehicles (at 6:35 PM.)
- Weekend (04/22/23) Total Vehicles in Queue During Peak Period- 66 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period- 2 vehicles (at 6:13 PM.)

The weekday peak queue of 5 vehicles lasted no longer than 60 seconds, with the queue decreasing to 1 to 2 vehicles for an additional 1 to 2 minutes. The weekend peak queue of 2 vehicles lasted for 120 seconds but decreased to 0 vehicles after that timeframe. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.



#### Location #11- Buccan Palm Beach: South County Road

Buccan Palm Beach, located at 350 South County Road, Palm Beach, Florida is the next restaurant location. Figure 41 depicts the restaurant location at the southwest corner of the Australian Avenue and South County Road intersection. The valet stand is at the front of the Palm Beach Gallery building where Buccan resides. The vehicle drop-off and pick-up location is located at the valet stand. The vehicles are then driven to a surface parking lot which is located at the northwest corner of Chilean Avenue and South County Road. These parking spaces within the surface parking-lot are used for the valet parking operation from 5:00 pm to midnight/closing. The vehicles are dropped off at the valet stand and the vehicles are driven south on South County Road to the previously referenced surface parking lot on Chilean Avenue. The return vehicles make a loop on South County Road for vehicle pickup at the valet stand. A copy of the valet parking schematic is included in **Appendix G**.



Figure 41 Valet Parking: Destination Location- Buccan Palm Beach



The following are the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period 126 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 4 vehicles (at 7:28 PM.)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period 147 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 4 vehicles (at 8:28 PM.)

The weekday peak queue of 4 vehicles lasted no longer than 60 seconds, with the queue decreasing to 1 to 2 vehicles for an additional 2 to 3 minutes. The weekend peak queue of 4 vehicles lasted for no longer than 60 seconds but decreased to 2 vehicles for an additional 1 minute. The snapshot queue table with the detailed valet parking queue data and agreement is provided in **Appendix G**.

### Location #12- BrickTops: South County Road

BrickTops, located at 375 South County Road, Palm Beach, Florida is the next restaurant location. Figure 42 depicts the restaurant location at the northeast corner of Peruvian Avenue and South County Road. The valet stand is at the front of the restaurant along Peruvian Avenue. The vehicle drop-off and pick-up location is located at the valet stand. The vehicles are then driven to the onsite subterrain parking garage with access on Peruvian Avenue. The parking spaces in the garage are used for the valet parking operation. According to the valet schematics provided by the Town, 42 marked spaces within the parking garage are used for the valet operations. A copy of the valet parking schematic is included in **Appendix G**.



Figure 42 Valet Stand- BrickTops

The following is the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period- 75 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period- 3 vehicles (at numerous times; 6:52 PM.)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period- 175 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period- 4 vehicles (at 8:28 PM.)

The weekday peak queue of 3 vehicles lasted no longer than 120 seconds with the queue decreasing to 2 to 3 vehicles for the next 7 minutes. The weekend peak queue of 4 vehicles lasted for no longer 60 seconds but decreased to 3 vehicles for an additional 1 minute. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.

## Location #13- Pizza Al Fresco: Peruvian Avenue

Pizza Al Fresco, which is located at 14 Via Mizner, Palm Beach, Florida is the next restaurant location. Figure 43 depicts the restaurant location which is located along Worth Avenue. The valet stand is at the front of the restaurant along Worth Avenue. The vehicle drop-off and pick-up location is located at the valet stand. The vehicles are then driven to the surface parking lot at 330 Peruvian Avenue, where the restaurant has the right to park 19 vehicles between the hours of 6:00 PM and 1:00 AM seven (7) days per week, based on the agreement provided by the Town. Figures 36 and 37 depict the adjacent roadway network near the Pizza Al Fresco restaurant. A copy of the valet parking schematics and agreement are included in **Appendix G**.



Figure 43 Valet Stand- Pizza Al Fresco

The following are the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period 79 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 3 vehicles (at numerous times; 6:45 PM.)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period 318 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 6 vehicles (at 6:18 PM.)

The weekday peak queue of 3 vehicles lasted no longer than 60 seconds, with the queue decreasing to 1 to 3 vehicles for the next 8 minutes. The weekend peak queue of 6 vehicles lasted for no longer than 180 seconds but decreased to between 3 to 6 vehicles for an additional 19 minutes. The snapshot queue table with the detailed valet parking queue data and agreement is provided in **Appendix G**.

### Location #14- BICE Ristorante: Peruvian Avenue

BICE Ristorante, located at 313 Worth Avenue, Palm Beach, Florida is the next restaurant location. Figures 44 and 45 depicts the restaurant location along Worth Avenue. The valet stand is at the front of the restaurant along Peruvian Avenue. The vehicle drop-off and pick-up location is located at the valet stand. The vehicles are then driven to the surface parking lots north and south of Peruvian Avenue near the restaurant. The parking spaces in the surface parking lots are used for the valet parking operation. A copy of the valet parking schematic is included in **Appendix G**.



#### Figure 44 Valet Stand- BICE Ristorante

The following are the peak queue results from the valet parking queue data collection.

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- Weekday (04/17/23) Total Vehicles in Queue During Peak Period 118 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 4 vehicles (at 6:55 PM.)
- Weekend (04/22/23) Total Vehicles in Queue During Peak Period 211 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 4 vehicles (at 8:09 PM.)

The weekday peak queue of 4 vehicles lasted no longer than 120 seconds, decreasing to 3 to 4 vehicles for the next 4 minutes. The weekend peak queue of 4 vehicles lasted for no longer than 180 seconds but decreased to between 2 to 3 vehicles for an additional 6 minutes. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.




Figure 45 Valet Parking: Destination Location- BICE Ristorante

# Location #15- Club Colette: Peruvian Avenue

Club Colette, located at 215 Peruvian Avenue, Palm Beach, Florida is the next restaurant location. Figure 46 depicts the restaurant location along Peruvian Avenue. The valet stand is at the front of the restaurant along Peruvian Avenue. The vehicle drop-off and pick-up location is located at the valet stand. The vehicles are then driven to one of two surface parking lots near the restaurant. Club Colette has valet parking agreements with both the Apollo surface parking lot owners located at 405 Hibiscus Avenue (25 parking spaces) and the Coe and Broberg, LLP private parking lot (15 parking spaces) located at 223 Peruvian Avenue. The parking spaces in the surface parking lots are used for the valet parking operation. A copy of the valet parking schematic is included in **Appendix G**.





Figure 46 Valet Stand- Club Colette

The following are the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period 56 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 3 vehicles (at 7:00 PM.)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period 195 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 5 vehicles (at numerous times; at 6:57 PM.)

The weekday peak queue of 3 vehicles lasted no longer than 60 seconds, with the queue decreasing to 2 vehicles for the next 2 minutes. The weekend peak queue of 5 vehicles lasted for no longer than 120 seconds but decreased to between 3 to 5 vehicles for an additional 10 minutes. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**, and Figure 47 depicts the location of the Apollo surface parking lot.



Figure 47 Valet Parking: Destination Location- Club Colette (Apollo Parking Lot)

# Location #16- Café Via Flora: Worth Avenue

Café Via Flora, which is located at 240 Worth Avenue, Palm Beach, Florida is the next restaurant location. Figure 48 depicts the restaurant location which is located along Worth Avenue. The valet stand is at the front of the restaurant along Worth Avenue. The vehicle drop-off and pick-up location is located at the valet stand. The vehicles are then driven to the Apollo surface parking lot located at 405 Hibiscus Avenue near the restaurant. The parking spaces in the surface parking lots are used for the valet parking operation. A copy of the valet parking schematic is included in **Appendix G**.



Figure 48 Valet Stand- Café Via Flora

The following is the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period 20 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 1 vehicle (at numerous times; 6:10 PM.)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period 70 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 3 vehicles (at numerous times; at 6:59 PM.)

The weekday peak queue of 1 vehicle lasted no longer than 60 seconds with the queue remaining steady at 1 vehicle for the next 4 minutes. The weekend peak queue of 3 vehicles lasted for no longer 60 seconds but decreased to 2 vehicles for an additional 60 seconds. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G**.



## Location #17- Ta-boo Restaurant: Worth Avenue

Ta-boo, located at 221 Worth Avenue, Palm Beach, Florida is the next restaurant location. Figure 49 depicts the restaurant location along Worth Avenue. The valet stand is at the front of the restaurant along Worth Avenue. The vehicle drop-off and pick-up location is located at the valet stand. The vehicles are then driven to the Apollo surface parking lot located at 405 Hibiscus Avenue near the restaurant. Ta-boo has a valet parking agreement with the owners of the Apollo parking lot located at 405 Hibiscus Avenue (25 parking spaces). The parking spaces in the surface parking lot are used for the valet parking operation after 6:00 PM. A copy of the valet parking schematic is included in **Appendix G**.



Figure 49 Valet Stand- Ta-boo

The following is the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period 23 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 2 vehicles (at numerous times; 7:03 PM.)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period- 162 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period- 4 vehicles (at numerous times; at 7:13 PM.)



The weekday peak queue of 2 vehicles lasted no longer than 60 seconds, with the queue decreasing to 1 vehicle for the next 60 seconds. The weekend peak queue of 4 vehicles lasted for no longer than 120 seconds but decreased to between 1 and 4 vehicles for an additional 20 minutes. Appendix G provides the snapshot queue table with the detailed valet parking queue data, and Figure 50 depicts The Apollo surface parking lot.

It should be noted that based on recent discussions with Town staff, Ta-boo Restaurant has closed its operations; however, at the time the valet queuing data was collected, the restaurant was open for business.



Figure 50 Valet Parking: Destination Location- Ta-boo (Apollo Parking Lot)



#### Location #18- Le Bilboquet: Worth Avenue

Le-Bibloquet, located at 245a Worth Avenue, Palm Beach, Florida is the next restaurant location. Figure 51 depicts the restaurant location along Worth Avenue. The valet stand is at the front of the restaurant along Worth Avenue. The vehicle drop-off and pick-up location is located at the valet stand. The vehicles are then driven to the Apollo surface parking lot located at 405 Hibiscus Avenue near the restaurant. Le Bilboquet has a valet parking agreement with the owners of the Apollo parking lot located at 405 Hibiscus Avenue. The parking spaces in the surface parking lot are used for the valet parking operation. A copy of the valet parking schematic is included in **Appendix G**.



Figure 51 Valet Stand- Le Bibloquet



The following is the peak queue results from the valet parking queue data collection.

- Weekday (04/17/23) Total Vehicles in Queue During Peak Period 130 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 4 vehicles (at numerous times; 5:53 PM.)
- Weekend (04/15/23) Total Vehicles in Queue During Peak Period 309 vehicles
  - Peak One Minute Vehicles in Queue During Peak Period 7 vehicles (at numerous times; at 8:23 PM.)

The weekday peak queue of 4 vehicles lasted no longer than 60 seconds with the queue decreasing to between 2 and 4 vehicles for the next 12 minutes. The weekend peak queue of 7 vehicles lasted for no longer 60 seconds but decreased to 3 vehicles after an additional 60 seconds. The snapshot queue table with the detailed valet parking queue data is provided in **Appendix G** 

Based on the results of the observations at all 18 restaurant locations #1 Meat Market, #2 Echo Palm Beach, #5 Trevini, #13 Pizza Al Fresco, #14 Bice, #15 Club Colette experienced long queues and existing Town records documented in Appendix G do not provide sufficient information to validate the existing approved valet operations for the majority of the eighteen (18) restaurants assigned. There are periods of time at the 300 block of Peruvian Avenue where there is a bottleneck created due to numerous valet parking management and staging. This bottleneck occurs due to Renatos, BiCE Ristorante and an event being held at the Preservation Foundation of Palm Beach.

The Town of Palm Beach Police Department monitors the approved valet parking operations at the authorized commercial locations throughout the Town. The approved valet operations are monitored daily by the watch commander of the Town of Palm Beach Police Department as part of their valet parking enforcement strategies to ensure that there are no violations. The Town of Palm Beach Police Department understands the use of private parking lots in the valet parking operations for authorized commercial locations. The Town of Palm Beach Police Department understands the use of private parking lots in the valet parking operations for authorized commercial locations. The Town of Palm Beach Police Department monitors the number of approved spaces in these private parking lots. If code compliance issues are observed, the Town of Palm Beach Police Department will issue a warning. If the code compliance issues are not resolved after the warning is issued, the current approved valet parking operations can be subject to reevaluation by the Town Council. A copy of the current Town's Valet Parking Permit Application is also included in **Appendix G**.

# RECOMMENDATIONS

The Corradino Group, Inc. was hired on behalf of the Town of Palm Beach (Town) to prepare this traffic and parking study. The traffic and parking study included an evaluation of the following items:

- Traffic Analysis Trip Generation Comparison
- Traffic Analysis Traffic Operational analysis at 24 intersections (signalized and unsignalized) within the Town.
- Traffic Analysis- One Way Analysis of South Lake Drive between Royal Palm Way and Peruvian Avenue
- Traffic Analysis- Seaview Avenue Traffic Operations/Conditions
- Traffic Analysis Origin Destination of historical traffic patterns of external and internal trips within the Town
- Parking Analysis- Evaluation of parking supply, parking utilization and parking strategies of the Town Commercial Areas.
- Valet Parking Analysis at 18 restaurant locations selected by the Town.

The following is a summary of the results and recommendations for each scope item.

# 1. Traffic Analyses

# 1.1 Trip Generation Comparison

There are no recommendations from this section of the study as this was a request to provide a general idea of the number of potential trips that may be generated by different land uses and different intensities.

# 1.2 Intersection Capacity Analysis

Based on the results of the traffic operation analyses completed utilizing Synchro Software that include signal timing modifications, such as corridor coordination, cycle length modifications during certain peak periods, green time modifications, and other timing modifications, as provided by Town staff, all signalized intersections operate (2024), and will continue to operate (2029) at an acceptable level of service (LOS) D or better during the three (3) analyzed peak periods. The Town should consider the following:



- Complete annual evaluations of the Adaptive Traffic Control System (ATCS) that provides the Level of Service (LOS) and Average Delay – Seconds/Vehicle as well as other traffic signal performance measures from the Econolite Centracs SPM module. As the ATCS' objective is to provide optimized signal timing plans based on real-time traffic demands and Synchro Software does not model proprietary algorithms from the Econolite Centracs Edaptive Signal Control System.
- Continue to monitor queue lengths at signalized intersections to make sure adequate capacity is provided to meet the travel demand.
- Complete a corridor study of Sunset Avenue between Bradley Place and North County Road. This study should evaluate the corridor's traffic operations after the conversion from two-way to one-way operations. It should also review the traffic operations at the existing Publix driveway connections to Sunset Avenue. Aerial drone technology should be utilized to capture actual field conditions during peak hours.
- Complete a traffic signal warrant study at the Sunset Avenue and Bradley Place intersection per MUTCD criteria. The study should be completed if Sunset Avenue reverts to a two-way corridor between Bradley Place and North County Road.
- Coordinate with FDOT and the United States Coast Guard to make the reduced peak period drawbridge openings permanent. This should include modifications to the mid-afternoon peak hour between 3:00 and 4:00 p.m.
- Increase the number of road segments to evaluate as part of the Town's Annual Roadway Level of Service Evaluation. This should include key local road segments in addition to the 14 currently evaluated.
- Complete a field queueing evaluation during peak season at the following road segments:
  - Cocoanut Row- Royal Palm Way south to Chilean Avenue
  - o Cocoanut Row- Royal Palm Way north to Seabreeze Avenue
  - o Bradley Place/N. Lake Way- Royal Poinciana north to Wells Road
  - o South County Road- Royal Poinciana to Oleander Avenue

Aerial drone technology should be utilized to capture actual field conditions during peak hours.



#### 1.3 South Lake Drive One-Way Analysis

The results of the 2029 future scenario using Synchro Software, revealed that no significant impacts to the adjacent roadway network are expected with the proposed conversion of South Lake Drive to a southbound direction-only corridor. The signalized intersection of Cocoanut Road and Royal Palm Way, where most of these trips will be absorbed, would continue to operate at an overall acceptable LOS D or better for the forecasted 2029 traffic conditions. Should the Town decide to move forward with this proposed traffic pattern along South Lake Drive, local service agencies such as fire, police, and emergency medical services personnel, need to be involved early on during this process. The necessary signage and pavement markings will need to be installed along the corridor and at all approaching movements intersecting the corridor.

# 1.4 Seaview Avenue Traffic Operations/Conditions

Based on the results of the traffic operations at the un-signalized intersections of S.County Road and Seaview Avenue and Cocoanut Row and Seaview Avenue during the AM, MID, and PM peak periods for the existing 2024 and forecasted 2029 traffic conditions all individual approach movements are expected to operate at an acceptable LOS D or better. Based on the field review observations, Palm Beach Day Academy experiences longer vehicular queues along Seaview Avenue that continue north on S. County Road to Seaspray Avenue on the southbound (SB) outermost lane of S.County Road, while the innermost southbound travel lane continues to flow. The Town may consider the following:

 Explore the possibility of restricting on-street parking, not related to the school's pick-up operations, along Seaview Avenue during the school's dismissal period, and allow these on-street parking spaces to serve as additional staging areas for students' pick-up.

#### 1.5 Origin Destination Analysis

There are no recommendations from this section of the study as this was a request to provide the answers that have been included under the findings section.

#### 2. Parking Analysis

The Corradino Group, Inc. is familiar with the Town's (6) Point Parking Program, that is currently being developed and refined. A number of our proposed parking recommendations align with the 6 key points of the program.



The key elements of the (6) Point Parking Program, are identified as follows:

- Part 1: Expansion of paid parking in the business district, from Barton Avenue to Hammon Avenue
- Part 2: Palm Beach Resident Parking Decals.
- Part 3: Valet Parking on Worth Avenue and South County Road.
- Part 4: Signage to direct drivers to Parking Opportunities.
- Part 5: Free 30-minute Parking Spaces for added Convenience.
- Part 6: Long-term Goal of Building a Parking Facility in the Business District.

Based on the results of the completed parking evaluations, the Town should consider the following parking recommendations.

# Parking Supply

 At this time, we do not recommend additional capacity to be built until management strategies are implemented to more efficiently utilize the existing the existing parking supply in the South Commercial Parking Study District or in the North Commercial Parking Study District.

# Parking Management

- Implementation of Dynamic Parking Wayfinding via smartphone applications for residents and visitors parking. Dynamic wayfinding means that the application keeps track of the nearest location of a parking space in real time and can guide the driver along the quickest path to the space. The same application may also be used to reserve a space ahead of time. Without the need for physically posted signage, the application can also manage demand by varying the cost of spaces as well as the parking duration rules, and even can vary the price based on parking duration, such as discounting the first hour or half hour to incentivize faster turnover, especially at on-street locations where higher turnover is desired.
- Adoption of an app-based paid parking system applicable to all public parking spaces throughout both business districts. The Town should also pursue agreements to integrate large parking facilities into the program. The app-based system should include the following functionalities:
  - Dynamic tracking of parking supply, occupancy, and time until empty.
  - Establish maximum parking durations that can be adjusted to manage utilization within the districts.



- Variable pricing to manage demand.
- Variable pricing to manage turnover, such as discounted initial parking rates that scale up the longer a vehicle remains.
- Easy and convenient touch-free payments for the consumer, with notifications when time is getting low.
- Ability to integrate a residential tag program by permitting long term and overnight parking for residents and their guests, but not other visitors.
- Ability to implement an employee program be permitting long-term day parking for employees.
- Revenue tracking for the Town.
- Enforcement notifications to identify vehicles that remain in a space overtime.
- Provide management data to the Town on a monthly basis to support the Town's ongoing parking management, and to identify localized and temporary shortages.

# Parking Policy:

- A review of the current Town's zoning code towards the following changes:
  - The zoning code should reinforce shared parking as a way to better utilize empty spaces within the walksheds of destinations. Along with new commercial or mixed-use development applications and approvals, public private partnerships for shared parking capacity can create a long-term program to provide additional parking supply.
  - Legacy buildings should be identified and listed along with their as-built parking supply and the shortfall compared to current regulations, and data should be tracked according to the uses that occupy these buildings. Legacy building parking needs should be considered for inclusion into the app-based parking management system to provide for their needs in a managed way.
  - If intercept parking with micro-transit is chosen as a solution at a future time, then code requirements may include in-lieu impact fees that new development may pay instead of providing on-site parking. Intercept parking is the location of a major parking facility that is close to the access point of the district and allows visitors to park without entering the district



by car. This reduces the amount of traffic caused by circulating to find a parking space and allows for a more enjoyable pedestrian environment. It also maintains the historic character of the commercial districts by supporting off-site alternatives to surface parking and expensive structured parking diminished the ability for new developments to de designed with compatible architectural character.

## Valet Parking Analysis

Based on the results of the valet parking queuing operational analysis and review of the valet parking schematic diagrams on file at the Town, the following recommendations should be considered by the Town and are provided in short-term, mid-term and long-term efforts.

- Short-Term:
  - Develop a valet parking operational plan methodology (policy/code update). The valet parking methodology should be requested from the applicant/owner and should include detailed information on the proposed valet routing plan, anticipated queueing, pick-up/drop-off operations including valet stand location and the number of valet operators as well as specific details regarding the use of off-site surface parking lots or parking garages in the valet parking operations and the number of parking spaces allocated and/or necessary for the same.
  - Create a GIS layer of existing approved valet parking locations within the Town. Populate the GIS layer with parking requirements for each commercial location, assigned parking spaces/lots, etc. For example, there were several restaurant owners that use the Apollo Parking lot for their valet operations. There should be a parking inventory of how many parking spaces in surface parking lots or garages are already accounted for in these approved valet operations.
  - Continue to review each valet parking permits/agreements annually and make any necessary modifications where necessary. The Town of Palm Beach Police Department will also reevaluate the internal valet parking policies and processes and make any necessary modifications to ensure a comprehensive code enforcement process is implemented. Use aerial drone technology periodically to monitor and document valet operations



during peak periods to ensure the valet plan on file as part of the permit is working as intended.

- Mid-Term:
  - Request that existing restaurant owners provide the valet parking operational plan per the Town's approved methodology.
- Long-Term:
  - Create an overall valet parking circulation master plan per District that can be reviewed and updated by Town staff as necessary.



# TOWN OF PALM BEACH TRAFFIC ANALYSES AND COMMERCIAL AREAS PARKING STUDY **Appendices**