

SPEATH ENGINEERING

Civil Engineers

August 21, 2025

Nicholas DeFilippo, Planner
Lee County Department of Community Development
1500 Monroe St
Fort Myers, FL 33901

RE: Port Pheonix Water Way Marina – DCI2023-00054 – Major PD

Dear Mr. DeFilippo,

Please find below responses and commentary to the provided comments from staff in your July 18th, 2025 letter regarding the Commercial Planned Development Application for Port Pheonix Water Way Marina (DCI2023-00054).

We would like to bring to the reviewer's attention a modification made to the Master Concept Plan (MCP) specifically in the southwest corner of the Valet Parking lot. This revision has been implemented to address Deviation 2 from Section 10-416(d)(6), which mandates a berm or solid wall of no less than 8 feet in height for roads, drives, or parking areas located within 125 feet of a residential property. To comply with this requirement, we have incorporated a 10-foot-wide landscape buffer designed to shield the single-family residential development across the canal from the valet/employee parking lot. Furthermore, we have itemized this deviation to be included in the schedule of deviations as Deviation 2f. For detailed information, please refer to the southwest corner of the MCP and the updated schedule of deviations, which reflect this revision as outlined in this correspondence.

Documents Included in this Submittal:

- This response letter
- MCP
- Parking study
- TIS
- Schedule of Deviations
- Property Development Regulations Table

ZONING

1. *REPEAT COMMENT: The darkened line showing the area to be rezoned on the MCP does not match the legal description of the area to be rezoned. Please see the legal description and revise the darkened line on the MCP to match.*

Please refer to the revised MCP, where the L-shaped section has been removed from the area to be rezoned. This revision ensures that the plans now align with the Z-06-065 approved sketch and legal description, as well as the legal description in the DCI2023-00054 case file. Note, the latest sketch and legal description does not contain this L-shape portion and is correct as previously filed.

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10491 SIX MILE CYPRESS PARKWAY * SUITE 280 * FORT MYERS * FLORIDA 33966
(305) 834-4213 * (239) 365-1005

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2. *Please confirm whether the Owner/Applicant Signature Authorization signed by "John Ray - Chief Transaction Officer" needs to be updated.*

The Owner/ Applicant Signature Authorization has been confirmed. The document does not need to be updated.

Solid Waste

1. *The proposed dumpster enclosure location does not appear to provide sufficient accessibility. It is recommended to provide 65' of unobstructed collection access.*

Acknowledged. Per coordination with the reviewer this is not a zoning insufficiency and will be addressed at the time of the Development Order.

TIS

1. *REPEAT COMMENT: Per the coordination meeting on 5/31/2024, The MCP uses and square footages are not consistent with the TIS. The outdoor seating should be included in the trip generation for the retail portion. There also appears to be a call out for 3,050sf of consumption on premise within the loading zone, please clarify. Staff also requests the square footage breakdown for the restaurant and outdoor seating to be clear and match the information provided on the TIS or revise the TIS to match the MCP. (This has yet to be addressed. Where is the COP square footage being allocated?)*

The 2,150 SF outdoor COP has been added to the updated trip generation and included with the Land Use Code 932 "High-Turnover Restaurant" per the direction of staff. The 3,200 SF interior COP is an area of the private member lounge and is fully contained within the total 4,525 SF of total private member lounge area; this has been clarified in the updated traffic study. The traffic study has also been updated for new 2024 concurrency data.

Parking Study

2. *Notwithstanding the statement in the Parking Study under the Site Plan Heading that "The site layout has been maximized to support the proposed land uses, traffic circulation, parking, setback and landscaping requirements. The site also needs adequate space to allow for the transportation of boats within the site. There is no additional space available to provide additional self-parking spaces." and the Statement in the Response Letter under the TIS Heading "The site in the proposed configuration cannot support additional parking. The physical and code-required site constraints would result in a similar number of parking spaces even with a site reconfiguration." Please demonstrate why the site cannot be redesigned to accommodate the required number of parking spaces for the proposed uses. Please review and revise the MCP, Project Deviation Request, and Parking Study accordingly. (12/12/2020 ME & 7/18/2025 JM)*

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Site programming, uses, and layout have been reviewed and coordinated between the lease holder, landlord, and surrounding community. As such, although admittedly possible, at this time the applicant does not wish to make any further reductions or changes in site programming and wishes to proceed with the uses as presented. The parking study, deviations, and other coordinated site improvements, in conjunction with communication with staff have been provided to best justify the current request. The current request is to proceed with the current plan, configuration, and uses as outlined.

3. *The MCP indicates there is 4,635 SF of Storage in the Maintenance and Member Building. Please declare on the MCP the Use that the Storage is accessory too. Please provide parking in the study for the storage as required. Please review and revise the MCP and Parking Study accordingly. (7/18/2025 JM)*

The 4,635 SF of Storage in the Maintenance and Member Building is an accessory use to the boat repair and service area. The boat repair and service area parking requirement is based on the number of service bays and employees, not square footage. Two loading zones are provided around the Maintenance and Member Building to provide adequate space for deliveries.

4. *The Project Deviation Request indicates a different required parking than the Parking Study. Please review and revise the Project Deviation Request and Parking Study accordingly. (7/18/2025 JM)*

We have updated the project deviation request located within Appendix D of the Parking study as well as the Schedule of deviations to the correct number of parking spaces. In addition to this we have revised the Property Development Regulations table to mimic the same required parking count calculations as outlined in the parking study.

5. *During the Parking Study Methodology Meeting on 3/17/2025 the applicant indicated as a condition of granting this Parking Reduction Relief they would provide the following conditions. Please review and revise the Proposed Conditions and Parking Study accordingly. (7/18/2025 JM)*

Discussion was added under the Parking Demand Analysis section stating that valet parking would be provided on-site allowing for vehicles to be stacked, which would increase the parking capacity during peak parking periods, and that Tow Away signs with the name and contact info for the tow company will be posted along Inlet Drive and Harbour Lane.

- a. *First Condition: Parking Plan defining the procedures to mitigate the parking demand in the event that the parking demand exceeds the provided parking spaces. We discussed having the valet parking attendant park all the vehicles on site when the demand exceeds the provided parking spaces utilizing stacked parking methods to increase the amount of parking possible on site. (7/18/2025 JM)*

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Please refer to the comment 5 response above.

- b. *Second Condition: On Inlet Drive and Harbour Lane, provide No Parking Tow Away Zone signage providing the name and telephone number of the tow company responsible for towing. (7/18/2025 JM)*

Call outs requiring No Parking Tow Away Zone signage have been added to the MCP. Specific sign locations and details will be provided at the time of Development Order.

Please do not hesitate to contact me at 239-365-1005 or at mspeath@speathengineering.com if you require any further information or if there are any questions related to this submittal.

Sincerely,



Matthew S. Speath, P.E.

SCHEDULE OF DEVIATIONS

- 1. Deviation from 10-416 (c)(2): requiring internal and end landscape islands within parking lot areas to allow a for an unobstructed parking lot area at the southwest corner of the development with no landscaping for the purpose of maintaining an operable boat triage staging area.**

The intent of deviating from the outlined sections above is to allow the employee and valet parking lot to act as a boat triage area during emergencies with unobstructed work in the vicinity of the southwest portion of the proposed project. The area between the boat lift well (to be utilized only in emergencies), and the maintenance building, is intended to be utilized for this boat triage purpose. The proposed open area is proposed to be screened by buffers from adjoining residential properties, and will have no adverse effects to the health, safety, and welfare of the public; while simultaneously providing a service to the community and County during post-storm cleanups.

- 2. Deviation from section 10-416 (d)(6) required combination berm and solid wall of no less than 8' in height for roads, drives or parking areas situated within 125 feet of a residential property, to allow for the following (2a-2e) outlined deviations.**

The intent of deviating from the outlined section above is to allow the following: There are 5 sections throughout the proposed development where the buffer requirements are not able to meet the standard outlined in section 10-416(d)6). Please see below 2A. through 2E for each itemized buffers and related deviation requests.

2a.) Deviation from section 10-416 (d)(6) requiring a combination berm and solid wall of no less than 8' in height for roads, drives or parking areas situated within 125 feet of a residential property, to allow for no buffer along the first 100 feet in length of drive.

The intent of deviating from the outlined section above is to allow for no buffer along the first 100 feet in length of project access drive, in order to keep the entrance in its original and current configuration without impacting the de facto secondary frontage yards of the two adjoining properties (north and south). The entrance driveway to the subject property (part of this CPD request) is situated on a 50-foot wide strip between two single-family residences. This portion of the entrance drive to the proposed project is currently constructed, and mirrors the remainder of Inlet Drive, however this small strip of land that acts as access to the subject property is actually a part of the overall CPD property assemblage, not right-of-way. Currently and historically this 50' wide portion of property has operated the same as the remainder of inlet drive, with even one neighbor having driveway connecting to the existing subject property entrance drive and both neighbors having lawns which currently extend to the edge of the existing asphalt.

2b.) Deviation from section 10-416 (d)(6) required combination berm and solid wall of no less than 8' in height for roads, drives or parking areas situated within 125 feet of a residential property, to allow a varying width landscape buffer of 12 to 30 feet.

The intent of deviating from the outlined section above is to allow a varying width landscaped buffer of 12 to 30 feet wide along the Northwestern property line for the access drive situated less than 125 feet away from the adjacent residential properties. All other additional Type F requirements shall be met including 10 trees per 100 linear feet and a double row hedge at a minimum height of 4'

2c.) Deviation from section 10-416 (d)(6) required combination berm and solid wall of no less than 8' in height for roads, drives or parking areas situated within 125 feet of a residential property, to allow a varying landscape buffer of 4 to 33 feet.

The intent of deviating from the outlined section above is to allow a varying width landscaped buffer of 4 to 33 feet wide along the Northwestern property line, for the access drive situated less than 125 feet away from the adjacent residential properties. The buffer will consist of the type F code requirements with 10 trees per 100 linear feet and a double row hedge at a minimum height of 4'.

2d.) Deviation from section 10-416 (d)(6) required combination berm and solid wall of no less than 8' in height for roads, drives or parking areas situated within 125 feet of a residential property, to allow a varying width landscape buffer of 9 to 15 feet.

The intent of deviating from the outlined section above is to allow a varying width landscaped buffer of 9 to 15 feet wide along the western property line, with parking situated 118 feet away from the adjacent residential properties to the northwest. Given the distance to the edge of the residential properties is only slightly under the requirement of 125', we are requesting a reduction in the required buffer. (For reference example, the parking situated 118' away would require no buffer at all if moved an additional 7'. The buffer will consist of the type F code requirements with 10 trees per 100 linear feet and a double row hedge at a minimum height of 4'.

2e.) Deviation from section 10-416 (d)(6) required combination berm and solid wall of no less than 8' in height for roads, drives or parking areas situated within 125 feet of a residential property, to allow an 8-foot-wide landscape buffer.

The intent of deviating from the outlined section above is to allow an 8-foot-wide landscape buffer along the southern property line to screen the proposed valet parking area, with parking situated 110 feet away from the adjacent residential properties to the South. Given the distance to the edge of the residential properties is only slightly under the requirement of 125', we are requesting a reduction in the required buffer. (For reference example, the parking that is situated 110' away would require no buffer at all if moved an additional 15'). The buffer will consist of the type F code requirements with 10 trees per 100 linear feet and a double row hedge at a minimum height of 4'.

2f.) Deviation from section 10-416 (d)(6) required combination berm and solid wall of no less than 8' in height for roads, drives or parking areas situated within 125 feet of a residential property, to allow a landscape buffer width of 10 feet.

The intent of deviating from the outlined section above is to allow an 10-foot-wide landscape buffer along the western property line, with parking situated 115 feet away from the adjacent residential properties to the northwest. Given the distance to the edge of the residential properties is only slightly under the requirement of 125', we are requesting a reduction in the required buffer. (For reference example, the parking situated 115' away would require no buffer at all if moved an additional 7'. The buffer will consist of the type F code requirements with 10 trees per 100 linear feet and a double row hedge at a minimum height of 4'.

- 3. Deviation from section 34-935(f)(1)(e) buildings may be as tall as 45 feet above minimum flood elevation with no more than three habitable stories, to allow a building height of 57' above BFE.**

The intent of deviating from the outlined section above is to allow a building height of 57' above BFE for the proposed boat barn. This property development includes only one structure that will not meet the height requirement set forth by code, which is the indoor dry-stack boat storage boat barn. The intent is to deviate from the requirement of a maximum 45' building height for the proposed dry slip Boat Barn to exceed this height requirement at a maximum height of 57 feet above base flood elevation. No other proposed structures for this site will exceed the height requirement.

- 4. Deviation from section 34-2194(b) buildings and structures may not be placed closer than 25 feet to a canal or to a bay or other water body, to allow for a 4', 12' & 15' waterbody setback for three of the proposed structures on site.**

The intent of deviating from the outlined section above is to allow for the placement of 3 proposed structures closer than the 25' setback requirement. We are requesting that the restaurant building be placed with a 4' waterbody setback, the office and ships store building placement at a 15' waterbody setback, and the maintenance & member building be placed at a 12' waterbody setback. Setback deviations are related to site configuration, site constraints, and the water-dependent uses on the property. This setback deviation request mirrors the previously approved waterbody setback in the prior zoning approval.

- 5. Deviation from section 33-1543(a) Requiring Landscape buffers for high density or high intensity development abutting a subdivided lot in an existing large lot residential subdivision must utilize, at a minimum, a 30-foot buffer width, to allow no buffer for the first 100' length of drive into the property and to allow tapered buffers on both sides for significant screening thereafter.**

The intent of deviating from the outlined section above is to allow the following: The location where the property directly abuts single-family residences is limited to a small portion of property approximately 50' wide, that is situated between two single family residences. The portion of property in question currently functions the same as the 50' ROW for inlet drive and will continue to function in this manner). The current configuration results in residential lots which act as though they are dual-frontage corner lots, although in practice it is a private piece of property between them instead of a right of way. (See Deviation #2a) It is our intent to continue to operate this portion of the property as the same as the Inlet Drive ROW for the first 100 feet to keep the integrity of the residential lots intact. The portion of the property past the single-family homes is intended to have a tapered buffer along the entrance drive on each side of the road providing a buffer of 4' to 33' in width. This proposed buffer will provide significant screening from the residences to the parking and marina operations within the subject property.

- 6. Deviation from section 34-2016(4) Requiring that Parking must be developed throughout the site utilizing the same degree of angle, to allow the use of varying angled parking spaces.**

The intent of deviating from the outlined section above is to allow the use of varying angled parking spaces throughout the site. For the East, North and Southern parking lots we have provided parking at 90 degrees. We are seeking relief for the western parking lot as the spaces have been proposed at 45 degrees. The western parking lot is intended to be utilized by members-only, and is a completely separate portion of the site, therefore different angle configuration parking spaces do not in practice conflict with each other.

7. Deviation from section 34-2020 Requiring that a total of 287 spaces must be provided on the site, to allow for a total of 214 spaces.

The intent of deviating from the outlined section above is to allow a total of 214 parking spaces for the proposed development. The intent is to request a deviation from the outlined requirement of 287 parking spaces to be provided for the overall site. The MCP delineates a total of 214 spaces with 158 standard and 56 non-stacked valet/employee spaces. We are requesting relief for the additional 73 spaces that are deficient with the current site design.

To justify both the site's inability to accommodate the code-required number of parking spaces and the requested relief from the 73 surplus spaces, we have submitted a parking study that outlines the following findings:

A comprehensive parking demand study has been conducted in accordance with the Institute of Transportation Engineers (ITE) Parking Generation Manual, 6th Edition and followed an approved methodology reviewed with Lee County staff. The study evaluated parking usage at three comparable marina facilities within Lee County: Sweetwater Landing Marina, Salty Sams Marina, and Deep Lagoon Marina. Based on observations, adjusted 95th percentile peak parking ratios were calculated for each relevant land use component. These ratios were then applied to the Port Phoenix Marina's land use mix, yielding a projected demand of 208 parking spaces under peak conditions. The proposed marina design provides 214 parking spaces, exceeding the projected 95th percentile demand. With this we have comprehensive evidence to justify that the provided parking within the development is sufficient to support the actual peak parking demand. The parking study has been submitted in support of the additional reductions to further justify the proposed deviation from Section 34-2020 parking requirements.

8. Deviation from section 10-291 Requiring Access Roadway to meet the minimum standards outlined in the subject section to allow for a 20' wide roadway with a single sidewalk.

The intent of deviating from the outlined section above is to allow the following: Inlet Drive is a suburban local street with open drainage. Per section 10-291, a local street that serves a commercial use should have lanes of 11 feet in width with sidewalks on both sides of the roadway. Current roadway width varies approximately 19.5' to 20' in width. Widening the roadway an extra two feet would adversely impact local residents that front the existing roadway. After discussions with both local residents and Lee County DOT, the wish is to have the least invasive improvements possible along inlet drive, with the single sidewalk along the north side remaining as-is, and the roadway milled and resurfaced to provide a new surface and consistent 20' width along the entire length from Orange Grove Boulevard to the project entrance drive.

- 9. Deviation from section 34-935(b)(1)(b) Requiring a minimum setback of 15 feet for all structures and buildings from the development perimeter boundaries for properties to be zoned CPD, to allow for a 4' boundary setback.**

The intent of deviating from the outlined section above is to allow the following: The intent is to request a deviation from the outlined requirement for the placement of 1 proposed structure on site that does not meet the 15' setback from perimeter boundary. We are requesting that the restaurant building be placed with a 4' boundary setback. Setback deviations are related to site configuration, site constraints, and the water-dependent uses on the property. This setback deviation request mirrors the previously approved waterbody setback in the prior zoning approval.

- 10. Deviation from section 10-296(2)(5)(iii)(b) Requiring Inlet Drive a Local Street to meet the minimum standards outlined in the subject section to allow for a 20' wide roadway with a single sidewalk.**

According to Lee County Community Development code 10-296(d)(3) a deviation from the roadway standards outlined in 10-296 may be applied for but "must meet the standards and criteria established by FDOT in the Florida Greenbook with consideration of the Plans Preparation Manual and guidance in AASHTO publications". According to the Florida Greenbook Table 3 – 20 Minimum Lane Widths Footnote Section on Chapter 3's pg. 57 Footnote number 3 states the following "In constrained areas where truck volumes are low and speeds are < 35 mph, 10' lanes may be used."

To meet the requirements of this footnote, Speath Engineering has generated a Truck Volume analysis report utilizing the 2018 FDOT Florida Greenbook and ITE trip generation 11th edition as well as the FDOT Online Traffic Portal to evaluate the truck volume for inlet drive and its standing compared to what is classified as a low truck volume. According to the Florida Greenbook chapter 13 page 138, C.13 states that a very low-volume local road is classified as (ADT less than or equal to 400 trips per day). Delineated in the Truck Volume analysis the total Daily Truck Volume (DTV) for inlet drive was determined to be 124 trips which is significantly lower than what is classified as a low volume road. As this meets half of the requirements in Footnote 3, we have also attached in the report google map imaging showing this roadway posted speed is below 35mph, therefore sufficiently meeting the criteria of the Greenbook deviation standard.



MEMORANDUM

To: John P. Mahlbacher, PE, CGC – Lee County Department of Community Development

From: David Taxman, P.E. – Mobility & Parking Services

CC: Matthew Speath, PE – Speath Engineering

Date: July 23, 2025

Subject: Port Phoenix Marina Parking Variance Study
Ft. Myers, Florida

Introduction

There are plans to construct the Port Phoenix Marina in Ft. Myers, Florida. The project plans to include a mix of uses, including dry and wet boat docks, retail, office, restaurant, private lounge, and boat repair service. The site can only support a total of 214 parking spaces (158 standard and 56 valet), but there is a parking requirement of 258 spaces with the proposed land use mix and an allowable ten percent reduction from providing boat docks. A variance of 44 parking spaces is being requested. Lee County has requested that a parking study is completed to show that the parking variance is justified. The analysis will follow the parking study methodology guidelines defined in the Institute of Transportation Engineers (ITE) *Parking Generation Manual, 6th Edition*. The parking study methodology was reviewed and approved by the Lee County Department of Community Development. This study documents the analysis and conclusion of the parking study.

Site Plan

The site plan for the proposed Port Phoenix Marina is included in **Appendix A**. This shows the layout and proposed land uses. The site layout has been maximized to support the proposed land uses, traffic circulation, parking, setbacks, stormwater management, and landscaping requirements. The site also needs adequate space to allow for the transportation of boats within the site. There is no additional space available to provide additional self-parking spaces.

Deviation Request

Table 1 includes the parking requirements calculation per Sec. 34-2020 (Required Parking spaces) of the Lee County Land Development Code (LDC). Per Sec. 34-2020-c (*Parking reduction for nonresidential uses*), a maximum 10% parking space reduction is permitted if one of the conditions is satisfied, which includes providing boat slips on the premises for a 10% parking space reduction. The parking deviation request is included in the project deviation requests, which is included in **Appendix B**. It is item number 7 of the deviation requests.

**Table 1: Port Phoenix Marina Parking Requirements Analysis**

Use	Size	Unit	Rate	Pkg Requirement
Restaurant	10,000 SF		12.5 sp / ksf	125
Office	2,100 SF		1 sp / 350 SF	6
Retail	1,800 SF		1 sp / 350 SF	6
Private Club	4,525 SF		1 sp / 100 SF	46
Boat Repair & Service	3 Bays		4 sp / bay	12
	22 Employees		1 sp / empl	22
Dry Slips	239 Slips		1 sp / 5 slips	48
Wet Slips	44 Slips		1 sp / 2 slips	22
Parking Requirement				287
Boat Slips Reduction (10% reduction)				29
Net Parking Requirement				258

Note: Parking requirements per Sec. 34-2020 of the Lee County Land Development Code

There is also 4,635 SF of storage space in the Maintenance & Member Building, which is an accessory use to the boat repair and service space. The boat repair and services parking requirement calculation are based on the number of repair bays and employees. There are two proposed loading zones around the Maintenance & Member Building to allow for deliveries.

Comparable Marina Sites

A parking study of three (3) comparable marina sites in unincorporated Lee County was performed to capture the true parking demand for a mixed-use marina facility similar to the proposed Port Phoenix Marina. The three approved marina sites in unincorporated Lee County, include Sweetwater Landing Marina, Salty Sams Marina, and Deep Lagoon Marina. **Appendix C** shows the site plans for these three marinas, which includes the land use mix and parking. Each of these marinas have a unique character and mix of land uses. They all have dry and wet boat slips, restaurant, office space, and boat repair services. They are located in car-centric areas similar to the proposed marina.

Salty Sams Marina generates substantial tourist activity as they offer boat rentals, boat tours, sunset cruises, waterfront dining, and a substantial ship store. The restaurant, Cantina Marina, in the Main Street Marina, is closed and was not included in the analysis. Also, the repair service center, which has about seven employees, is closed on the weekends. There is an overflow parking area on the north side of Main Street. The vehicles parked in this area were included in the parking demand analysis. Many of the wet slips were not being used because they were damaged during Hurricane Ian. However, it was observed that many were being used for transient boats and tour boats. This facility has a boat ramp, which is unlike the other two marinas and the proposed Port Phoenix Marina.

Deep Lagoon Marina is unique because they offer boat sales on site and have a new Marine Max retail center under construction for boat sales. During the weekends approximately 10% of the office and service employees are working. The private lounge was only for marina members and not open to the public, so it did not generate additional parking demand. The restaurant was very active in the afternoon/evening and offered valet parking, allowing vehicles to be double parked.



Sweetwater Landing Marina has a restaurant that is not directly connected to the marina, but overflow parking for the restaurant is offered in the marina parking area. Golf cart shuttles are used to transport people between the marina and restaurant. The boat service repair center is not open on the weekends and approximately 50% of the office employees work weekends. The lounge area is only available to marina members and does not generate additional parking demand.

Calibrated Parking Ratio Analysis

Hourly parking occupancy counts were collected on Saturday, March 22, 2025, between 7 AM and 7 PM, which is beyond the hours of the marinas. The hourly parking occupancy counts of the three marinas are included in **Appendix D**. The weather included clear skies, sun and temperatures in the 70's. This date is considered high season and was during spring break, as most schools and colleges in Florida have breaks between March 17-21 or March 24-28.

The peak parking counts were applied to develop calibrated peak parking demand ratios for each land use. The land use mix, base parking ratio for each land use from the Lee County LDC, and peak parking demand was applied to develop adjusted peak parking ratios for each land use. Tables 2 through 4 show the analysis applied to calculate the adjusted peak parking ratios for each land use at the three marinas.

Table 2 shows the calculated adjusted peak parking ratios for the land uses at Salty Sams Marina. The peak parking count at Salty Sams was 224 vehicles at 3 PM. As discussed previously, the service repair shop is not open on the weekend, which is why a 0% adjustment factor was applied. A 75% adjustment factor was applied for the wet slips since many of them were not in use due to being damaged from Hurricane Ian. No adjustments were applied for the other land uses. Salty Sams is unique because of the number of people it generates for boat rentals, tours, and the boat ramp.

Table 2: Salty Sams Peak Parking Ratio Analysis

Land Use	Size	Base Parking Ratio	Adj. Factor	Parking Demand	Adjusted Parking Ratio
Wet Slips	123 Slips	0.5 per slip	75%	46	0.38 per slip
Dry Slips	239 Slips	0.2 per slip	100%	48	0.20 per slip
Boat Ramp	1 Ramp	10 per ramp	100%	10	10.00 per ramp
Restaurant	7,192 SF	12.5 per KSF	100%	90	12.50 per KSF
Office	7,535 SF	2.9 per KSF	100%	22	2.86 per KSF
Retail	3,352 SF	2.9 per KSF	100%	10	2.86 per KSF
Service Shop ⁽¹⁾	7 Employees	1 per empl	0%	0	0.00 per empl
Total Peak Pkg Demand				225	

¹ Service shop is not open on the weekends

Table 3 shows the calculated adjusted peak parking ratios for the land uses at Deep Lagoon Marina. The peak parking count for the restaurant was 108 vehicles at 7 PM and 86 vehicles for the marina at 12 PM. As discussed previously, the service shop and office only have 10% of the employees working



on weekends, which is why a 10% adjustment factor was applied. The retail space is large but generates minimal activity since it is for boat sales, which does not generate high activity compared to typical retail. The lounge space is exclusively for marina members and does not generate parking demand, which is the reason for the 0% adjustment factor. The parking ratios for the other uses were adjusted to match the peak parking demand.

Table 3: Deep Lagoon Marina Peak Parking Ratio Analysis

Land Use	Size	Base Parking Ratio	Adj. Factor	Parking Demand	Adjusted Parking Ratio
Wet Slips	129 Slips	0.5 per slip	45%	29	0.23 per slip
Dry Slips	336 Slips	0.2 per slip	70%	47	0.14 per slip
Restaurant	9,600 SF	12.5 per KSF	90%	108	11.25 per KSF
Office ⁽¹⁾	17,085 SF	2.9 per KSF	10%	5	0.29 per KSF
Retail ⁽⁴⁾	13,627 SF	2.9 per KSF	10%	4	0.29 per KSF
Private Lounge ⁽²⁾	4,256 SF	10 per KSF	0%	0	0.00 per KSF
Service Shop ⁽³⁾	25 Employees	1 per empl	10%	3	0.10 per empl
Restaurant Peak Pkg Demand				108	
Marina Peak Pkg Demand				87	

¹ Office uses support the marina and approximately 10% of employees work on weekends

² Lounge is an amenity for marina members and doesn't generate additional people to marina

³ Service shop has 10% of employees on weekends

⁴ Retail space is for Marine Max boat sales

Table 4 shows the calculated adjusted peak parking ratios for the land uses at Sweetwater Landing Marina. The peak parking count was 275 vehicles at 2 PM, which is when both the restaurant and marina parking areas peaked. As discussed previously, the service repair center is not open on weekends (0% adjustment factor), and the office only has approximately 50% of the employees working on weekends (55% adjustment factor). The lounge space is exclusively for marina members and does not generate parking demand, which is the reason for the 0% adjustment factor.

Table 4: Sweetwater Landing Marina Peak Parking Ratio Analysis

Land Use	Size	Base Parking Ratio	Adj. Factor	Parking Demand	Adjusted Parking Ratio
Wet Slips	71 Slips	0.5 per slip	100%	36	0.5 per slip
Dry Slips	204 Slips	0.2 per slip	100%	41	0.2 per slip
Restaurant	14,900 SF	12.5 per KSF	100%	186	12.5 per KSF
Office ⁽¹⁾	7828.92 SF	2.9 per KSF	55%	12	1.57 per KSF
Private Lounge ⁽²⁾	3,221 SF	10 per KSF	0%	0	0 per KSF
Service Shop ⁽³⁾	25 Employees	1 per empl	0%	0	0 per empl
Peak Parking Demand				275	

¹ Office uses support the marina and approximately 55% of employees work on weekends

² Lounge is an amenity for marina members and doesn't generate additional people to marina

³ Service shop is not open on weekends



Table 5 shows the 85th percentile and 95th percentile parking ratios for each land use. In the *ITE Parking Generation Manual, 6th Edition* they reference the 85th percentile parking ratio, which is the industry standard for informing parking supply recommendations. The 95th percentile parking ratios were applied to calculate the parking requirements, which exceeds the industry standard for parking supply recommendations. The reason for using the 95th percentile ratios is because of the smaller sample size. The private lounges are exclusive to marina members as an amenity and do not generate any additional parking demand, which is similar to the proposed Port Phoenix Marina. Also, the Port Phoenix Marina plans to have minimal or no boat repair staff during the weekends.

Table 5: Calibrated Parking Ratio Analysis

Land Use	Sweetwater Landing	Deep Lagoon	Salty Sams	85th Percentile Pkg Ratio	95th Percentile Pkg Ratio	Parking Space Factors
Wet Slips	0.50	0.23	0.38	0.46	0.49	per Slip
Dry Slips	0.20	0.14	0.20	0.20	0.20	per Slip
Restaurant	12.50	11.25	12.50	12.50	12.50	per KSF
Office	1.57	0.29	2.86	2.47	2.73	per KSF
Retail	N/A	0.29	2.86	2.47	2.73	per KSF
Private Lounge ⁽¹⁾	0.00	0.00	N/A	0.00	0.00	per KSF
Service Shop ⁽²⁾	0.00	0.10	0.00	0.07	0.09	per employee

¹ The private lounges were all exclusive to marina members and did not generate additional parking

² The boat repair service centers were either closed or had low staff on weekends

Parking Demand Analysis

Table 6 shows the 95th percentile parking requirement analysis for the Port Phoenix Marina based on the proposed land use mix and the 95th percentile parking ratios (**Table 5**). The analysis shows a total parking requirement of 208 spaces. As stated previously, there is a plan to provide 214 parking spaces. This analysis shows there is adequate parking to support demand.

If there are outlier peak surges in parking demand, the marina will provide valet parking on-site, which provides the opportunity for stacked parking to increase supply. All valeted vehicles will be parked on-site. The double parking of vehicles by valets was observed at the Deep Lagoon Marina during the evening from peak restaurant activity. In addition, the trend is that more people are using on-demand ridehailing services like Uber and Lyft, which is decreasing parking demand for certain types of land uses, which includes places where people may be drinking alcohol like a restaurant or boating.

To prevent issues with vehicles parking in the surrounding neighborhood, No Parking Tow Away Zone signage providing the name and telephone number of the tow company will be posted along Inlet Drive and Harbour Lane. This will deter people from parking in these areas.

**Table 6: Port Phoenix Marina Parking Supply Analysis**

Land Use	Size Unit	Rate	95th % Parking Ratio	95th Percentile Parking Supply
Restaurant	10,000 SF	12.5 sp / ksf	12.50 per ksf	125
Office	2,100 SF	1 sp / 350 SF	2.73 per ksf	6
Retail	1,800 SF	1 sp / 350 SF	2.73 per ksf	5
Private Club	4,525 SF	1 sp / 100 SF	0.00 per ksf	0
Boat Repair/Service	22 Employees	1 sp / empl	0.09 per empl	2
Dry Slips	239 Slips	1 sp / 5 slips	0.20 per slip	48
Wet Slips	44 Slips	1 sp / 2 slips	0.49 per slip	22
Parking Supply Requirement				208

Conclusion

A parking variance study was conducted to determine if the 214 parking spaces at the Port Phoenix Marina is sufficient. Based on the study of three comparable mixed-use marinas there is a projected parking requirement of 208 spaces. If the site experiences rare surges in parking demand there are plans to offer valet parking, which allows vehicles to be double parked, increasing the overall supply. There will also be Tow Away signage posted along Inlet Drive and Harbour Lane to deter people from parking on neighborhood streets.

Should you have any questions regarding the Port Phoenix parking demand analysis, please do not hesitate to reach out to me.

Sincerely,

Mobility and Parking Services

A handwritten signature in blue ink, appearing to read "David Taxman".

David Taxman, P.E.

Florida PE Registration Number: 85552





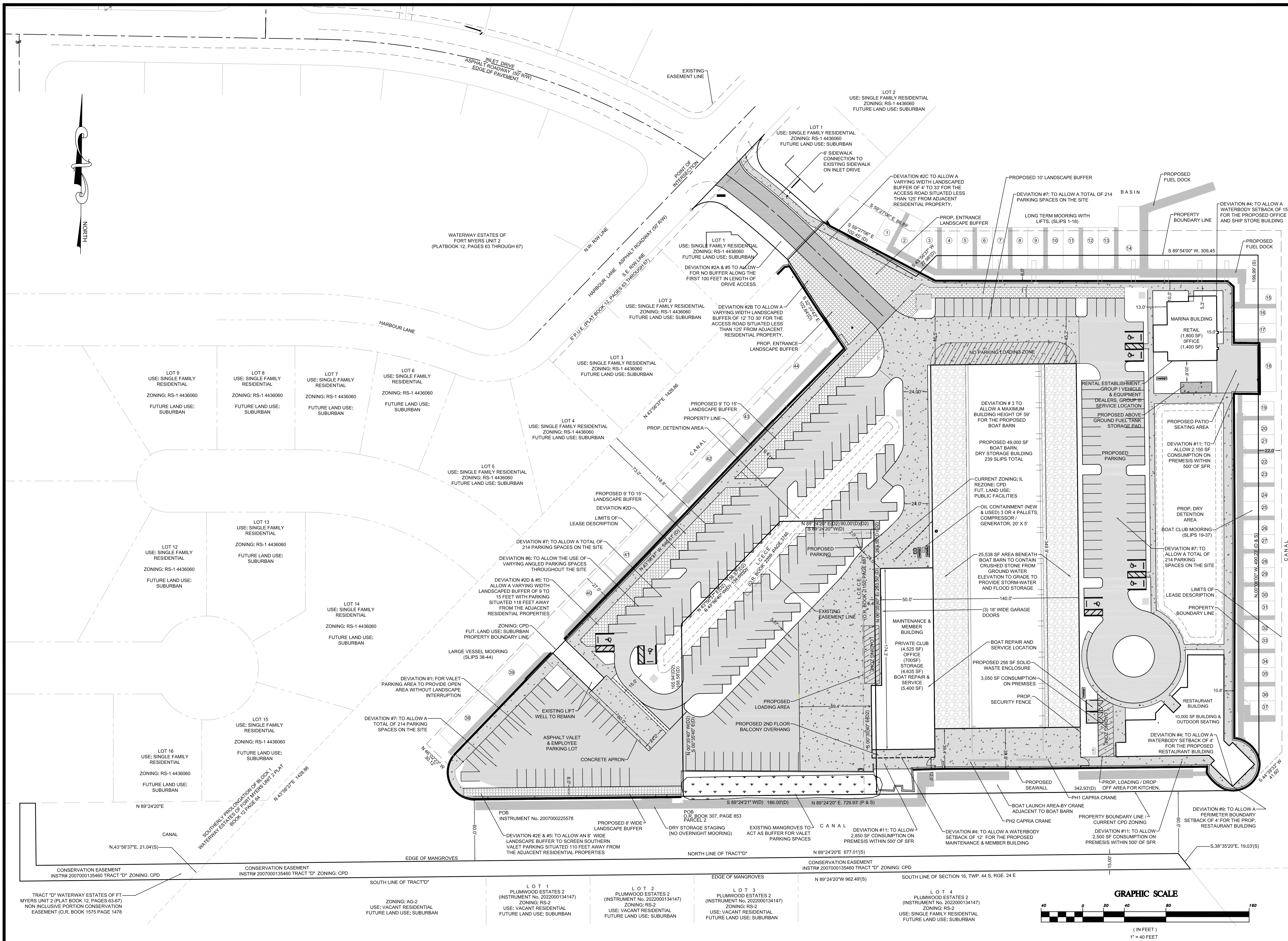
APPENDIX A

Site Plan

SPEATH
ENGINEERING
SPEATH ENGINEERING FL, LLC - 1100 BRICKELL AVE., 10TH FL.
MIAMI, FL 33131 - PHONE: 305-584-4213

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY MATTHEW S. SPEATH, P.E. ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

DRAWN	TCG
CHECK	MSS
DATE	12/09/24
SCALE	1" = 40'
PROJ. NO.	F22-56

$$\begin{array}{c} MCP \\ 1 \quad OF \quad 1 \end{array}$$




APPENDIX B

Parking Deviation Request



Deviation from section 34-2020 requiring that a total of 287 spaces must be provided on the site, to allow for a total of 214 spaces.

The intent of deviating from the outlined section above is to permit a total of 214 parking spaces to support the mixed-use marina site. Per the Land Development Code, the parking requirement is for 258 spaces, which includes a 10 percent reduction for providing boat slips on the premises. The deviation from 258 spaces to 214 spaces is a reduction of 44 spaces, which is a reduction of approximately 17 percent. The Director may administratively approve a reduction to the minimum required number of parking spaces for nonresidential uses by a maximum of ten percent if one or more of the conditions listed in part C of Section 34-2020 is satisfied. One of the criteria to allow for a ten percent reduction (item 2) is providing boat slips on the premises, which allows a ten percent reduction. This site will provide boat slips. However, a parking study will be conducted to show if the requested parking deviation of 44 spaces (17%) is warranted. The parking study will analyze three comparable sites to project the demand of the proposed mixed-use marina. The mixed-use nature of the proposed project allows for shared parking and internal capture, which reduces the overall parking demand.



APPENDIX C

Site Plans of Three Comparable Marina Sites

PROPOSED PARKING CALCULATIONS

(PER LEE CO. LDC SEC. 34-2020)

PROPOSED USE

OFFICE
1 SPACE PER 300 SQFT OF TOTAL AREA
TOTAL OFFICE AREA (sf) = 17085
17085 sf / 300 = 57.0 SPACES

RESTAURANT
14 SPACES PER 1000 SQFT OF TOTAL AREA
TOTAL RESTAURANT AREA (sf) = 9600
9600 sf / 1000 x 14 = 134 SPACES

LOUNGE / BAR
7 ADDITIONAL SPACES PER 1000 SQFT
OF TOTAL LOUNGE AREA
TOTAL LOUNGE AREA (sf) = 0
0 sf / 1000 x 7 = 0 SPACES

RETAIL (LARGE PRODUCTS)
1 SPACE PER 400 SQFT OF TOTAL FLOOR AREA
TOTAL RETAIL SALES AREA (sf) = 12127
12127 sf / 400 x 1 = 30.3 SPACES

DEAD STORAGE
1 ADDITIONAL SPACE PER 1000 SQFT
OF TOTAL STORAGE AREA
TOTAL STORAGE AREA (sf) = 1500
1500 sf / 1000 x 1 = 1.5 SPACES

MARINA*
WET BOAT SLIPS
2 SPACES PER 3 SLIPS
TOTAL NUMBER OF WET SLIPS = 129
129 / 3 x 2 = 86 SPACES
DRY BOAT STALLS (BATH HOUSE)
1 SPACE PER 4 STALLS
TOTAL NUMBER OF DRY STALLS = 336
336 / 4 x 1 = 84 SPACES

INDOOR RECREATIONAL
1 SPACE PER 100 SQFT OF TOTAL AREA
TOTAL OFFICE AREA (sf) = 4256
4256 sf / 100 = 42.6 SPACES

HANDICAPPED PARKING
9 HANDICAPPED PARKING REQUIRED
(400-500 PARKING SPACE 9 HANDICAPPED REQUIRED)
PROPOSED = 14

*TOTAL REQUIRED PARKING SPACES = 436
*TOTAL PROVIDED PARKING SPACES = 444
(427 SPACES APPROVED PER ZONING RESOLUTION #2-99-013)

*SERVICE BAYS AND RESTROOMS FACILITIES ARE ACCESSORY USES
TO THE MARINA. NO ADDITIONAL PARKING SPACES ARE REQUIRED.

DOS2005-00214 PARKING CALCULATIONS

(PER LEE CO. LDC SEC. 34-2020)

PROPOSED USE

OFFICE
1 SPACE PER 300 SQFT OF TOTAL AREA
TOTAL OFFICE AREA (sf) = 17085
17085 sf / 300 = 57.0 SPACES

RESTAURANT
14 SPACES PER 1000 SQFT OF TOTAL AREA
TOTAL RESTAURANT AREA (sf) = 8474
8474 sf / 1000 x 14 = 119 SPACES

LOUNGE / BAR
7 ADDITIONAL SPACES PER 1000 SQFT
OF TOTAL LOUNGE AREA
TOTAL LOUNGE AREA (sf) = 0
0 sf / 1000 x 7 = 0 SPACES

RETAIL (LARGE PRODUCTS)
1 SPACE PER 400 SQFT OF TOTAL FLOOR AREA
TOTAL RETAIL SALES AREA (sf) = 12127
12127 sf / 400 x 1 = 30.3 SPACES

DEAD STORAGE
1 ADDITIONAL SPACE PER 1000 SQFT
OF TOTAL STORAGE AREA
TOTAL STORAGE AREA (sf) = 1500
1500 sf / 1000 x 1 = 1.5 SPACES

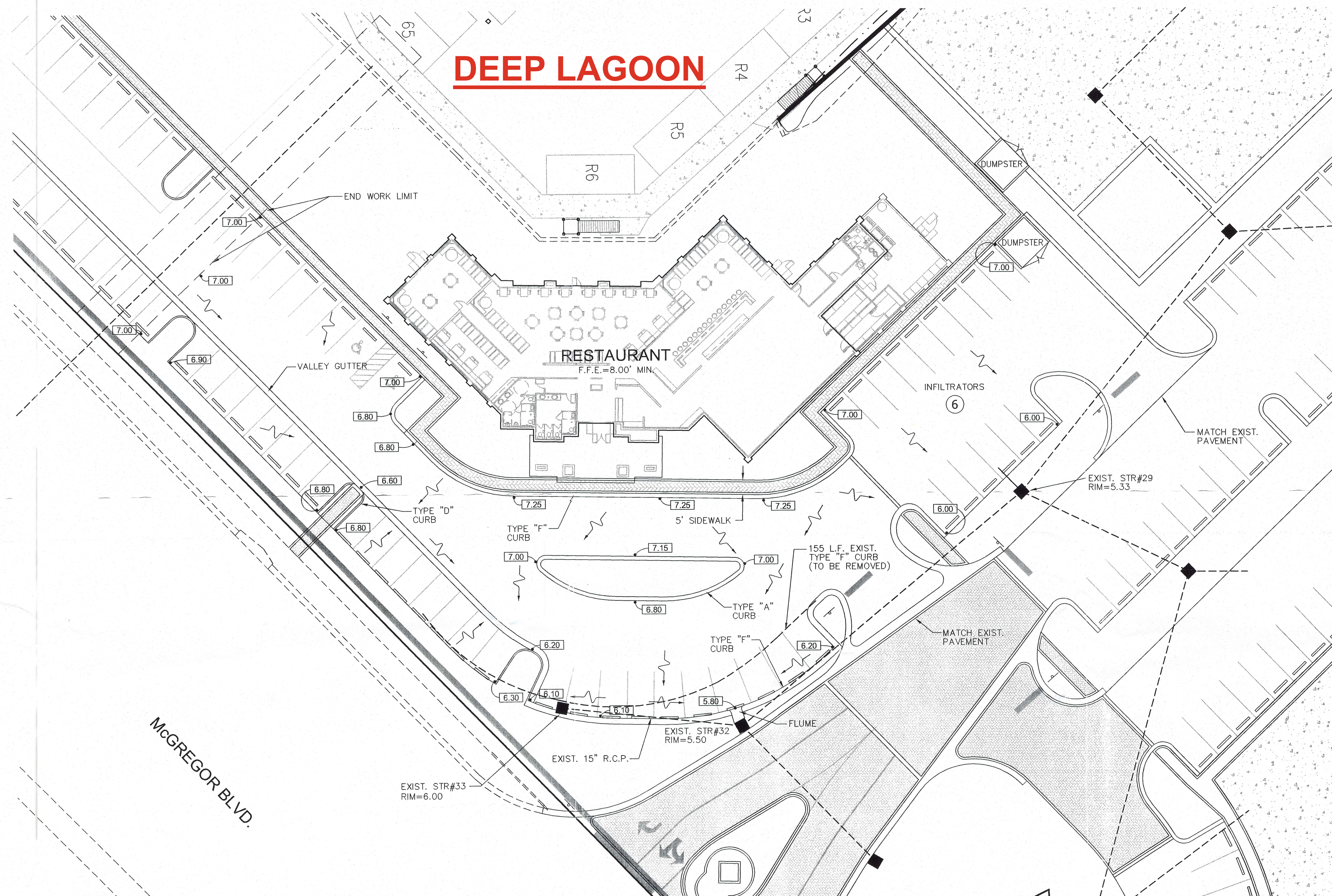
MARINA*
WET BOAT SLIPS
2 SPACES PER 3 SLIPS
TOTAL NUMBER OF WET SLIPS = 129
129 / 3 x 2 = 86 SPACES
DRY BOAT STALLS (BATH HOUSE)
1 SPACE PER 4 STALLS
TOTAL NUMBER OF DRY STALLS = 336
336 / 4 x 1 = 84 SPACES

INDOOR RECREATIONAL
1 SPACE PER 100 SQFT OF TOTAL AREA
TOTAL OFFICE AREA (sf) = 4256
4256 sf / 100 = 42.6 SPACES

HANDICAPPED PARKING
9 HANDICAPPED PARKING REQUIRED
(400-500 PARKING SPACE 9 HANDICAPPED REQUIRED)
PROPOSED = 14

*TOTAL REQUIRED PARKING SPACES = 420
*TOTAL PROVIDED PARKING SPACES = 427
(427 SPACES APPROVED PER ZONING RESOLUTION #2-99-013)

*SERVICE BAYS AND RESTROOMS FACILITIES ARE ACCESSORY USES
TO THE MARINA. NO ADDITIONAL PARKING SPACES ARE REQUIRED.



PROPOSED SITE DATA - AREA SUMMARY

TOTAL SITE AREA:	1,047,394 SF	24.04 AC	
SUBMERGED LANDS: (TIDAL CANALS)	376,358 SF	8.64 AC	
NET SITE AREA:	671,036 SF	15.40 AC	100%
IMPERVIOUS AREAS			
BUILDING FOOTPRINT	167,496 SF	3.81 AC	24.96%
ASPHALT	180,763 SF	4.15 AC	26.95%
CONCRETE PAVEMENT	49,223 SF	1.13 AC	7.34%
BRICK PAVEMENT (ROADS)	29,662 SF	0.68 AC	4.42%
POOLS	1,944 SF	0.04 AC	0.26%
CURBS	10,631 SF	0.24 AC	1.56%
SIDEWALKS	26,466 SF	0.61 AC	3.96%
PERVIOUS AREAS	204,915 SF	4.70 AC	30.51%

D.C.D.
**OFFICIAL
FILE
COPY**

Division of Development Services
D.O. MINOR CHANGE # 407
APPROVED
By *[Signature]* Date 10/6/2011
For review by *[Signature]* for review
*Approval based on site information
supplied by applicant.

DOS2005-00214

Received
SEP 01 2011
COMMUNITY DEVELOPMENT

date 7-11

file name: MPG

job DL

No.	Date	Revisions
1	8-11	ADDED REVISED PARKING CALCULATIONS PER COMMENTS DATED AUG. 10, 2011



community engineering services, inc.
civil engineering • surveying • project management

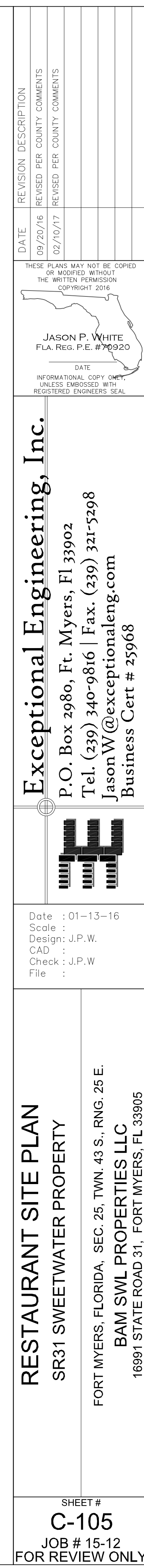
EB-0006613 LB-6572
2740 Oak Ridge Court, Suite 303
Fort Myers, Florida 33901
Telephone (239) 936-9777 Fax (239) 936-0064

PAVING, GRADING AND DRAINAGE PLAN
OF
DEEP LAGOON MARINA

FOR
DEEP LAGOON BOAT CLUB, LTD.
14030 McGREGOR BLVD.
FORT MYERS, FL 33919
(239) 454-2628 FAX (239) 513-9269

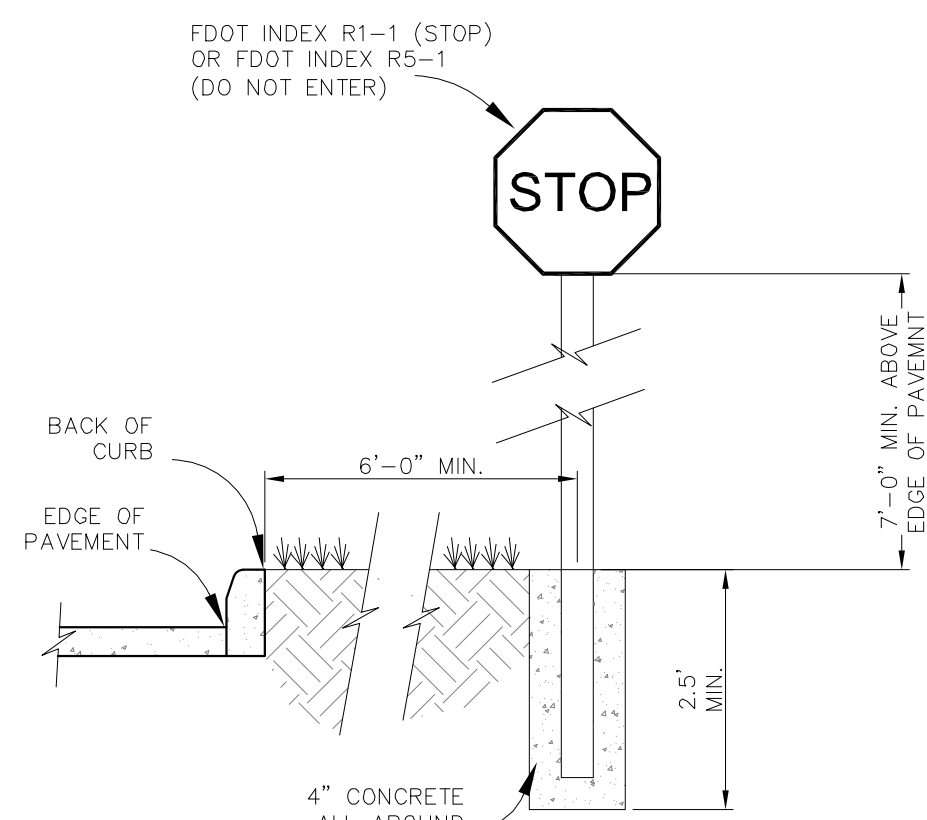
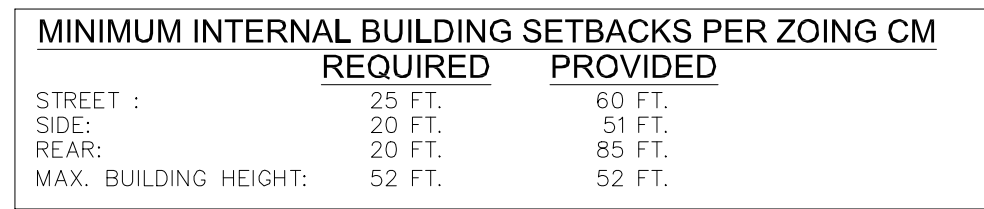
MARK D. MCC
FL PE #44052

SEP 01 2011



APPROVED
DOS2016-00050
Tom Sawtell, Development Review Representative
Lee County Development Services
3/20/2017

M.H. DAVIS PROPERTIES
UNRECORDED



ADDITIONAL 22 PARKING SPACES NEEDED, PARKING REQ. MET.

— EXISTING LOT LINES
— EXISTING ROAD CENT

SHEET #
C-5
JOB # 15-54

DATE	REVISION DESCRIPTION
9/22/16	REVISED PER BRANDON COMMENTS

THESE PLANS MAY NOT BE COPIED
OR MODIFIED WITHOUT
THE WRITTEN PERMISSION
COPYRIGHT 2016



Jason P. White
Fla. Reg. P.E. #76920

DATE _____

INFORMATIONAL COPY ONLY,
UNLESS EMBOSSED WITH

Exceptional Engineering, Inc.

PO Box 2980 | Ft. Myers, FL 33902
Tel. (239)-340-9816 | Fax. (239)-321-5298
JasonW@exceptionaleng.com
Business Cert # 25968



Date : 08-24-2019
Scale :
Design : J.P.W.
CAD : J.A.H.
Check : J.P.W.
File : 15-54

SITE PLAN
SR31 SWEETWATER PROPERTY

FORT MYERS, FLORIDA, SEC. 25, TWN. 43 S., RNG. 25 E.
BAM SWL PROPERTIES LLC
16991 STATE ROAD 31, FORT MYERS, FL 33905

SALTY SAM'S

EXISTING TEMPORARY BOAT & TRAILER & VEHICLE PARKING (W)

ZONING REGULATIONS

CURRENT ZONING IS MPD.

MINIMUM SETBACKS:

STREET:	25'
WATERBODY:	25' (ALL BLDGS. EXCEPT KIOSKS)
BUILDING SEPARATION:	20'
SOUTH OF MAIN STREET:	15'
KIOSKS:	15'
OTHERS:	20'

SIDES:

MARINA:	25'
PARCELS SOUTH OF MAIN ST:	45' (EXCEPT FOR MARINA)

PROJECT DATA:

LAND USE	EXISTING AREA
BUILDING	62,838± SF 1.44± Ac.
PAVEMENT/WALKS	160,129± SF 3.68± Ac.
STABILIZED PARKING AREA	92,238± SF 2.12± Ac.
EXISTING INDIGENOUS AREA	146,162± SF 3.36± Ac.
OPEN SPACE AREA	114,379± SF 2.63± Ac.
TOTAL AREA	575,746± SF 13.22± Ac.

OPEN SPACE:

Percent Open Space = 260,541 / 575,746 * 100% = 45.25%
Existing Indigenous Area = 146,162 SF (25.39%)

TOTAL NUMBER OF SLIPS

239 Dry Slips
123 Wet Slips
362 Total Slips

ALLOWABLE USES

MARINA USES

- Wet and Dry slips
- Charter Boat
- Boat Ramp
- Boat Rental
- Boat Storage
- Boat Sales
- Live-Aboards
- Multi-Slip Docking Facility

ACCESSORY MARINA USES:

- Administration Offices
- Ships Store
- Bait and Tackle Shop
- Boat Club
- Boat Parts store
- Boat Repair and Services
- Transportation
- Outdoor Display
- Indoor and Outdoor Storage
- Restroom & Laundry Facilities
- Convenience food and Beverage Store
- Gift and Souvenir shop
- Parking
- Recreational Facilities
- Marine Fuel

RESTAURANT USES

- Big Game – 7,930± S.F.
- (Includes: 1,593 S.F. Exist. Outdoor Seating)
- Parrot Key – 7,192± S.F.

REFUSE CALCULATIONS

LDC 10-261

COMMERCIAL 216 S.F. FOR INITIAL 25,000 S.F.
PLUS 8 S.F. FOR EACH ADD'L 1,000 S.F.

TOTAL BUILD AREA = 62,838 S.F.
- 25,000 S.F.
37,838 S.F.

REQUIRED: 37,838 / 1,000 = 37.8 x 8 = 302.7 S.F.

REQUIRED = 216 S.F.
+303 S.F.
519 S.F. REQUIRED

NOTE: EXISTING TRASH COMPACTOR PROVIDES REQUIRED
ON-SITE SPACE FOR REFUSE.
A SEPARATE RECYCLING DUMPSTER IS PROVIDED
(12'4"x10'6") = 130 S.F.

BLDG. HATCH CLASSIFICATION

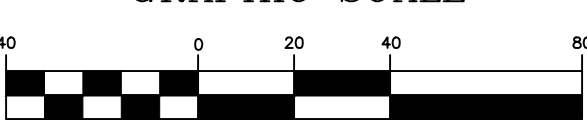
	APPROVED DOS2000-00170
	APPROVED DOS2000-00101
	EXISTING BUILDING PRIOR TO 2000 D.O. APPROVALS
	AFTER THE FACT APPROVALS
	EXISTING IMPACT TO BE REMOVED
	CLEAR VIEW TRIANGLE (NO OBSTRUCTIONS)

LEGEND:

EXISTING PARKING	1
PROPOSED PARKING	10
GRAVEL PARKING AREA	
GRASS/GRAVEL PARKING AREA	
EXIST. HEAVY CONCRETE AREA	
EXIST. ASPHALT PVMT. AREA	
EXIST. ASPHALT PVMT. AREA (TO BE REMOVED)	
INDIGENOUS AREA	
DRY DETENTION AREAS	



GRAPHIC SCALE



(IN FEET)

1 inch = 40 ft.

MAIN STREET MARINA

SALTY SAM'S MARINA

DEVELOPMENT NOTE:

The purpose of this application is to document all the existing uses and to bring the site into compliance with zoning resolution Z-12-028 Exhibit C – Master Concept Plan Phase 1. Per condition #10, All legally existing buildings, structures and uses will remain in place as Phase 1 of this project; however any improvements, rebuilds, or replacements of structures must be in conformance with the requirements and limitation of the LDC Article VIII. Nonconformities; however, no expansions or enlargement of any structure or use shall be allowed in this Phase. no new buildings or structures shall be constructed. Furthermore, the RV sites in Phase 1 shall be subject to the limitations of the approved "86-36" site plan, a copy of which is attached hereto as Exhibit D. Any unpermitted structure or use shall not be considered vested or permitted under this approval; however, permits authorizing buildings or uses shown on the Phase 1 MCP may be issued without triggering the requirements for Phase II in Condition 11.

For purposes of this application the properties shown here shall be treated as one parcel

REVISION	REVISED PER LEE COUNTY COMMENTS	DATE
1	REVISED PER LEE COUNTY COMMENTS	6/2022
2	REVISED PER LEE COUNTY COMMENTS	8/2021
3	REVISED PER LEE COUNTY COMMENTS	4/2021
4	REVISED PER LEE COUNTY COMMENTS	6/2020
5	REVISED PER LEE COUNTY COMMENTS	1/2020

HANSON MARINE PROPERTIES, INC.

SALTY SAM'S MARINA

SAN CARLOS ISLAND, LEE COUNTY FLORIDA

DESIGNED BY	C.L.K.	DATE	06/13
DRAWN BY	C.L.K.	DATE	06/13
CHECKED BY	C.L.K.	DATE	06/13
VERTICAL SCALE	N/A	HORIZONTAL SCALE	1"=40'



6200 Whiskey Creek Drive
Fort Myers, FL. 33919
Phone : (239) 985-1200
Florida Certificate of
Authorization No.1772

MASTER SITE PLAN

THESE DRAWINGS ARE NOT APPROVED FOR CONSTRUCTION UNLESS SIGNED BELOW:	CAD FILE NAME:	DRAWING NO.:
CHARLES L. KREBS, PE #56835	13017MSP	1341-07
DATE	PROJECT NO.:	SHEET NO.:
	2013.017	7 OF 10

APPROVED
DOS2014-00092
John Mahlbacher, Dev Svcs Plan Reviewer
Lee County Department of Community Development
4/20/2023

NOTES:

- Proposed dumpster enclosures to be constructed per detail on sheet 10 of 11.
- Dumpster enclosures to maintain 22 ft. vertical clearance.

AFTER THE FACT BUILDING AREA REQUESTED APPROVAL 6,808 S.F.

PARKING LEE COUNTY LDC 34-2020(B) REQUIRED PARKING

BUILDING "A" – 120 s.f. Storage – 120 s.f.	BUILDING "R" – 72 s.f. Gift & Souvenir Shop (Retail) – 72 s.f.	BUILDING "S" – 435 s.f. Covered Pavilion – 435 s.f.	BUILDING "T" – 495 s.f. Gift & Souvenir Shop (Retail) – 495 s.f.	BUILDING "V" – 460 s.f. Office Boat Rentals – 460 s.f.
BUILDING "B" – 13,380 s.f. Administrative Office – 4,473 s.f. Storage – 925 s.f. Original Tiki Bar – 2,196 s.f. Not Approved Expansion – 4,996 s.f. Retail – 800 s.f.	BUILDING "C" – 5,537 s.f. Administrative Office – 2,252 s.f. Retail – 1,985 s.f. Covered Walkway – 1,300 s.f.	BUILDING "D" – 6,411 s.f. Restaurant – 6,411 s.f. Outdoor Seating – 1,519 s.f.	BUILDING "G" – 1,250 s.f. Storage – 1,250 s.f.	BUILDING "H" – 242 s.f. Storage – 242 s.f.
BUILDING "I" – 350 s.f. Office, Boat Repairs & Services – 350 s.f.	BUILDING "N" Rack – Included in Building A total of 208 slips Dry Slips – 9	BUILDING "O" – Boat Storage Rack Dry Slips – 9	BUILDING "P" – Boat Storage Rack Dry Slips – 22	

34-2020b – MARINAS
CHARTER BOATS (1 SPACE PER 3 PEOPLE
8 BOATS TOTAL / 112 PEOPLE = 112 / 3 = 38

34-2020B RETAIL LARGE PRODUCT =
RETAIL 2.5 SPACES PER 1,000 S.F.
350 SF = 1 SPACE

REQUIRED = 382 SPACES
PER APPROVED ADD2018-00003
4% REDUCTION = 385X 4% = 16 SPACES
TOTAL REQUIRED = 366 SPACES

PROVIDED PARKING
SALTY SAM'S MARINA
172 SPACES (4 HC, 10 BOAT & TRAILER)

MAIN STREET MARINA
211 SPACES (8 HC)

TOTAL PARKING REQUIRED = 366 SPACES
TOTAL PARKING PROVIDED = 383 SPACES

34-2020b – MARINAS
CHARTER BOATS (1 SPACE PER 3 PEOPLE
8 BOATS TOTAL / 112 PEOPLE = 112 / 3 = 38

34-2020B RETAIL LARGE PRODUCT =
RETAIL 2.5 SPACES PER 1,000 S.F.
350 SF = 1 SPACE

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PER APPROVED ADD2018-00003
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SALTY SAM'S MARINA
172 SPACES (4 HC, 10 BOAT & TRAILER)

MAIN STREET MARINA
211 SPACES (8 HC)

TOTAL PARKING REQUIRED = 366 SPACES
TOTAL PARKING PROVIDED = 383 SPACES



APPENDIX D

Hourly Parking Occupancy Counts of Three Comparable Marina Sites



Sweetwater Landing Marina
Parking Occupancy Counts on Saturday 3/22/25

Time	Restaurant	Marina		Total
7:00 AM	7	23	✓	30
8:00 AM	8	26	✓	34
9:00 AM	11	26	✓	37
10:00 AM	25	29	✓	54
11:00 AM	56	36	✓	92
12:00 PM	120	39	✓	159
1:00 PM	133	79	✓	212
2:00 PM	153	122	✓	275
3:00 PM	124	84	✓	208
4:00 PM	134	87	✓	221
5:00 PM	123	89	✓	212
6:00 PM	113	74	✓	187
7:00 PM	115	55	✓	170

Deep Lagoon Marina
Parking Occupancy Counts on Saturday 3/22/25

Time	Restaurant	Marina		Total
7:00 AM	0	8	✓	8
8:00 AM	0	29	✓	29
9:00 AM	0	35	✓	35
10:00 AM	4	56	✓	60
11:00 AM	12	73	✓	85
12:00 PM	37	86	✓	123
1:00 PM	38	83	✓	121
2:00 PM	39	81	✓	120
3:00 PM	44	80	✓	124
4:00 PM	50	78	✓	128
5:00 PM	85	65	✓	150
6:00 PM	106	60	✓	166
7:00 PM	108	58	✓	166



Salty Sams Marina

Parking Occupancy Counts on Saturday 3/22/25

Time	Salty Sams Marina	Main St Marina	Overflow Lot		Total
7:00 AM	11	10	2	✓	23
8:00 AM	19	12	1	✓	32
9:00 AM	38	17	2	✓	57
10:00 AM	91	43	14	✓	148
11:00 AM	127	58	19	✓	204
12:00 PM	128	57	19	✓	204
1:00 PM	125	71	24	✓	220
2:00 PM	123	72	27	✓	222
3:00 PM	121	73	30	✓	224
4:00 PM	118	67	24	✓	209
5:00 PM	119	46	21	✓	186
6:00 PM	134	41	21	✓	196
7:00 PM	137	38	18	✓	193

PROPERTY DEVELOPMENT REGULATIONS TABLE

SITE INFO		REQUIRED	PROPOSED
MINIMUM LOT AREA & DIMENSIONS	-----	Lot Area: 20,000 SF Lot Width: 100 FT Lot Depth: 100 FT	7.34 AC Irregular Irregular
SETBACKS	-----	Side Yard: 15 FT Rear Yard: 15 FT Street: 15 FT Waterbody: 25 FT	N/A N/A N/A 4.0' (Restaurant) 15.0' (Marina Bld) 12.0' (Member)
MAX BUILDING HT.	-----	45	57' (Boat Barn) 45' (All Other Bld)
MAX LOT COVERAGE	-----	40 %	24.6%
PROPOSED STRUCTURES	Structures	Uses	SF Provided
	Boat Barn	Dry Storage	49,000 SF
	Maintenance & Member Building	Storage 1 st Fl	3,400 SF
		Storage 2 nd Fl	1,235 SF
		Private Club 2 nd Fl	4,525 SF
		Office 2 nd Fl	700 SF
		Boat Repair and Service	5,400 SF
	Restaurant Building	Restaurant	10,000 SF
	Office & Ships store	Retail Office	1,800 SF 1,400 SF
	TOTAL STRUCTURE SF=		<u>77,460 SF</u>
FUTURE LAND USE	Suburban & Public Facilities	-----	-----
STRAP NUMBERS	16-44-24-030030A.0000 16-44-24-030030B.0000 16-44-24-03-0030B.00A0	-----	-----
PLANNING COMM.	North Fort Myers	-----	-----
FOLIO NUMBERS	10162893 10162894 10162895	-----	-----
BOAT SLIPS	Dry	-----	239
BOAT SLIPS	Wet	-----	44

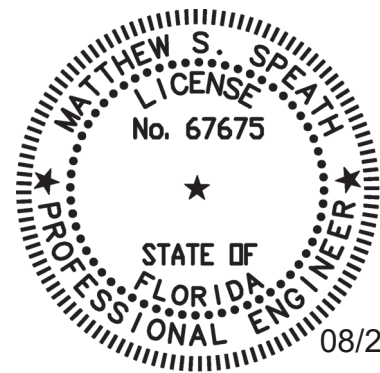
TOTAL OPEN SPACE	-----	2.07 AC (30% of Lot Area)	2.1 AC (30.3%)
PARKING	Use	Rate	Provided
	Restaurant, 10,000 SF	12.5/ksf = 125 spaces	Standard = 158 Valet = 56
	Office, 2,100 SF	1/350 sf = 6 spaces	
	Retail (Ships Store), 1,800 SF	1/ 350 sf = 6 spaces	
	Private Club	1/100 sf = 46 spaces	
	Boat Repair (3 Bays) Service (22 Employees)	4/Bay = 12 spaces 1/Empl. = 22 spaces	
	Dry slips (239)	1/5 Slips = 48 spaces	
	Wet slips (44)	1/2 Slips = 22	
	Maintenance & Member	Accessory to Boat Repair & Service	
	Parking Requirement = 287 Boat Slips Reduction (10% reduction) = 29 Net Parking Requirement = 258 Total Required Per Parking Study = 208		Total = 214
SOLID WASTE	Commercial Business Bldg. SF	Min SF for Solid Waste	SF Provided
	Total SF of Industrial & Commercial Business Bldg. = 28,460 SF	216 SF up to 25,000 SF Plus 8 SF for each additional 1,000 SF Required: 256 SF	256 SF
CONSUMPTION ON PREMISES	Building	Interior	Exterior
	Restaurant	7,500 SF	2,500 SF
	Harbor Master	1,800 SF	2,150 SF
	Maintenance & Member	3,200 SF	N/A

Traffic Impact Statement

Prepared For:

**Port Phoenix
(Waterway Marina)**

**1687 Inlet Drive
Fort Myers, FL**



08/21/2025

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Prepared By:
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Issued: August 21, 2025

SPEATH
ENGINEERING

Project #F22-56

INTRODUCTION

Speath Engineering has conducted a traffic impact assessment of a proposed development to fulfill requirements of the Lee County Department of Community Development and the Lee County Land Development Code. This report has been completed in accordance with current guidelines as established in the Lee County Traffic Impact Assessment Guidelines and provided by the Division of Development Review.

The following analysis has been prepared for a Development Order submittal for a Commercial development of a marina which consists of 44 wet slips and a 49,000 square foot boat barn with 239 dry slips, a 15,260 square foot member and maintenance building, a 3,200 square foot ships store, a 2,150 SF outdoor COP, and a 10,000 square foot restaurant (7,500 SF building area and 2,500 SF of outdoor seating space). The site has a total land area of 252,658 SF. This analysis reviews the potential impact of the new development on the surrounding roadways.

PROPOSED/EXISTING DEVELOPMENT

The developer proposes to improve the property located at 1687 Inlet Drive, Fort Myers, FL 33903. The improvements to the commercial parcel include site development from two vacant parcels and the construction of a marina, a maintenance and member building, a ships store, and a 10,000 SF restaurant (7,500 SF building area and 2,500 SF of outdoor seating space). The proposed marina consists of 283 total berths and includes a dry storage boat barn. The maintenance and member building includes a 4,525 SF member lounge, 700 SF of office space, 4,635 SF of storage space, and 5,400 SF for boat and repair services. A 3,200 SF area for COP is included as part of the members lounge and is fully contained within the total 4,525 SF of total private member lounge area. The proposed ships store building contains 1,400 SF of office space and 1,800 SF of retail space. A 2,150 SF area of outdoor COP is also proposed adjacent to the ships store. A single access point is located on the north side of the subject property onto Inlet Drive, classified as local road maintained by the County.

TRIP GENERATION

Trip generation for the proposed development was determined using the Institute of Transportation Engineers Trip Generation Manual, 11th Edition. We have utilized the following Land Use Codes (LUC) for trip generation analysis:

- LUC 420 “Marina” was used for analysis of the boat barn, slips, and all marina ancillary uses. The ancillary uses of the marina cover 9,590 SF of the maintenance and member building and is comprised of:
 - 4,525 SF private member lounge, which includes 3,200 SF of interior COP area that is fully contained within the total 4,525 SF of total private member lounge area.
 - 700 SF office space
 - 4,365 SF storage space
- LUC 712 “Small Office Building” was used for analysis of the 1,400 SF office portion of the ships store building.
- LUC 851 “Convenience Store” was used for analysis of the 1,800 SF retail portion of the ship store building.
- LUC 932 “High-Turnover Restaurant” for analysis of the 10,000 SF restaurant, which consists of a 7,500 SF restaurant building and 2,500 SF of outdoor seating space. The 2,150 SF of outdoor COP has also been included in this land use as directed by staff.
- LUC 943 “Automobile Parts and Service Center” was used for analysis of the 5,400 SF boat and repair services portion of the member and maintenance building, which is the only portion of the building that will be accessible to the public. While the ITE does not have a land use for boat repair and services, this ITE land use was determined to most closely resemble the proposed use.

The following tables summarize the anticipated increase in number of AM and PM peak hour trips and total daily trip generation of the proposed buildings.

ITE Trip Generation (11th Ed)**Table 1A: Trip Rates**

Land Use	Weekday A.M. Peak Hour of adjacent street traffic	Weekday P.M. Peak Hour of adjacent street traffic	Total Daily
Marina (420)	Trips = 0.07 per berth 33% entering, 67% exiting	Trips = 0.21 per berth 60% entering, 40% exiting	Trips = 2.41 per berth
Small Office Building (712)	Trips = 1.67 per 1,000 square feet 82% entering, 18% exiting	Trips = 2.16 per 1,000 square feet 34% entering, 66% exiting	Trips = 14.39 per 1,000 sf
Convenience Store (851)	Trips = 62.54 per 1,000 square feet 50% entering, 50% exiting	Trips = 49.11 per 1,000 square feet 51% entering, 49% exiting	Trips = 762.28 per 1,000 sf
Restaurant (932)	Trips = 9.57 per 1,000 square feet 55% entering, 45% exiting	Trips = 9.05 per 1,000 square feet 61% entering, 39% exiting	Trips = 107.20 per 1,000 sf
Automobile Parts & Service Center (943)	Trips = 1.91 per 1,000 square feet 72% entering, 28% exiting	Trips = 2.06 per 1,000 square feet 39% entering, 61% exiting	Trips = 16.60 per 1,000 sf

Table 1B: Trip Generation

	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Total Daily (2 way)
	In	Out	Total	In	Out	Total	
Marina (420) 283 Berths	7	13	20	36	24	60	683
Small Office Building (712) 1,400 SF	2	1	3	1	3	4	21
Convenience Store (851) 1,800 SF	57	56	113	44	45	89	1,373
Restaurant (932) 12,150 SF	64	53	117	67	43	110	1,303
Automobile Parts & Service Center (943) 5,400 SF	8	3	11	5	7	12	90
Total	138	126	264	153	122	275	3,470

TRIP DISTRIBUTION

Based on the project's location, directions to shopping centers, residential locations, regional business locations, probable client service locations, and other existing uses in the area, a distribution of site traffic to the surrounding roadway system was formulated. This analysis was on the anticipated routes that drivers would utilize when approaching or leaving the site.

All project traffic is expected to utilize Inlet Drive to access the project site and Orange Grove Blvd, which is the nearest major collector road and only road that provides access to and from other areas within the County. The trip distribution has been anticipated as follows:

- 100% on Inlet Drive towards Orange Grove Blvd.
- 60% on Orange Grove Blvd, north of Inlet Drive, towards Hancock Bridge Pkwy.
- 40% on Orange Grove Blvd, south of Inlet Drive, towards Birkdale Avenue.

Based on the trip distribution above, project trips are distributed to the roadway as shown below:

Table 2: Trip Distribution

Direction	Distribution	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Inlet Drive	100%	138	126	264	153	122	275
Orange Grove Blvd N/o Inlet Drive	60%	83	76	158	92	73	165
Orange Grove Blvd S/o Inlet Driver	40%	55	50	106	61	49	110

ANNUAL GROWTH RATE

Historical Average Annual Daily Traffic (AADT) data was obtained from FDOT to produce a traffic growth rate over time to establish future roadway volumes. Data was obtained from FDOT Traffic Monitoring Site 1269, located on Orange Grove Blvd, between Tropic Terrace and Java Way, due to its proximity to the site and it being the only available count station on Orange Grove Blvd.

Table 3: Growth Rate

Roadway	Segment	Station	2015 AADT	2022 AADT	Years	Growth Rate
Orange Grove Blvd	Btwn. Tropic Terrace and Java Way	FDOT Site 1269	9,200	10,500	7	1.91%

LEVEL OF SERVICE ANALYSIS

A roadway link level of service analysis was conducted for Orange Grove Blvd utilizing data from the 2024 Lee County Level of Service and Concurrency Report. This data was used to determine the current peak hour volume and level of service performance standard. The growth rate determined using FDOT data was applied to the current 100th highest peak hour volume to determine the 100th highest peak hour volume under the future 2027 condition. The peak hour volumes were compared with the service volumes contained in the Lee County Service Volume Reports, provided in Table 4, to determine the operating LOS of the roadways.

Table 4: Generalized Peak Hour Directional Service Volumes

Roadway Type	Functional Classification	LOS A Volume	LOS B Volume	LOS C Volume	LOS D Volume	LOS E Volume
2LN	Collector	*	*	550	860	860

Table 5: 100th Highest Hour LOS Analysis – Existing & Future without Project

Direction	Roadway Type	Performance Standard		2023 100 th Highest Peak Hour	2023 LOS	2027 Future Forecast	2027 LOS
		LOS	Capacity				
North	2LN	E	860	539	C	581	D
South	2LN	E	860	539	C	581	D

Table 6: 100th Highest Hour LOS Analysis – Future with Project

Direction	Roadway Type	Performance Standard		2027 100 th Highest Peak Hour	Project Traffic (Directional)		2027 Future Forecast + Project		LOS
		LOS	Capacity		AM	PM	AM	PM	
North	2LN	E	860	581	83	92	664	673	D
South	2LN	E	860	581	55	61	636	642	D

An LOS analysis was also performed for the intersection of Orange Grove Blvd and Inlet Drive, which is an unsignalized intersection. Lee County does not provide traffic data for Inlet Drive as it is classified as a local road and only provides access to the project location and the residences in the immediate vicinity of Inlet Drive. The existing volume on Inlet Drive was therefore estimated by the existing number of residences that utilize Inlet Drive for access (150 residences) and assigning the number of trips based on the ITE Trip Generation for Single-Family Detached Housing (LUC 210). Similarly, future volume on Inlet Drive without the project was estimated by considering all properties that utilize Inlet Drive for access (excluding the subject property) as fully developed with single-family residences (153 total residential properties). The estimated existing and future volumes were distributed following the same distribution described above for the project trips. The intersection LOS analysis was performed in Synchro utilizing the HCM method for unsignalized intersections. Table 7 below summarizes the results of this analysis showing the LOS of the intersection during the AM and PM peak hours under the existing condition and 2027 future condition both with and without the project. The complete Synchro reports are attached at the end of this report.

Table 7: Orange Grove Blvd & Inlet Dr – Intersection LOS Summary

	AM Peak Hour	PM Peak Hour
Existing LOS	A	C
2027 Future w/o Project LOS	A	D
2027 Future with Project LOS	E	E

The intersection LOS is expected to be the same for the existing and future conditions without the project during the AM peak period and decrease from LOS C to LOS D during the PM peak period. Under future conditions with the project the LOS is expected to decrease to LOS E for both the AM and PM peak periods. While the LOS for this intersection will decrease with the project, the intersection is still expected to operate within its LOS performance standard of E under this condition.

WARRANT ANALYSIS

A warrant analysis was conducted to determine whether exclusive turn lanes are required at the intersection of Orange Grove Blvd and Inlet Drive. The warrant analysis follows the “Turn Lane Policy” as set forth in Lee County Administrative Code AC-11-4. In each analysis, a separate turn lane is required when two (2) or more of the following warrants are satisfied:

Right Turn Lane Warrant Analysis for Inlet Drive:

Intersecting Street/Connection to Collector Street:

1. No (Posted Speed $\geq$ 35 mph)
2. Yes (Number of right turning vehicles is equal to or greater than 90 during any peak hour)
3. No (Signalized intersection)
4. N/A

Right Turn Lane Warranted: No

Left Turn Lane Warrant Analysis for Inlet Drive:

Intersecting Street/Connection to Collector Street:

1. No (Posted Speed $\geq$ 35 mph)
2. Yes (Number of left turning vehicles is equal to or greater than 60 during any peak hour)
3. No (Signalized intersection)
4. N/A

Left Turn Lane Warranted: No

Right Turn Lane Warrant Analysis for Orange Grove Blvd:

Collector Street:

1. No (Posted Speed $\geq$ 35 mph)
2. Yes (Right turn volume is equal to or greater than 30 during any peak hour)
3. No (Sight Distance $<$ 200 ft)
4. No (Signalized intersection)
5. N/A

Left Turn Lane Warrant Analysis for Orange Grove Blvd:

Collector Street:

1. No (Posted Speed $\geq$ 35 mph)
2. Yes (Left turn volume is equal to or greater than 30 during any peak hour)
3. No (Sight Distance < 200 ft)
4. No (Signalized intersection)
5. No (Intersects arterial or collector street)
6. N/A
7. N/A

CONCLUSION

Traffic as depicted in this report will generate 3,470 daily trips with a maximum of 275 trips occurring during the peak hour. These trips will affect Inlet Drive and distribute to the nearby major collector road, Orange Grove Blvd, which is located approximately 0.5 miles west of the subject property and provides access to all other areas within the county. All other roads connecting to Inlet Drive only provide access to the residential properties within the immediate vicinity of the subject property. The roadway link analysis shows that northbound Orange Grove Blvd will decrease from LOS C, under the existing and future conditions without the project, to LOS D under the future condition with the project. The intersection LOS analysis shows that the intersection of Orange Grove Blvd and Inlet Drive will decrease to LOS E under the future condition with the project. While the LOS of the roadways expected to decrease with the project, the roadways are still expected to operate within their performance standard of LOS E.

HCM Unsignalized Intersection Capacity Analysis

3: Orange Grove Blvd & Inlet Dr

08/07/2025

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	31	47	492	11	16	523
Future Volume (Veh/h)	31	47	492	11	16	523
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	34	51	535	12	17	568
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			Raised
Median storage veh						1
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1143	541			547	
vC1, stage 1 conf vol	541					
vC2, stage 2 conf vol	602					
vCu, unblocked vol	1143	541			547	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	91			98	
cM capacity (veh/h)	354	541			1022	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	85	547	585			
Volume Left	34	0	17			
Volume Right	51	12	0			
cSH	447	1700	1022			
Volume to Capacity	0.19	0.32	0.02			
Queue Length 95th (ft)	12	0	1			
Control Delay (s/veh)	14.9	0.0	0.5			
Lane LOS	B		A			
Approach Delay (s/veh)	14.9	0.0	0.5			
Approach LOS	B					
Intersection Summary						
Average Delay		1.3				
Intersection Capacity Utilization		51.7%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Orange Grove Blvd & Inlet Dr

08/07/2025

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	21	31	508	36	53	486
Future Volume (Veh/h)	21	31	508	36	53	486
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	34	552	39	58	528
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			Raised
Median storage veh						1
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1216	572			591	
vC1, stage 1 conf vol	572					
vC2, stage 2 conf vol	644					
vCu, unblocked vol	1216	572			591	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	93	93			94	
cM capacity (veh/h)	325	520			985	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	57	591	586			
Volume Left	23	0	58			
Volume Right	34	39	0			
cSH	419	1700	985			
Volume to Capacity	0.14	0.35	0.06			
Queue Length 95th (ft)	8	0	3			
Control Delay (s/veh)	14.9	0.0	1.6			
Lane LOS	B		A			
Approach Delay (s/veh)	14.9	0.0	1.6			
Approach LOS	B					
Intersection Summary						
Average Delay		1.4				
Intersection Capacity Utilization		70.8%		ICU Level of Service		C
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Orange Grove Blvd & Inlet Dr

08/07/2025

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	32	48	533	11	17	564
Future Volume (Veh/h)	32	48	533	11	17	564
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	52	579	12	18	613
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			Raised
Median storage veh						1
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1234	585			591	
vC1, stage 1 conf vol	585					
vC2, stage 2 conf vol	649					
vCu, unblocked vol	1234	585			591	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	90			98	
cM capacity (veh/h)	330	511			985	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	87	591	631			
Volume Left	35	0	18			
Volume Right	52	12	0			
cSH	419	1700	985			
Volume to Capacity	0.21	0.35	0.02			
Queue Length 95th (ft)	14	0	1			
Control Delay (s/veh)	15.8	0.0	0.5			
Lane LOS	C		A			
Approach Delay (s/veh)	15.8	0.0	0.5			
Approach LOS	C					
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization			54.8%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: Orange Grove Blvd & Inlet Dr

08/07/2025

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	21	32	549	36	55	526
Future Volume (Veh/h)	21	32	549	36	55	526
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	35	597	39	60	572
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			Raised
Median storage veh						1
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1309	617			636	
vC1, stage 1 conf vol	617					
vC2, stage 2 conf vol	692					
vCu, unblocked vol	1309	617			636	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	93			94	
cM capacity (veh/h)	302	490			947	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	58	636	632			
Volume Left	23	0	60			
Volume Right	35	39	0			
cSH	393	1700	947			
Volume to Capacity	0.15	0.37	0.06			
Queue Length 95th (ft)	9	0	4			
Control Delay (s/veh)	15.7	0.0	1.6			
Lane LOS	C		A			
Approach Delay (s/veh)	15.7	0.0	1.6			
Approach LOS	C					
Intersection Summary						
Average Delay		1.5				
Intersection Capacity Utilization		75.1%		ICU Level of Service		D
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Orange Grove Blvd & Inlet Dr

08/07/2025

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	82	124	533	66	100	564
Future Volume (Veh/h)	82	124	533	66	100	564
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	89	135	579	72	109	613
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			Raised
Median storage veh)						1
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1446	615			651	
vC1, stage 1 conf vol	615					
vC2, stage 2 conf vol	831					
vCu, unblocked vol	1446	615			651	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	66	73			88	
cM capacity (veh/h)	259	491			935	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	224	651	722			
Volume Left	89	0	109			
Volume Right	135	72	0			
cSH	362	1700	935			
Volume to Capacity	0.62	0.38	0.12			
Queue Length 95th (ft)	71	0	7			
Control Delay (s/veh)	29.8	0.0	2.9			
Lane LOS	D		A			
Approach Delay (s/veh)	29.8	0.0	2.9			
Approach LOS	D					
Intersection Summary						
Average Delay		5.5				
Intersection Capacity Utilization		89.4%		ICU Level of Service		E
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: Orange Grove Blvd & Inlet Dr

08/07/2025

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	70	105	549	97	147	526
Future Volume (Veh/h)	70	105	549	97	147	526
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	76	114	597	105	160	572
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			Raised
Median storage veh)						1
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1542	650			702	
vC1, stage 1 conf vol	650					
vC2, stage 2 conf vol	892					
vCu, unblocked vol	1542	650			702	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	67	76			82	
cM capacity (veh/h)	228	469			895	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	190	702	732			
Volume Left	76	0	160			
Volume Right	114	105	0			
cSH	330	1700	895			
Volume to Capacity	0.58	0.41	0.18			
Queue Length 95th (ft)	61	0	12			
Control Delay (s/veh)	29.7	0.0	4.2			
Lane LOS	D		A			
Approach Delay (s/veh)	29.7	0.0	4.2			
Approach LOS	D					
Intersection Summary						
Average Delay		5.4				
Intersection Capacity Utilization		90.9%		ICU Level of Service		E
Analysis Period (min)		15				

SPEATH
ENGINEERING

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MIAMI, FL 33131 • PHONE: 305-584-4213

A circular professional engineer seal for Matthew S. Speath. The outer ring contains the text "MATTHEW S. SPEATH" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside the ring, the word "LICENSE" is at the top, "No. 67675" is in the center, and "STATE OF FLORIDA" is at the bottom, also separated by two stars.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY MATTHEW S. SPEATH, P.E. ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

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