

**PELICAN LANDING – RAPTOR BAY**  
**REZONING**  
**TRANSPORTATION METHODOLOGY OUTLINE**

**Project No. 15534**

**June 24, 2016**

**Prepared by:**  
**DAVID PLUMMER & ASSOCIATES, INC.**  
**2149 McGregor Boulevard**  
**Fort Myers, Florida 33901**



**Pelican Landing – Raptor Bay Rezoning**  
**Transportation Methodology Outline**

**Introduction**

The Pelican Landing DRI is an approved master planned mixed-use community located on US 41 in Lee County, Village of Estero and the City of Bonita Springs, approximately three miles north of the Lee/Collier County Line, Exhibit 1. Approved in 1994, Pelican Landing was planned to include 4,400 residential dwelling units, 300,000 square feet of retail space, 475,000 square feet of office space, 750 hotel rooms, and ancillary recreation and support uses.

The DRI has undergone several modifications since its original approval in 1994. The currently approved DRI reflects a total 3,912 residential dwelling units, along with commercial uses and on-site recreational amenities. To-date, the DRI is approximately 70% completed.

The purpose of this traffic analysis is to support the rezoning application of 55 acres of the Raptor Bay Golf Club (that have been annexed into the City of Bonita Springs) to allow multifamily dwelling units to be developed, including residential high-rises of up to 400 dwelling units. Those 400 multifamily units have already been approved as part of the overall DRI and Lee County RPD/CPD designations. Due to the passage of time from the original approval, the rezoning traffic study is focused on updating the anticipated traffic conditions along the Coconut Road corridor.

**Development Parameters**

The currently approved Pelican Landing DRI development parameters are summarized below.

<b>Pelican Landing DRI</b>			
<b>Approved Development Parameters Summary</b>			
<b>Land Use</b>	<b>Overall DRI Buildout <sup>(1,2)</sup></b>	<b>Coconut Point Resort Drive</b>	
		<b>Raptor Bay <sup>(1,2)</sup> Golf Club</b>	<b>Hyatt Residence Club <sup>(1,2)</sup> Coconut Plantation</b>
Single-Family	930 d.u.	-	-
Multifamily	2,982 d.u.	-	362 d.u.
Hotel	750 rooms	-	-
Retail	300,000 sq. ft.	-	-
Restaurant	5,000 sq. ft.	-	-
Office	475,000 sq. ft.	-	25,000 sq. ft. <sup>(4)</sup>
Marina	215 slips	-	-
Golf	77 holes	27 holes <sup>(3)</sup>	-
Tennis	24 courts	-	-

**Footnotes:**

- (1) Per Pelican Landing Bonita 16<sup>th</sup> DRI DO NM 8-7-15, Exhibit “D”. Please also refer to Appendix A.
- (2) Pelican Landing DRI RPC/CPD (Lee County) - Approved as of June, 2016.
- (3) Includes club house and Braxton’s Bar and Grill.
- (4) Includes administrative office, maintenance, restaurant and supporting amenities.



The current approved buildout year of the Pelican Landing DRI is 2024.

Under existing zoning, the 55 acre parcel at Raptor Bay may be developed as golf-related services and recreational amenities. The proposed rezoning would allow the development of a maximum of 400 high-rise residential (multifamily) units already approved as part of the overall DRI, and summarized below.

<b>Pelican Landing DRI - Raptor Bay Golf Club Development Parameters Summary</b>				
	<b>Allowed <sup>(1)</sup> Under Current Zoning</b>	<b>Proposed <sup>(1)</sup> With Rezoning</b>	<b>Allowed vs. Proposed Difference <sup>(1)</sup></b>	<b>Difference <sup>(1)</sup> From Approved DRI</b>
Single-Family	-	-	-	-
Multifamily	-	400 d.u. <sup>(4)</sup>	+ 400 d.u. <sup>(4)</sup>	No Change
Hotel	-	-	-	-
Retail	5,000 sq. ft. <sup>(2)</sup>	-	-	No Change
Restaurant	15,000 sq. ft. <sup>(2)</sup>	-	-	No Change
Office	5,000 sq. ft. <sup>(2)</sup>	-	-	No Change
Marina	-	-	-	-
Golf	27 holes <sup>(3)</sup>	27 holes <sup>(3)</sup>	-	No Change
Tennis	2 courts <sup>(2)</sup>	4 courts <sup>(2)</sup>	+2 courts <sup>(2)</sup>	No Change

**Footnotes:**

- (1) Pelican Landing DRI RPD/CPD (Lee County) - Approved as of June, 2016.
- (2) Estimated allocation per approved DRI RPD/CPD.
- (3) Includes club house and Braxton's Bar and Grill.
- (4) Approved RPD/CPD multifamily dwelling units within DRI.  
High-rise towers – Maximum units on 55 acres – Annexed into City of Bonita Springs.

**Methodology Outline**

The proposed transportation methodology is described below:

- 1) PROJECT TRIP GENERATION – Trip generation calculation will be performed based on the following parameters.
  - a. Institute of Transportation Engineers, Trip Generation, 9<sup>th</sup> Edition.
    - Allowed Use: ITE LUC 826 – Specialty Retail Center.  
ITE LUC 932 – High Turnover (Sit-Down) Restaurant  
ITE LUC 710 – General Office Building  
ITE LUC 439 – Golf Course  
ITE LUC 490 – Tennis Courts
    - Proposed Use: LUC 230 – Residential Condominium/Townhouse  
ITE LUC 439 – Golf Course  
ITE LUC 490 – Tennis Courts
    - Average trip generation rates may be used only when a linear regression equation is not available.



- b. Weekday (ADT), AM and PM Peak Hour of Adjacent Street Traffic will be provided.
- c. Internal (Mixed-Use Development) capture rates (where applicable) based on ITE, Trip Generation Handbook, 3<sup>rd</sup> Edition, August 2014.
- d. Overall internal trip capture of the high-rise residential units is not expected to exceed 50% of the total trip generation.

2) ROADWAY ANALYSIS – The roadway analysis will reflect the following.

a. Roadways Under Study

- Coconut Road
  - Coconut Point Resort Drive to Spring Creek Road
  - Spring Creek Road to US 41
  - US 41 to Three Oaks Parkway
- Pelican Colony Boulevard to Coconut Road
  - Walden Center Drive to US 41
  - US 41 to Via Coconut Point
- US 41
  - Corkscrew Road to Coconut Road
  - Coconut Road to Pelican Colony Boulevard
  - Pelican Colony Boulevard to Old 41
- Via Coconut Point
  - Pelican Colony Boulevard to Coconut Road
  - Coconut Road to Corkscrew Road

b. Traffic Data/PSCF/Growth Trends Sources

- 2016 Peak Season Traffic Counts, where available
- Pelican Landing/Spring Creek West Traffic Monitoring Report, August 21, 2015
- 2015 Lee County Concurrency Report
- 2015 Lee County Traffic Count Report
- Coconut Point, 2012-2014 DRI Monitoring Report, March 10, 2015
- 2015 FDOT Florida Traffic Online
- Coconut Road Traffic Study - From Estero Bay to Three Oaks Parkway, 06/08/2016

3) INTERSECTION ANALYSIS – The intersection analysis will reflect the following.

a. Intersections Under Study

- Coconut Road (West of US 41)
  - US 41
  - Walden Center Drive
  - Elks Lodge
  - North Commons Drive

- Coconut Shores Drive
  - Olde Meadowbrook Boulevard
  - Spring Creek Road
  - Eldorado Boulevard
  - Community Development Districts – Bayside/Bay Creek
  - Pelican Landing Beach Club Parking
  - Pelican Landing Construction Entrance
  - The Colony (Tuscany Way), Inbound One-way and Outbound One-way
  - The Colony (West Entrance)
  - Hyatt Main Entrance
  - Coconut Point Resort Drive (Project)
  - Hyatt Employee Entrance
  - Hyatt Delivery Entrance
- Coconut Road (East of US 41)
    - Via Coconut Point
  - Pelican Colony Boulevard
    - Walden Center Drive
    - US 41
    - Via Coconut Point

b. Traffic Data/PSCF/Growth Trends Sources

- 2016 Peak Season TM Traffic Counts, where available
- 2015 Peak Season TM Traffic Counts, where available
- Pelican Landing/Spring Creek West Traffic Monitoring Report, August 21, 2015
- 2015 Lee County Concurrency Report
- 2015 Lee County Traffic Count Report
- Coconut Point, 2012-2014 DRI Monitoring Report, March 10, 2015
- 2015 FDOT Florida Traffic Online
- Coconut Road Traffic Study - From Estero Bay to Three Oaks Parkway, 06/08/2016

4) ANALYSIS SCENARIOS – The following analysis scenarios will be provided

a. Existing Traffic Conditions

- Year 2015/2016
- PM Peak Hour, Peak Direction, Peak Season LOS will be reported
- Adopted LOS service volumes and LOS standards will be assumed for roadway segments
- Arterial analysis/LOS based on Synchro/SimTraffic may be performed
- Intersection LOS based on Synchro/HCM methodologies

b. Future Traffic Conditions With Allowable Use

- Buildout - Year 2024 is assumed
- Background Traffic will include the following
  - General thru traffic growth
  - Developments identified in Village of Estero's Coconut Road Study
  - Buildout of Pelican Landing DRI
  - Buildout of Coconut Point DRI
- PM Peak Hour, Peak Direction, Peak Season LOS will be reported
- Adopted LOS service volumes and LOS standards will be assumed for roadway segments
- Arterial analysis/LOS based on Synchro/SimTraffic may be performed
- Intersection LOS based on Synchro/HCM methodologies
- Recommended improvements may include the following, as needed
  - Intersection Turn Lanes
  - Signalization/Re-timing
  - Roundabouts
  - Roadway widening/enhancements

c. Future Traffic Conditions With Proposed Use

- Buildout - Year 2024 is assumed
- Background Traffic will include the following
  - General thru traffic growth
  - Developments identified in Village of Estero's Coconut Road Study
  - Buildout of Pelican Landing DRI
  - Buildout of Coconut Point DRI
- PM Peak Hour, Peak Direction, Peak Season LOS will be reported
- Adopted LOS service volumes and LOS standards will be assumed for roadway segments
- Arterial analysis based on Synchro/SimTraffic may be performed
- Intersection LOS based on Synchro/HCM methodologies
- Recommended improvements may include the following, as needed
  - Intersection Turn Lanes
  - Signalization/Re-timing
  - Roundabouts
  - Roadway widening/enhancements