

NOVEMBER 7, 2025

760 PONCE DE LEON BOULEVARD
(PROFESSIONAL MEDICAL OFFICE BUILDING)
TRAFFIC IMPACT STUDY
DRAFT REPORT



ENGINEER'S CERTIFICATION

PROJECT: 760 Ponce de Leon Boulevard (Professional Medical Office Building) – Traffic Impact Study

LOCATION: 760 Ponce de Leon Boulevard, Coral Gables, FL 33134

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1 INTRODUCTION

1.1 Project Background

The proposed project will be a redevelopment of the existing 17,245 Square Feet (SF) medical office located at 760 Ponce de Leon in Coral Gables, Florida. The redeveloped site consists of approximately 96,770 SF of medical office space, 9,910 SF of commercial/retail space, and four (4) town homes. A location map of the development is identified in **Figure 1**.

Two vehicular access points are provided on Ponce de Leon Boulevard to the proposed site. An ingress only right-turn access is present just north of Veragua Avenue for the southbound vehicles on Ponce de Leon Boulevard. An ingress-egress right-in and right-out access is provided south of Oviedo Avenue. The proposed redevelopment is expected to be completed by 2028. A site plan for the project is provided in **Appendix A**.

1.2 Study Objective

The purpose of this study is to conduct a traffic impact analysis of the proposed development on the adjacent roadway network. The study includes estimating project-generated trips, distribution of the trips generated, analysis of the roadway and intersection capacity along the surrounding roadway network, and evaluating the multimodal facilities in the vicinity of the development.

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Figure 1. Development Location Map

1.3 Study Methodology

The study methodology is based upon the City of Coral Gables' Traffic Impact Study Process and Methodology document. The traffic impact study requirements were discussed with and approved by the City of Coral Gables at a methodology meeting held on August 15th, 2025, along with the developer. A summary of the study tasks and methodology is as follows:

Data Collection

- Collect 72-Hour vehicular traffic counts during typical weekdays (Tuesday, Wednesday, and Thursday), avoiding holidays, adverse weather events, school closures, special events, and/or incidents.
- Collect 4-Hour Turning Movement Counts (TMCs), in a minimum of two 2-hour consecutive periods that correspond to the peak periods of the adjacent roadway network on a typical weekday.
- Obtain and review all relevant documentation, including intersection signal data (check operations and clearances), traffic impact studies of previously committed developments, and a list of programmed projects within the vicinity of the development.
- Conduct field reviews during the AM and PM peak periods to assess traffic operations at the adjacent roadway links, intersections, and identify any existing attractors/generators in the area.

Traffic Analysis

- Develop future projected background traffic volumes, including any committed developments in the vicinity.
- Develop project-specific trip generation rates and distribute traffic along the surrounding roadway network.
- Conduct Level-Of-Service (LOS), and arterial capacity analysis for existing and future conditions.
- Perform Multimodal LOS analysis for segments in the vicinity of the proposed development.

2 DATA COLLECTION & EXISTING CONDITIONS

2.1 72-Hour Vehicular Traffic Counts

The 72-hour vehicular traffic counts were collected on select dates per request of the city: Wednesday, September 24th, 2025; Thursday, September 25th, 2025; and Tuesday, September 30th, 2025 at the following roadway segments adjacent to the project area:

1. Avila Court between Ponce de Leon Boulevard and Boabadilla Street
2. Ponce de Leon Boulevard between Veragua Avenue and Avila Court
3. Boabadilla Street between Ponce de Leon Boulevard and Avila Court
4. Ponce de Leon Boulevard between Boabadilla Street and Oviedo Avenue

The counts revealed that overall peak hours of traffic were from **8:00 AM – 9:00 AM**, and from **5:00 PM – 6:00 PM**. The summary of counts is provided in **Table 1** below, and the raw traffic counts are provided in **Appendix B**.

Table 1. 72-Hour Traffic Counts

Roadway	Approach	Count Date	Daily Traffic	ADT	AADT
Avila Court b/w Ponce de Leon Boulevard & Boabadilla Street	Eastbound	9/24/2025	53	48	50
		9/25/2025	47		
		9/30/2025	45		
	Westbound	9/24/2025	306	300	300
		9/25/2025	314		
		9/30/2025	280		
Ponce de Leon Boulevard b/w Veragua Avenue & Avila Court	Northbound	9/24/2025	5,628	5,758	5,900
		9/25/2025	5,797		
		9/30/2025	5,849		
	Southbound	9/24/2025	4,937	4,969	5,000
		9/25/2025	5,040		
		9/30/2025	4,929		
Boabadilla Street b/w Ponce de Leon Boulevard & Avila Court	Northbound	9/24/2025	167	170	150
		9/25/2025	160		
		9/30/2025	182		
	Southbound	9/24/2025	190	187	200
		9/25/2025	191		
		9/30/2025	180		
Ponce de Leon Boulevard b/w Boabadilla Street & Oviedo Avenue	Northbound	9/24/2025	5388	5,539	5700
		9/25/2025	5629		
		9/30/2025	5599		
	Southbound	9/24/2025	5212	5,143	5200
		9/25/2025	5194		
		9/30/2025	5024		

2.2 Four-Hour Turning Movement Counts (TMCs)

Four-hour turning movement counts (TMCs) were collected for the AM and PM Peak hours (two hours per peak period) on Thursday, September 25th, 2025, at the following intersections:

1. Ponce de Leon Boulevard and Douglas Road (Signalized)
2. Ponce de Leon Boulevard and Avila Court (Minor Street Stop Controlled)
3. Ponce de Leon Boulevard and Veragua Avenue (Minor Street Stop Controlled)
4. Ponce de Leon Boulevard and Oviedo Avenue (Minor Street Stop Controlled)
5. Boabadilla Street and Avila Court (Minor Street Yield Controlled)
6. Ponce de Leon Boulevard and Boabadilla Street (Minor Street Stop Controlled)
7. SR 90/SW 8 Street (SW 8 Street) and Ponce de Leon Boulevard (Signalized)
8. SW 8 Street and Galiano Street (Signalized)

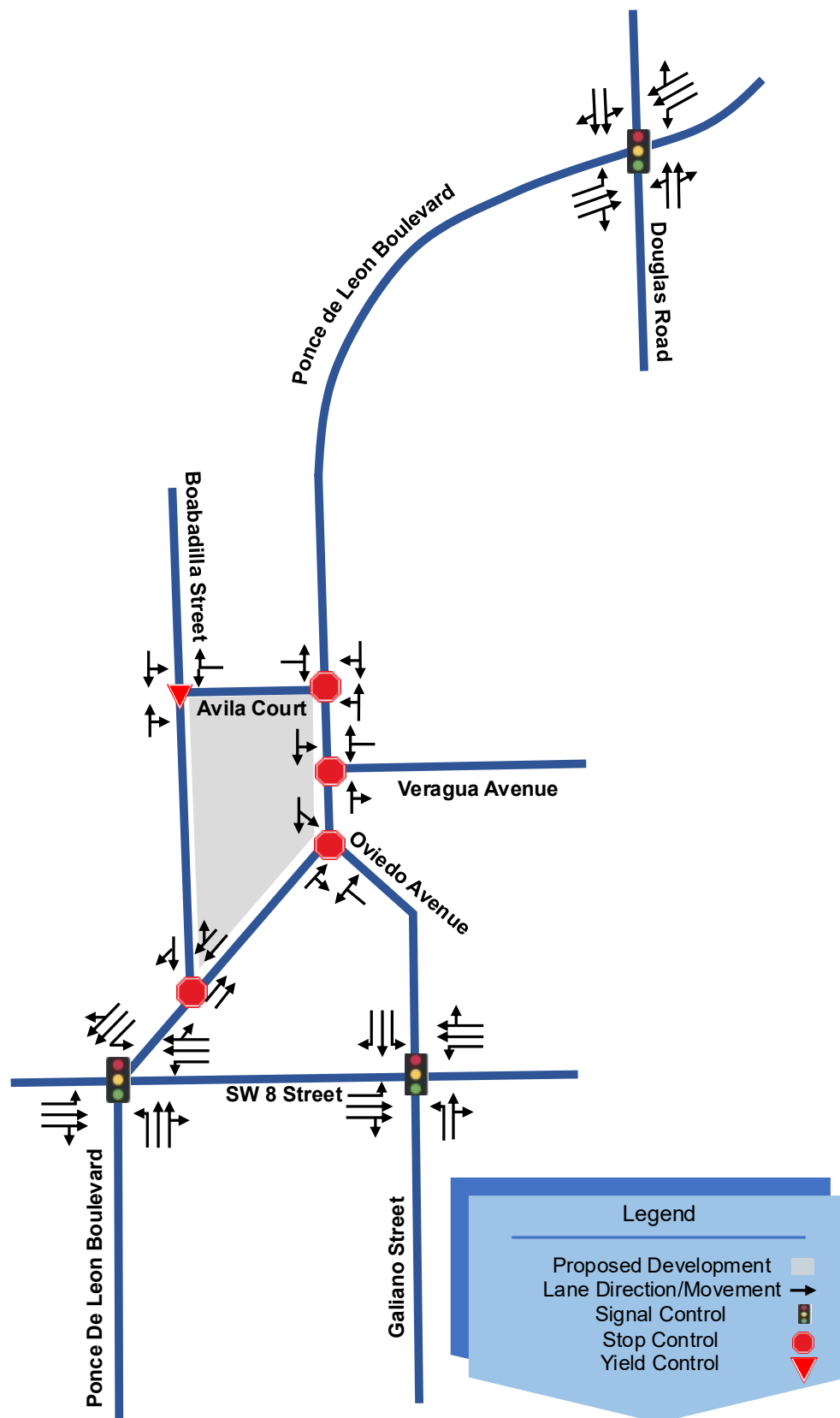
Figure 2 provides a general location map of the intersections. The Florida Department of Transportation (FDOT) Peak Season Conversion Factor (PSCF) of 1.02 was applied to the existing TMCs to account for seasonal variations. Additionally, upstream and downstream volumes were reviewed to identify any discrepancies in traffic counts between adjacent intersections. At most intersections, the variation in volumes was less than 5%, which is within the 10% allowable range specified in the FDOT Traffic Analysis Handbook. However, during the AM peak period, the variation between the intersections of Ponce de Leon Boulevard with Avila Court and Douglas Road was approximately 20%. This discrepancy can be attributed to several factors, including the presence of multiple residential side streets along Ponce de Leon Boulevard that serve as traffic sources and sinks. Additionally, this segment of Ponce de Leon Boulevard includes several on-street parking areas. During the AM peak field observations, the parking lot at 747 Ponce de Leon Boulevard was at full capacity, with vehicles waiting on Ponce de Leon Boulevard to enter the lot. Some drivers were also likely circulating the corridor in search of available on-street parking, contributing to the higher observed variation in traffic volumes between the intersections of Ponce de Leon Boulevard at Douglas Road and Avila Court.

The seasonally adjusted TMCs (intersection volumes) were utilized in the capacity analysis for the existing conditions, as well as for future conditions with and without the development, with an applied growth rate. The existing lane configuration and signalization for the analyzed intersections are shown in **Figure 3**. The existing AM and PM peak hour intersection volumes are

shown in **Figure 4**. The raw traffic counts are provided in Appendix B. The FDOT PSCF report is provided in **Appendix C**.



Figure 2. Intersection Location Map

**Figure 3. Intersection Configuration Map**

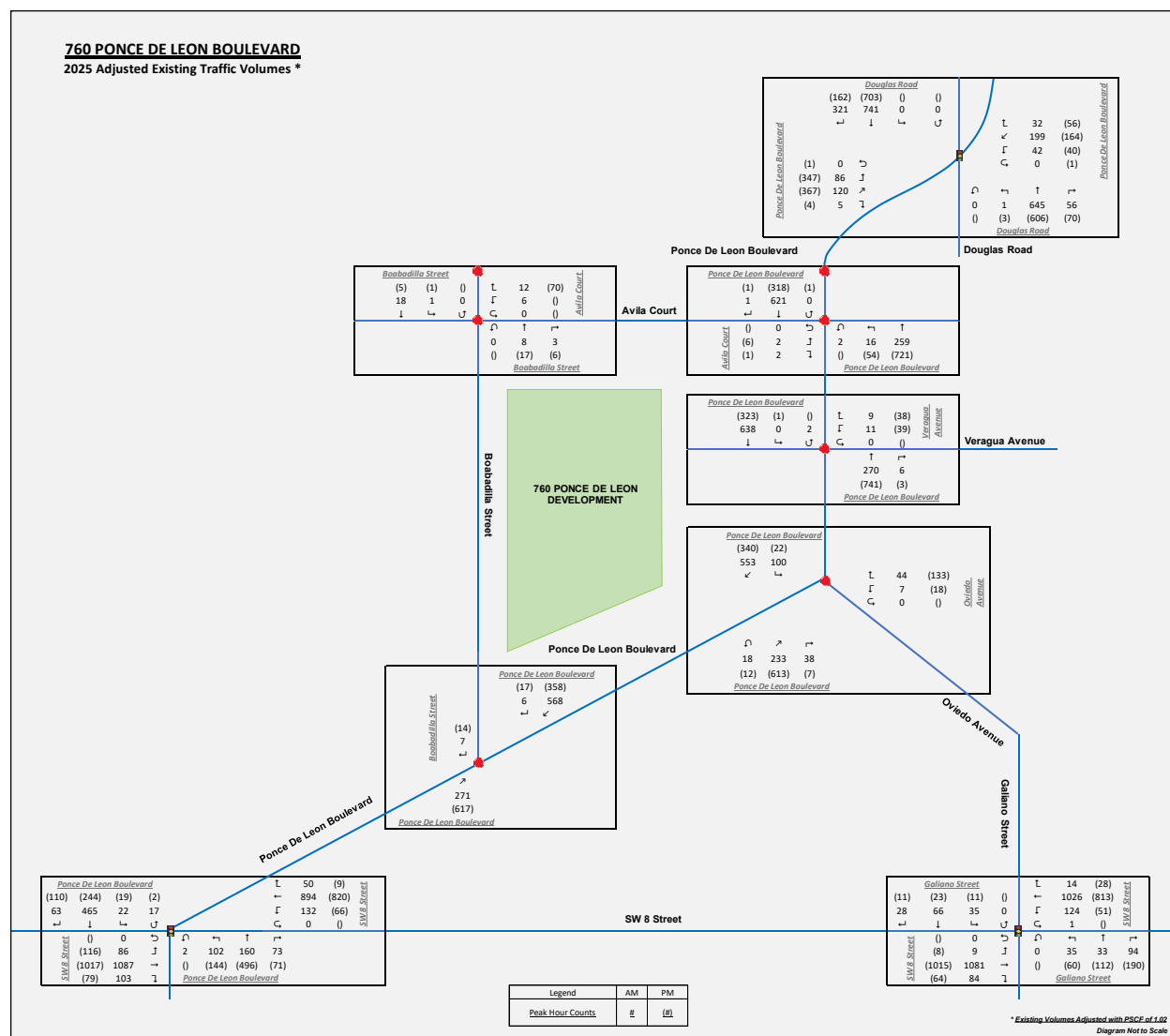


Figure 4. Seasonally adjusted 2025 Existing Traffic Volumes

2.3 Signalized Intersection Data

Signal timing data for the three signalized intersections within the study area was obtained from the Miami-Dade County Traffic Signal and Signs Division (TS&S) database. The three signalized intersections within the study area are semi-actuated; vehicle actuation is provided via loop detection at Galliano Street and SW 8 Street intersection and video detection at the following intersections: Douglas Road and Ponce de Leon Boulevard, and Ponce de Leon Boulevard and SW 8 Street. All three signalized intersections have pedestrian crosswalks on each leg with the intersection of Ponce de Leon Boulevard having standard crosswalk pavement markings and the other two intersections having high-emphasis crosswalk pavement markings. Pedestrian phases

were actuated for the major street at all the intersections and for the minor street at the intersection of Galiano Street and SW 8 Street. For the traffic signals on SW 8 Street, the major street is SW 8 Street with the signals coordinated east-west. For the intersection of Ponce de Leon Boulevard and Douglas Road, the signal is coordinated north-south with Douglas Road considered as the major street.

A review of the All-Red Clearance Intervals and Yellow Change Intervals at the signalized intersections was performed based on Section 3.6.2 of the 2025 FDOT Traffic Engineering Manual (TEM), to verify that the controllers' safety parameters meet the minimum standards. The results are summarized in **Table 2**.

All-Red Clearance Intervals

$$R = \frac{W + L}{1.47 V}$$

Where:

R: Length of red interval, sec

W: Width of the intersection, in feet, measured from the near-side stop line to the far edge of the conflicting traffic lane along the actual vehicle path

L: Length of vehicle (Use 20 ft.)

V: Speed of approaching vehicles, mph

Yellow Change Intervals

$$Y = t + \frac{1.47 V}{2(a + Gg)}$$

Where:

Y: Length of yellow interval, sec.

t: Perception-reaction time (use 1.4 sec.)

V: Speed of approaching vehicles, mph.

a: Deceleration rate in response to the onset of a yellow indication (use 10 ft. /sec²)

g: Acceleration due to gravity (use 32.2 ft. /sec²)

G: Grade, with uphill positive and downhill negative (percent grade /100); 0.0% Grade standard

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Table 2. Signal Change and Clearance Intervals

2616 – Douglas Road and Ponce de Leon Boulevard									
Current Timings									
Vehicular Movement		1	2	3	4	5	6	7	8
Function	Approach Direction	-	SBT	EBL	WBT	-	NBT	-	EBT
	Approach Posted Speed (MPH)	-	40	30	30	-	40	-	30
	All Red Distance (Feet)*	-	94	85	78	-	94	-	79
	Yellow Clearance	-	4.4	3.7	4.0	-	4.4	-	4.0
	All Red	-	2.0	2.0	2.3	-	2.0	-	2.3
Required/Recommended Timings									
Vehicular Movement		1	2	3	4	5	6	7	8
Function	Approach Direction	-	SBT	EBL	WBT	-	NBT	-	EBT
	Approach Posted Speed (MPH)	-	40	30	30	-	40	-	30
	All Red Distance (Feet)*	-	94	85	78	-	94	-	79
	Yellow Clearance	-	4.4	3.7	3.7	-	4.4	-	3.7
	All Red	-	2.0	2.4	2.2	-	2.0	-	2.2
2625 - Ponce de Leon Boulevard and SW 8 Street									
Current Timings									
Vehicular Movement		1	2	3	4	5	6	7	8
Function	Approach Direction	EBL	WBT	SBL	NBT	WBL	EBT	NBL	SBT
	Approach Posted Speed (MPH)	35	35	30	30	35	35	30	30
	All Red Distance (Feet)*	115	125	60	80	96	108	84	80
	Yellow Clearance	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	All Red	2.8	2.9	2.0	2.0	2.5	2.9	2.7	2.0
Required/Recommended Timings									
Vehicular Movement		1	2	3	4	5	6	7	8
Function	Approach Direction	EBL	WBT	SBL	NBT	WBL	EBT	NBL	SBT
	Approach Posted Speed (MPH)	35	35	30	30	35	35	30	30
	All Red Distance (Feet)*	115	125	60	80	96	108	84	80
	Yellow Clearance	4.0	4.0	3.7	3.7	4.0	4.0	3.7	3.7
	All Red	2.6	2.8	2.0	2.3	2.3	2.5	2.4	2.3

*Measured using Google Earth Pro

Less than recommended

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Table 2. Signal Change and Clearance Intervals (Continued)

4335 - Galiano Street and SW 8 Street									
Current Timings									
Vehicular Movement		1	2	3	4	5	6	7	8
Function	Approach Direction	EBL	WBT	-	NBT	WBL	EBT	-	SBT
	Approach Posted Speed (MPH)	35	35	-	30	35	35	-	30
	All Red Distance (Feet)*	64	62	-	72	60	60	-	73
	Yellow Clearance	4.0	4.0	-	4.0	4.0	4.0	-	4.0
	All Red	2.0	2.0	-	2.2	2.0	2.0	-	2.2
Required/Recommended Timings									
Vehicular Movement		1	2	3	4	5	6	7	8
Function	Approach Direction	EBL	WBT	-	NBT	WBL	EBT	-	SBT
	Approach Posted Speed (MPH)	35	35	-	30	35	35	-	30
	All Red Distance (Feet)*	64	62	-	72	60	60	-	73
	Yellow Clearance	4.0	4.0	-	3.7	4.0	4.0	-	3.7
	All Red	2.0	2.0	-	2.1	2.0	2.0	-	2.1

*Measured using Google Earth Pro

Results showed that the current All-Red Clearance Intervals met current standards with the exception of the eastbound left-turn movement at Douglas Road and Ponce de Leon Boulevard intersection, northbound and southbound through movements at the intersection of Ponce de Leon Boulevard and SW 8 Street intersection. All the Yellow Change Intervals met the minimum standards outlined by TEM.

Additionally, the pedestrian clearance intervals were reviewed for all the marked crosswalks at all signalized intersections per MUTCD Chapter 4E – Pedestrian Control Features. The results are summarized in **Table 3**.

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Table 3. Pedestrian Clearance Interval

2616 – Douglas Road and Ponce de Leon Boulevard			
Crossing	Crossing Distance* (ft)	Calculated Ped Clearance**	Existing Ped Clearance (FDW+Y+R)
North Crosswalk	57	16	20.3
South Crosswalk	70	20	20.3
East Crosswalk	66	19	24.4
West Crosswalk	73	21	24.4
2625 - Ponce de Leon Boulevard and SW 8 Street			
Crossing	Crossing Distance* (ft)	Calculated Ped Clearance**	Existing Ped Clearance (FDW+Y+R)
North Crosswalk	102	29	29.9
South Crosswalk	96	27	29.9
East Crosswalk	62	18	18
West Crosswalk	60	17	18
4335 - Galiano Street and SW 8 Street			
Crossing	Crossing Distance* (ft)	Calculated Ped Clearance**	Existing Ped Clearance (FDW+Y+R)
North Crosswalk	49	14	18
South Crosswalk	54	15	18
East Crosswalk	57	16	20.2
West Crosswalk	63	18	20.2

*Measured using Google Earth Pro

**Calculated pedestrian clearance time per MUTCD Section 4E.06 is length of crossing/walking speed of 3.5 ft/s

The results show that pedestrian clearance times at all signalized intersections meet the minimum standard calculated pedestrian clearance time. The signal timings sheets, Signal Operating Plan (SOP), Time of Day (TOD) schedule and signalization plan sketch for all signalized intersections are provided in **Appendix D**.

2.4 Land Uses

The land uses in the vicinity of the development are mostly residential to the east, west, and north of the proposed development. To the south of the development, there are multiple commercial establishments on either side of SW 8 Street, with multiple retail, medical, and office spaces.

2.5 Multimodal Facilities

A continuous sidewalk network, with curb and gutter, is present on both sides of the adjacent roadways: Ponce de Leon Boulevard, SW 8 Street, Galiano Street, Oviedo Avenue, Veragua Avenue, Avila Court, and Boabadilla Street. Crosswalks with pedestrian curb ramps, detectable warnings, countdown pedestrian signal heads are provided at all the signalized intersections. The pedestrian crossings at the signalized intersections are push-button actuated for the intersecting streets at Galiano Street with SW 8 Street intersection, and for the major street at the intersections of Ponce de Leon Boulevard with SW 8 Street (SW 8 Street), and Ponce de Leon Boulevard with Douglas Road (Douglas Road). The development site can be accessed via transit through the City of Coral Gables Trolley stops located at the northeast corner of Oviedo Avenue and Ponce de Leon Boulevard intersection, and the northwest corner of Avila Court and Ponce de Leon Boulevard intersection. Per coordination with the City of Coral Gables, it was also identified that the City is planning to add a new trolley stop location south of the property on Ponce de Leon Boulevard, close to Boabadilla Street, as part of the City's Transit Stop Improvements for Last Mile project.

The multimodal facilities are identified in **Figure 5**. City of Coral Gables Trolley map and the Miami-Dade County transit maps are provided in **Appendix E**.

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Figure 5. Multimodal Facilities Map

2.6 Planned or Programmed Transportation Projects

FDOT's Five-Year Work Program was reviewed, and no upcoming project was identified in the study area. The Miami-Dade County Long Range Transportation Plan (LRTP) was also reviewed for any multimodal improvements for the roadways in the vicinity of the project. Two (2) projects were identified along the study corridors in the 2045 LRTP: a Protected On-Road Bicycle Facility Improvement project on Ponce de Leon Boulevard between SW 8 Street and West Flagler Street, On-Road Bicycle Facility Improvement Project on Galiano Street from Ponce de Leon Boulevard to Alhambra Circle. However, both are unfunded projects. From the review of the 2050 LRTP, the following project was identified as part of the 2050 Bicycle and Pedestrian Master Plan: Protected Bike Lane on Ponce de Leon Boulevard between SW 8 Street and West Flagler Street.

The City of Coral Gables Five-Year Capital Improvement Plan, the latest available version for Fiscal Year 2023 – 2027 on the City of Coral Gables website was reviewed and the following two projects on Ponce de Leon Boulevard were identified:

- **Improvements North of SW 8 Street:** Roadway, Landscaping and Lighting improvements to the road segments within the Flagler Section (Ponce de Leon Boulevard between SW 8 Street and Flagler Street)
- **Ponce de Leon Right-of-Way Landscaping:** Design and Construction of Landscaping in the medians and right-of-way along Ponce de Leon Boulevard from SW 8 Street to Flagler Street and from Miracle Mile to US 1 (excludes Ponce Circle Park).
- **Transit Stop Improvements for Last Mile:** Based on the information provided during the introductory meeting with the City of Coral Gables, the City is planning to add a Trolley Stop to the south of the proposed development site on Ponce de Leon Boulevard, close to Boabadilla Street.

Based on the review of planned and programmed projects by Miami-Dade County and the City of Coral Gables, none are anticipated to impact the Synchro Capacity Analysis for the study intersections and roadway segments. The Miami-Dade County LRTP multimodal bicycle projects are not expected to be completed by the development's opening year (2028) and, therefore, were not included in the Multimodal Analysis for this study. However, the City of Coral Gables' planned Transit Stop installation was considered in the Multimodal Analysis.

3 FIELD REVIEWS

Field reviews were conducted on Wednesday, October 8th, 2025, during the morning (AM) peak period from 7:30 AM to 9:30 AM, and on Wednesday, October 15th, 2025, during the evening (PM) peak period from 4:30 PM to 6:00 PM. The peak period field reviews focused on assessing traffic operations at the adjacent roadway links, intersections, and existing attractors/generators in the area. The key findings from each review are summarized in this section.

3.1 Ponce de Leon Boulevard and Douglas Road

AM Peak Period

- The traffic operations at the intersection of Ponce de Leon Boulevard and Douglas Road were observed to be typical during the AM Peak Period, with the queues observed to clear within a single cycle (**Photo 1**).



Photo 1: Queues Cleared within a Single Cycle

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- Northbound queue from the adjacent intersection of Douglas Road and West Flagler Street extended up to the intersection of Douglas Road and Ponce de Leon Boulevard (**Photo 2**) during multiple cycles; however, it did not impact any traffic operations.



Photo 2: NB Queues from Douglas Road and W Flagler Street extending up to Douglas Road and Ponce de Leon Boulevard

PM Peak Period

- No significant queues were observed on the eastbound, westbound and southbound approaches of the intersection, with the existing queues observed to clear within a single cycle.
- The northbound queues on Douglas Road took more than one cycle to clear. Additionally, northbound queue spillback was observed with the traffic on Douglas Road from the adjacent intersection of West Flagler Street extending beyond the intersection of Ponce de Leon Boulevard (**Photo 3**).



Photo 3: NB Queue spillbacks at the intersection

General Observations

- Pedestrian pushbutton at the northeast corner of the Douglas Road and Ponce de Leon Boulevard intersection is loose and tilted, and the pushbutton sign is faded with “37” not legible on the street name (**Photo 4**).



Photo 4: Pushbutton tilted and Sign faded (NE corner)

- Exposed wires were observed at the mast arm upright at the northeast corner of the intersection of Douglas Road and Ponce de Leon Boulevard (**Photo 5**).



Photo 5: Exposed Wires (Upright NE Corner)

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- Standard crosswalk pavement markings at all approaches of the Douglas Road and Ponce de Leon Boulevard intersection. **(Photo 6)**.



Photo 6: Standard Crosswalk Pavement Markings

- No pedestrian signal is provided for the west-leg crosswalk at Douglas Road and Ponce de Leon Boulevard. **(Photo 7)**.

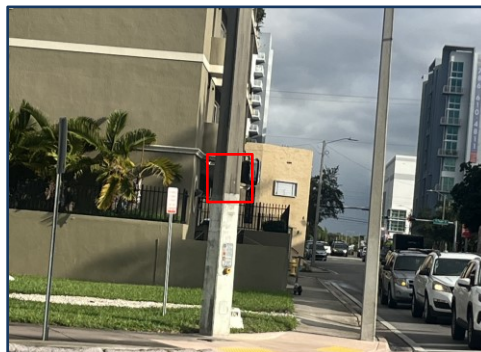


Photo 7: West Crosswalk is not controlled by pedestrian signal

- Pedestrian activity was observed at the Douglas Road and Ponce de Leon Boulevard intersection during the field review (**Photo 8**).

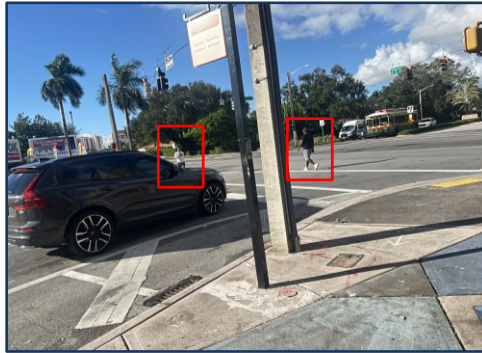


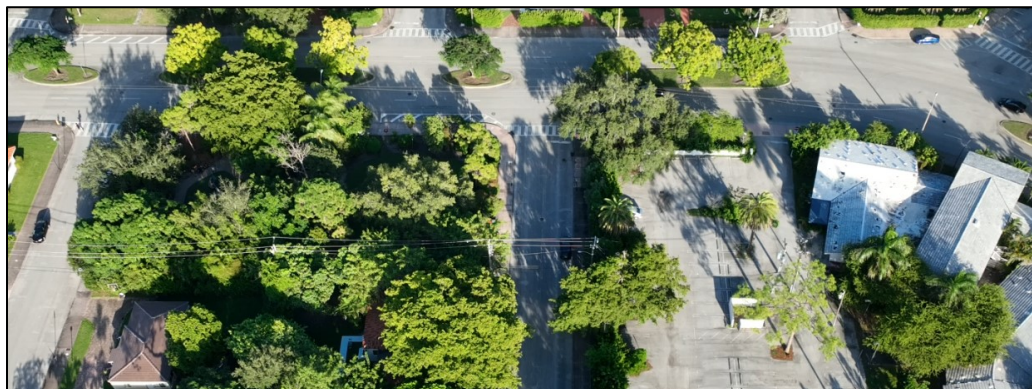
Photo 8: Pedestrian Activity at Ponce de Leon Boulevard and Douglas Road

3.2 Ponce de Leon Boulevard and Avila Court

- No queues were observed at the intersection of Ponce de Leon Boulevard and Avila Court during AM and PM Peaks (**Photo 9**).



AM Peak



PM Peak

Photo 9: No Queues at Ponce de Leon Boulevard and Avila Court

3.3 Ponce de Leon Boulevard and Veragua Avenue

- No queues were observed at the intersection of Ponce de Leon Boulevard and Veragua Avenue during AM and PM Peaks (**Photo 10**).



AM Peak



PM Peak

Photo 10: No Queues at Ponce de Leon Boulevard and Veragua Avenue

- Possible issues with the visibility of the traffic entering Ponce de Leon Boulevard from Oviedo Avenue to the vehicles on Veragua Avenue entering Ponce de Leon Boulevard due to the on-street parking on Ponce de Leon Boulevard between Oviedo Avenue and Veragua Avenue and the overgrown vegetation (**Photo 11**).



Photo 11: Possible Visibility Issues due to On-Street Parking

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3.4 Ponce de Leon Boulevard and Oviedo Avenue

- No queues were observed at the intersection of Ponce de Leon Boulevard and Oviedo Avenue during AM and PM Peaks (**Photo 12**).



AM Peak



PM Peak

Photo 12: No Queues at Ponce de Leon Boulevard and Oviedo Avenue

- Possible issues with the visibility of the northbound vehicles on Ponce de Leon Boulevard for the vehicles entering from Oviedo Avenue due to the on-street parking on Ponce de Leon Boulevard (**Photo 13**).



Photo 13: Possible Visibility Issues due to On-Street Parking

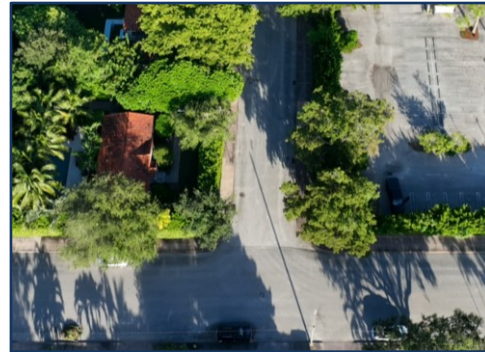
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3.5 Boabadilla Street and Avila Court

- At this intersection, the westbound approach of Avila Court is yield-controlled.
- No queues were observed at the intersection of Boabadilla Street and Avila Court during AM and PM Peaks (**Photo 14**).



AM Peak



PM Peak

Photo 14: No Queues at Boabadilla Street and Avila Court

3.6 Ponce de Leon Boulevard and Boabadilla Street

- No queues were observed at the approach of Boabadilla Street at its intersection with Ponce de Leon Boulevard during AM and PM Peaks (**Photo 15**).



AM Peak



PM Peak

Photo 15: No Queues at Boabadilla Street approach

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- Southbound queues on Ponce de Leon Boulevard at its intersection with SW 8 Street extended beyond the intersection of Ponce de Leon Boulevard and Boabadilla Street during AM Peak (**Photo 16**).



Photo 16: Queues from Ponce de Leon Boulevard and SW 8 Street extended beyond Ponce de Leon Boulevard and Boabadilla Street

- Issues with location of the on-street parking space on Boabadilla Street, it is located too close to the intersection, beyond of the stop bar (**Photo 17**).



Photo 17: Issues with Location of On-Street Parking on Boabadilla Street

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3.7 Ponce de Leon Boulevard and SW 8 Street

AM Peak Period

- Queues observed at the eastbound and northbound approaches of the intersection were observed to clear within a single cycle during most of the instances (**Photo 18**).



Eastbound Approach



Northbound Approach

Photo 18: Queues Clearing within a Single Cycle

- The queues observed at the southbound approach took more than one cycle to clear in some instances during the field review (**Photo 19**).



Photo 19: Southbound Queues Taking more than One Cycle to Clear

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- Queue spillbacks were observed for the westbound queues on SW 8 Street extending from the intersection of LeJeune Road onto the intersection of Ponce de Leon Boulevard (**Photo 20**).



Queue Spillbacks



Queues

Photo 20: Queues and Queue Spillbacks on the Westbound Approach

PM Peak Period

- The northbound queues at this intersection were observed to take more than one cycle to clear (**Photo 21**).

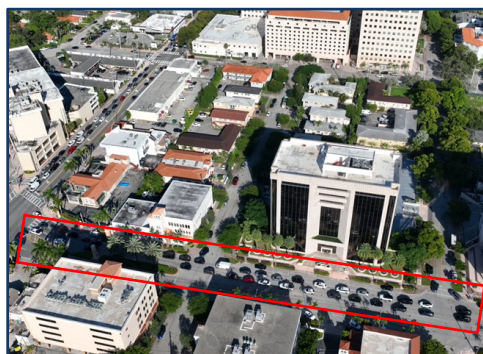


Photo 21: Queues on the Northbound Approach

- Queue spillbacks were observed for the westbound queues on SW 8 Street extending from the intersection of LeJeune Road onto the intersection of Ponce de Leon Boulevard (**Photo 22**).

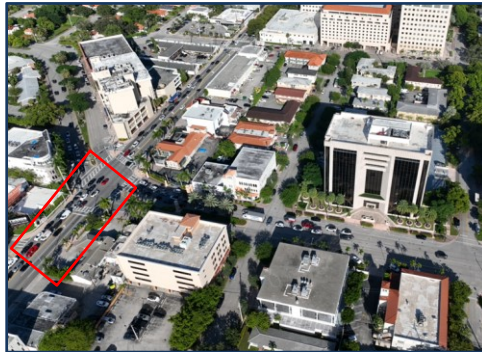


Photo 22: Westbound Queue Spillbacks

General Observations

- Orientation of the diagonal Downward Pointing Arrow plaque (W16-7P) does not point towards the crosswalk (**Photo 23**).



Photo 23: Issues with Orientation of W16-7P Plaque

- Southbound vehicles on Ponce de Leon Boulevard just south of its intersection with SW 8 Street spill backed onto the intersection (**Photo 24**).



Photo 24: Spillbacks of Southbound Vehicles

- Vehicle Parked on Ponce de Leon Boulevard, just south of its intersection with SW 8 Street to unload (**Photo 25**).



Photo 25: Vehicle Unloading while parked on Ponce de Leon Boulevard

- Pedestrian Activity was observed at the intersection during the field reviews (**Photo 26**).



Photo 26: Pedestrian Activity at Ponce de Leon Boulevard and SW 8 Street

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3.8 Galiano Street and SW 8 Street

AM Peak Period

- Queues at the eastbound, westbound, and southbound approaches of the intersection were observed to clear within a single cycle (**Photo 27**).



Eastbound Approach



Westbound Approach



Southbound Approach

Photo 27: Queues were observed to clear within a single cycle at Galiano Street and SW 8 Street

- No significant queues were observed on the northbound approach of the intersection

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PM Peak Period

- Queue spillbacks were observed for the westbound queues on SW 8 Street extending from the intersection of Ponce de Leon Boulevard onto the intersection of Galiano Street (**Photo 28**).



Photo 28: Westbound Queue Spillbacks

General Observations

- Pedestrian activity was observed at this intersection (**Photo 29**). The pedestrian signal module at the northeast corner of SW 8 Street and Galiano Street was observed to be malfunctioning, as the “Walk” indication was displayed while the “Do Not Walk (Hand)” indication was not displayed (**Photo 29**).



Photo 29: Pedestrian activity and Pedestrian Signal Module Not Properly Operational

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3.9 Study Area Observations

- Existing condition of the intersection of Ponce de Leon Boulevard with Oviedo Avenue and Veragua Avenue (**Photo 31**).



Photo 31: Ponce de Leon Boulevard at Veragua Avenue and Oviedo Avenue

- Existing access points to 760 Ponce de Leon Boulevard (**Photo 32**).



Photo 32: Existing Access Points to 760 Ponce de Leon Boulevard

- Based on field observations, the proposed development's access point may have restricted visibility of southbound traffic for vehicles exiting the access (see **Photo 33**). During field review, vehicles appeared to be traveling above the posted speed limit.



Photo 33: Possible sight distance issues at the proposed access point to 760 Ponce de Leon

- Southbound queue on Ponce de Leon Boulevard from its intersection with SW 8 Street extended beyond the proposed access point during couple of cycles of the AM peak hour (**Photo 34**).



Photo 34: Southbound queue on Ponce de Leon Boulevard
(extending beyond the proposed access point)

- Posted pedestrian warning (W11-2) sign at the existing south access point of the development (**Photo 35**). Multiple pedestrians were observed making midblock crossings at this location.



Photo 35: Posted pedestrian warning (W11-2) sign

- Ponce de Leon Boulevard is abutted with wide sidewalk on both sides (**Photo 36**).



Photo 36: Sidewalk on Ponce de Leon Boulevard

- The “SW 8 Street Next Signal” sign at the median of Ponce de Leon Boulevard south of Oviedo Avenue is missing (**Photo 37**).



Existing



Google Maps (2019)

Photo 37: Missing “SW 8 Street Next Signal” sign

- At the median openings on Ponce de Leon Boulevard between Avila Court and Fonseca Avenue, the northbound Left-Turns and U -Turns onto residential side streets are restricted on weekdays (Monday to Friday) between 4:00 PM – 7:00 PM (**Photo 38**).



Photo 38: Restricted Left and U-Turns between 4:00 PM – 7:00 PM

- Posted R3-18 sign with a plaque (MON-FRI, 4PM – 7PM) for the northbound vehicles at Fonseca Avenue and Ponce de Leon Boulevard intersection is not applicable with the west leg of Fonseca Avenue, being a one-way outbound street (**Photo 39**).



Photo 39: R3-18 sign not applicable

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- Illegal On-Street Parking was observed on the hatched-out area on Ponce de Leon Boulevard between Oviedo Avenue and Veragua Avenue (**Photo 40**).



Photo 40: Illegal Parking at the hatched-out area

- Vehicle parked in an on-street parking spot at the Trolley Stop on Oviedo Avenue, which potentially forces the trolley to stop on the roadway, blocking traffic on Oviedo Avenue (**Photo 41**).



Photo 41: Vehicles Parking at the Trolley Stop on Oviedo Avenue

- Vehicles waiting to enter 747 Ponce de Leon Boulevard with the parking lot being full, were observed blocking the northbound lanes of Ponce de Leon Boulevard (**Photo 42**).



Photo 42: Vehicles blocking northbound lanes on Ponce de Leon Boulevard

4 EXISTING CONDITIONS ANALYSIS

Synchro and SimTraffic 11 softwares were used to perform the traffic analysis in this study. Analysis of existing traffic conditions was performed for the AM and PM peak hours on the roadway segments adjacent to the proposed development and the study intersections. The following sections document the results of the Corridor Arterial Capacity Analysis and the Intersection LOS Analysis. **Appendix F** contains the Synchro and SimTraffic 11 output sheets for the corridor arterial and intersection capacity analyses.

4.1 Corridor Arterial Capacity Analysis

The corridor arterial capacity analysis was performed for the adjacent roadways of the proposed development. A total of 10 simulations were run via SimTraffic 11. The analyzed parameters were delay (in seconds), travel time (in seconds), and 95th percentile queues (in feet). **Table 4** presents the results of the analysis per adjacent roadway segment for the AM and PM peak periods.

The queuing SimTraffic reports list 95th percentile queue lengths and available storage. These results were analyzed for the three-roadway segments adjacent to the proposed development: Avila Court, Ponce de Leon Boulevard, and Boabadilla Street. The southbound queues observed on these segments were primarily due to the queues extending from the adjacent signalized intersection of Ponce de Leon Boulevard and SW 8 Street. The 95th percentile southbound queue from Ponce de Leon Boulevard and SW 8 Street extends beyond its intersection with Boabadilla Street.

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Table 4. Existing Arterial Capacity Analysis - AM and PM Peak Hours

Segment	Direction	AM Peak			PM Peak		
		Delay (sec)	Travel Time (sec)	95 th % Queues* (ft)	Delay (sec)	Travel Time (sec)	95 th % Queues* (ft)
Avila Court b/w Ponce de Leon Blvd and Boabadilla Street	EB	22.9	29.3	20.0	17.8	30.0	26.0
	WB	1.4	23.9	0.0	1.1	11.9	19.0
Ponce de Leon Blvd b/w Veragua Avenue and Avila Court	NB	0.2	4.5	36.0	0.7	2.4	59.0 ²
	SB	1.1	5.3	60.0 ¹	0.4	4.5	19.0
Boabadilla Street b/w Ponce de Leon Blvd and Avila Court	NB	0.4	15.3	0.0	7.8	23.9	0.0
	SB	49.8	66.0	17.0	20.2	31.2	24.0
Ponce de Leon Blvd b/w Boabadilla Street and Oviedo Avenue	NB	1.0	10.3	38.0	0.7	2.4	139.0 ²
	SB	8.1	16.7	125.0 ¹	3.0	11.6	77.0 ¹

* Maximum Queue at the approach

¹ Queues extending from the nearest signalized intersection (Ponce de Leon Boulevard and SW 8 Street)² Queues with vehicles waiting to make Left/U-Turns

4.2 Intersection Level of Service Analysis

The intersection LOS was determined using Synchro 11 (HCM) for the AM and PM peak periods for the study intersections. The adopted maximum LOS for intersections and roadways is LOS E. Signalized intersection LOS is stated in terms of average control delay per vehicle (in seconds) during a specified time period (e.g., weekday AM peak hour). LOS is measured based on many variables, including signal cycle length and traffic volumes with respect to intersection capacity and resulting queues. Unsignalized intersection LOS is evaluated by intersection type: all-way stop, or two-way stop or yield control of minor street approaches.

Capacity analysis was performed for all the intersections considered. Certain phasing and lane configuration/intersection geometry are not recognized by HCM 6 analysis methodologies; therefore, analyses were performed under HCM 2000 for all intersections. **Table 5** presents the results of the existing conditions analysis for the weekday AM and PM peak hour periods.

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Table 5. Existing Intersection LOS Analysis - AM and PM Peak Hours

Intersection		Approach	Movement	Existing					
				AM Peak			PM Peak		
				sec/ veh	LOS	V/C Ratio*	sec/ veh	LOS	V/C Ratio*
1	Ponce de Leon Blvd and Douglas Road (S)	Northbound	Through/Left/Right	10.2	B	0.34	19.2	B	0.4
		Southbound	Through/Left/Right	12.2	B	0.49	20.8	C	0.48
		Eastbound	Left	67.6	E	0.52	66.5	E	0.95
			Through/Right	64.9	E	0.23	32.3	C	0.43
		Westbound	Left	77.1	E	0.47	249	F	1.14
			Through/Right	84.4	F	0.74	74.2	E	0.55
Intersection			26.4	C	0.53	37.7	D	0.67	
2	Ponce de Leon Blvd and Avila Court (U)	Northbound		1.1	A	0.04	1.1	A	0.08
		Southbound		0	A	0.26	0	A	0.15
		Eastbound		14.8	B	0.02	15.8	C	0.08
3	Ponce de Leon Blvd and Veragua Avenue (U)	Northbound		0	A	0.12	0	A	0.3
		Southbound		0	A	0	0.1	A	0
		Westbound		12	B	0.08	13.3	B	0.22
4	Ponce de Leon Blvd and Oviedo Avenue (U)	Northbound		0	A	0.11	0	A	0.25
		Southbound		1.5	A	0.09	0.7	A	0.03
		Westbound		11.6	B	0.11	11.6	B	0.27
5	Boabadilla Street and Avila Court (U)	Northbound		0	A	0.01	0	A	0.04
		Southbound		0.9	A	0	1.2	A	0
		Westbound		8.6	A	0.03	8.8	A	0.07
6	Ponce de Leon Blvd and Boabadilla Street (U)	Northbound		0	A	0.09	0	A	0.19
		Southbound		0	A	0.23	0	A	0.15
		Eastbound**		10.4	B	0.02	9.7	A	0.03
7	Ponce de Leon Blvd and SW 8 Street (S)	Northbound	Left	149	F	1.02	124	F	0.96
			Through/Right	60.9	E	0.38	78.9	E	0.85
		Southbound	Left	74.2	E	0.21	60.7	E	0.37
			Through/Right	104	F	0.9	72.2	E	0.66
		Eastbound	Left	16.3	B	0.35	14.7	B	0.35
			Through/Right	28.9	C	0.67	24.5	C	0.58
		Westbound	Left	37.4	D	0.67	12.3	B	0.32
			Through/Right	20.9	C	0.51	12.9	B	0.43
		Intersection			46.4	D	0.8	41.3	D
8	SW 8 Street and Galiano Street (S)	Northbound	Left	80.1	F	0.41	56.2	E	0.29
			Through/Right	85.3	F	0.6	99.2	F	0.95
		Southbound	Left	271	F	1.15	61.4	E	0.29
			Through	94.6	F	0.53	56.5	E	0.07
			Right	183	F	0.02	52.1	D	0.01
		Eastbound	Left	1.8	A	0.05	4.7	A	0.04
			Through/Right	2.9	A	0.49	6.2	A	0.54
		Westbound	Left	5.9	A	0.53	12.9	B	0.24
			Through/Right	5.9	A	0.4	16	B	0.42
		Intersection			19.3	B	0.6	26.5	C

*Maximum V/C ratio at approach; ² HCM 2000 reported values as HCM 6 does not support intersection geometry and/or phasing.

Red = exceeds threshold and/or capacity;

U = Unsignalized, S = Signalized

** Synchro model reflects southbound approach of Boabadilla Street as eastbound

As shown in **Table 5**, most of the intersections operate at a LOS E or better. Intersections/Approaches operating at LOS F during existing conditions include:

- **Ponce de Leon Boulevard and Douglas Road (Signalized):**
 - WB Left-Turn: PM
 - WB Through/Right-Turn: AM
- **Ponce de Leon Boulevard and SW 8 Street (Signalized):**
 - NB Left-Turn: AM & PM
 - SB Through/Right-Turn: AM
- **SW 8 Street and Galiano Street (Signalized):**
 - NB Left-Turn: AM
 - NB Through/Right-Turn: AM & PM
 - SB Left-Turn: AM
 - SB Through: AM
 - SB Right-Turn: AM

5 FUTURE TRAFFIC PROJECTIONS

The purpose of this analysis is to isolate the impacts of the traffic associated with the project from traffic due to population growth, proposed roadway improvements, and upcoming developments in the area. The following sections describe the process used to determine future traffic and roadway conditions in the study area.

5.1 Background Traffic

Background traffic for this study was developed by applying a yearly growth rate to the seasonally adjusted 2025 traffic counts to estimate the background traffic for the year 2028, which is the year the project is expected to be completed.

The growth rate calculations were based on historical traffic counts (up to 2024) obtained from the FDOT Florida Traffic Online count stations in the vicinity of the study area. The data corresponding to 2020 and 2021 was not considered for the analysis due to the volumes being impacted by COVID 19. The following FDOT count stations were referenced for this analysis:

- Count Station No 878150, located on Ponce de Leon Boulevard, 200' S of SR 90/US-41/SW 8 Street/Tamiami Trail

- Count Station No 878151, located on Ponce de Leon Boulevard, 200' W of SW 37 Avenue/Douglas Road
- Count Station No 875117, located on SR 90/US-41/SW 8 Street/Tamiami Trail, 300' E of Galiano Street
- Count Station No 878265, located on SW 37 Avenue/Douglas Road, 200' S of SW 8 Street

The FDOT Traffic Trend Analysis tool was used to determine the historical growth rate in the area, following the Project Traffic Forecasting Handbook guidelines. This growth rate was applied to the 2025 traffic counts to estimate the future background traffic volumes within the study area. Since negative annual growth rates were determined for each analysis, a one-half percent annual growth rate was used to estimate the growth factor. A summary of the analysis is provided in **Table 6**. The historical growth rate data with historical traffic counts are provided in **Appendix G**.

Table 6. Growth Rate Analysis Summary

Station	3-Year Historical (2022 - 2024)	8-Year Historical (2017-2024)	10-Year Historical (2015 - 2024)	Calculated Growth Rate	Recommended Annual Growth Rate	Recommended Growth Factor
878151	4.79%	-1.06%	-14.04%	-1.02%	0.5%	1.02
878150	3.55%	-3.27%	-6.40%			
875117	-3.36%	-0.70%	-0.36%			
878265	5.29%	0.24%	3.05%			
Average	2.57%	-1.20%	-4.44%			

5.2 Committed Developments

Per Coordination with the City of Coral Gables, two committed developments were identified within the study area: The Regency at the Park, and 211 Santillane. Review of the corresponding development approval documents indicated that 211 Santillane generated less than 50 trips on the project roadways and was exempted from a traffic study (refer to **Appendix H**). Therefore, the trips generated by this development were not included in the estimation of future traffic volumes in this study.

Table 7 summarizes the net external trips generated by the Regency at the Park development during the AM and PM peak hours. The trip distribution information for this development is provided in **Appendix H**. Trip distribution data was used to estimate the 2028 No-Build Traffic volumes in this study.

Table 7. The Regency at the Park Trip Generation

Proposed ITE Land Use Designation ¹	Size/Units	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
		In	Out	Total	In	Out	Total
Multifamily Housing (High-rise) (Land Use 222)	161 DU	14	44	58	38	25	63
		$T = 0.28X + 12.86$			$T = 0.34X + 8.56$		
		24%In		76%Out	61% In		39% Out
Small Office (Land Use 712)	5,600 SF	9	2	11	4	10	14
		$Rate = \frac{1.92 \text{ trips}}{1000 \text{ SF}}$			$Rate = \frac{2.45 \text{ trips}}{1000 \text{ SF}}$		
		83%		17%	32% In		68%Out
Subtotal Gross Trips		23	46	69	42	35	77
Internal Capture ²	0% (AM) 2.6% (PM)	0	0	0	-1	-1	-2
Transit/ Pedestrian Trips	6.0 %	-1	-3	-4	-2	-2	-4
Net External Trips (Proposed)		22	43	65	39	32	71

¹ Based on ITE Trip Generation Manual, 10th Edition,² Based on ITE Trip Generation Manual User's Guide and Handbook, 10th Edition

Source: Trip generation from the Traffic Impact Analysis Report for "The Regency at the Park" development

Figure 6 illustrates the future without project traffic volumes for the AM and PM peak hours.

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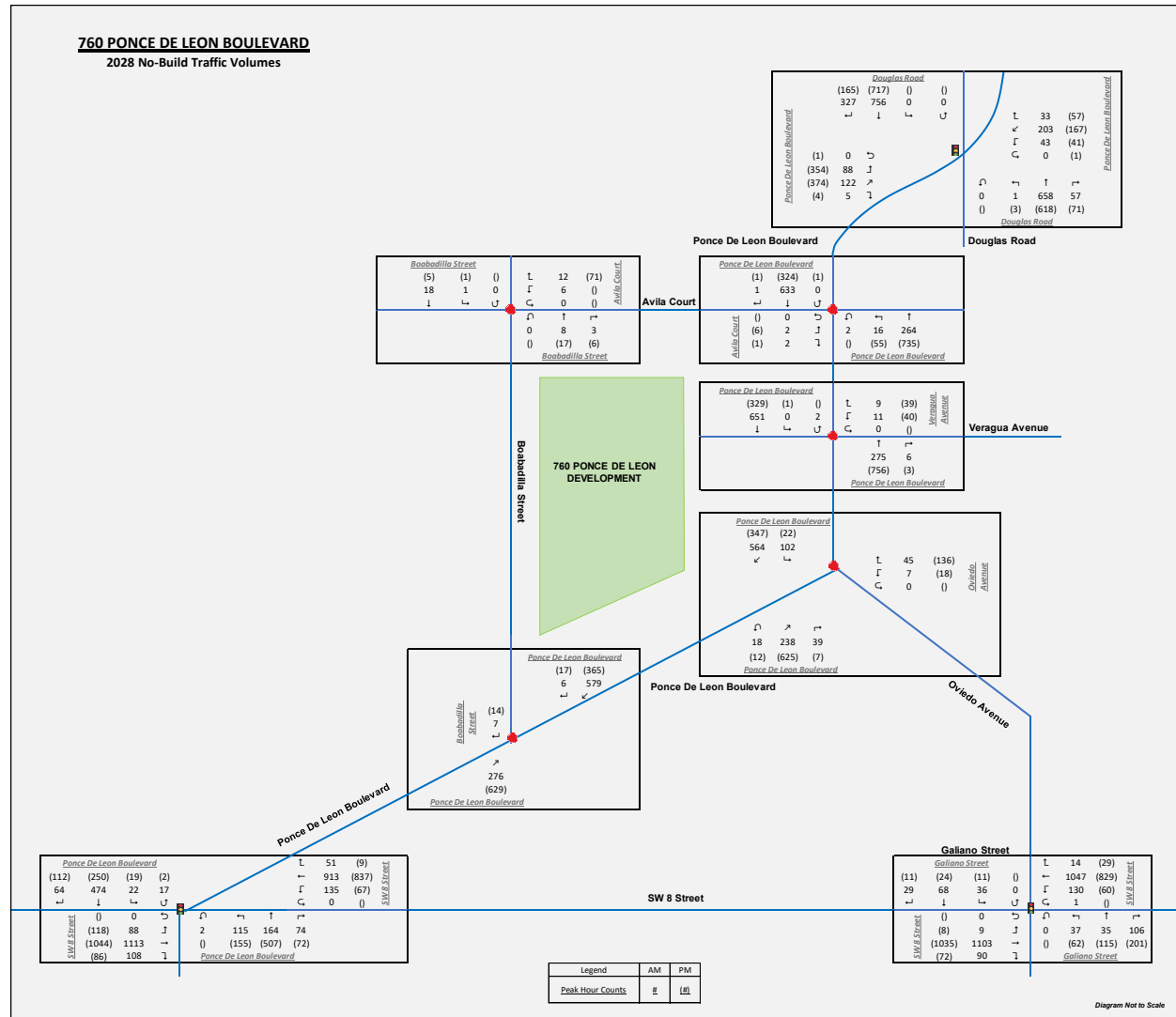


Figure 6. 2028 No-Build Traffic Volumes (AM and PM Peaks)

6 FUTURE ANALYSIS WITHOUT PROJECT (W/O PROJECT)

Tables 8 and 9 summarize the results of the corridor arterial capacity analysis and the intersection capacity analysis for future without project (No-build) conditions for the AM and PM peak hours. **Appendix I** contains the Synchro and SimTraffic output sheets. In the No-Build condition it was observed that the AM Peak southbound queue from the intersection of Ponce de Leon Boulevard and SW 8 Street extends beyond the existing development south driveway but does not extend beyond the proposed development access point.

Table 8. 2028 No-Build Corridor Arterial Capacity Analysis - AM and PM Peak Hours

Segment	Direction	AM Peak			PM Peak		
		Delay (sec)	Travel Time (sec)	95 th % Queues* (ft)	Delay (sec)	Travel Time (sec)	95 th % Queues* (ft)
Avila Court b/w Ponce de Leon Blvd and Boabadilla Street	EB	20.1	32.7	15.0	29.3	40.5	35.0
	WB	2.0	12.4	11.0	0.9	13.2	0.0
Ponce de Leon Blvd b/w Veragua Avenue and Avila Court	NB	0.9	5.1	77.0 ²	0.8	5.1	85.0 ²
	SB	1.1	5.3	53.0	0.5	4.7	20.0
Boabadilla Street b/w Ponce de Leon Blvd and Avila Court	NB	0.0	11.3	11.0	5.6	21.3	0.0
	SB	1.9	5.7	7.0	18.5	31.5	21.0
Ponce de Leon Blvd b/w Boabadilla Street and Oviedo Avenue	NB	1.4	10.6	47.0 ²	2.2	11.6	56.0 ²
	SB	24.8	33.5	272.0 ^{1 3}	1.9	10.5	59.0 ¹

* Maximum Queue at the approach

¹ Queues extending from the nearest signalized intersection (Ponce de Leon Boulevard and SW 8 Street)² Queues with vehicles waiting to make Left/U-Turns³ 95th percentile queue blocks the existing development south driveway*This space is intentionally left blank*

Table 9. 2028 No-Build Intersection LOS Analysis – AM and PM Peak Hours

Intersection		Approach	Movement	No-Build 2028					
				AM Peak			PM Peak		
				sec/veh	LOS	V/C Ratio*	sec/veh	LOS	V/C Ratio*
1	Ponce de Leon Blvd and Douglas Road (S)	Northbound	Through/Left/Right	10.5	B	0.35	19.4	B	0.41
		Southbound	Through/Left/Right	12.6	B	0.51	21	C	0.49
		Eastbound	Left	67.7	E	0.53	74.8	E	0.98
			Through/Right	64.4	E	0.23	33	C	0.44
		Westbound	Left	76.7	E	0.46	244	F	1.13
			Through/Right	84.3	F	0.74	73.1	E	0.53
		Intersection			26.6	C	0.54	38.9	D
2	Ponce de Leon Blvd and Avila Court (U)	Northbound		1.1	A	0.04	1.1	A	0.08
		Southbound		0	A	0.27	0	A	0.15
		Eastbound		15	B	0.02	16	C	0.08
3	Ponce de Leon Blvd and Veragua Avenue (U)	Northbound		0	A	0.12	0	A	0.31
		Southbound		0	A	0	0.1	A	0
		Westbound		12.1	B	0.08	13.6	B	0.23
4	Ponce de Leon Blvd and Oviedo Avenue (U)	Northbound		0	A	0.11	0	A	0.25
		Southbound		1.5	A	0.09	0.7	A	0.03
		Westbound		11.7	B	0.11	11.7	B	0.28
5	Boabadilla Street and Avila Court (U)	Northbound		0	A	0.01	0	A	0.04
		Southbound		0.9	A	0	1.2	A	0
		Westbound		8.6	A	0.03	8.8	A	0.07
6	Ponce de Leon Blvd and Boabadilla Street (U)	Northbound		0	A	0.09	0	A	0.19
		Southbound		0	A	0.24	0	A	0.16
		Eastbound**		10.5	B	0.02	9.7	A	0.03
7	Ponce de Leon Blvd and SW 8 Street (S)	Northbound	Left	193	F	1.16	147	F	1.04
			Through/Right	60.9	E	0.39	79.6	E	0.86
		Southbound	Left	74.1	E	0.21	60.8	E	0.38
			Through/Right	106	F	0.91	72.3	E	0.67
		Eastbound	Left	16.7	B	0.36	15.1	B	0.37
			Through/Right	29.8	C	0.69	25.3	C	0.6
		Westbound	Left	45.5	D	0.71	13.3	B	0.34
			Through/Right	21.2	C	0.52	13	B	0.44
		Intersection			49.4	D	0.86	43.1	D
8	SW 8 Street and Galiano Street (S)	Northbound	Left	79.5	E	0.43	55.2	E	0.29
			Through/Right	88.5	F	0.65	102	F	0.96
		Southbound	Left	335	F	1.31	61.4	E	0.31
			Through	93.7	F	0.52	55.6	E	0.07
			Right	181	F	0.03	51	D	0.01
		Eastbound	Left	1.8	A	0.05	4.8	A	0.04
			Through/Right	3.1	A	0.5	6.6	A	0.56
		Westbound	Left	7.3	A	0.57	14.2	B	0.3
			Through/Right	6.3	A	0.41	16.8	B	0.43
		Intersection			21.2	C	0.65	27.6	C

*Maximum V/C ratio at approach; ² HCM 2000 reported values as HCM 6 does not support intersection geometry and/or phasing.

Red = exceeds threshold and/or capacity;

U = Unsignalized, S = Signalized

** Synchro model reflects southbound approach of Boabadilla Street as eastbound

As shown in **Table 9**, performance at study intersections under the 2028 No-Build conditions was generally comparable to the Existing conditions, with only slight increases in delay. Intersections/Movements operating at LOS F during 2028 No-Build conditions include:

- **Ponce de Leon Boulevard and Douglas Road (Signalized):**
 - WB Left-Turn: PM
 - WB Through/Right-Turn: AM
- **Ponce de Leon Boulevard and SW 8 Street (Signalized):**
 - NB Left-Turn: AM & PM
 - SB Through/Right-Turn: AM
- **SW 8 Street and Galiano Street (Signalized):**
 - NB Through/Right-Turn: AM & PM
 - SB Left-Turn: AM
 - SB Through: AM
 - SB Right-Turn: AM

7 PROJECT TRAFFIC

7.1 Trip Generation

Trip generation for this study was based on the approved Trip Generation Analysis letter submitted by the Applicant to the City of Coral Gables provided in **Appendix J**. The methodology outlined in the ITE Trip Generation Report 11th Edition was used for the trip generation analysis. The following ITE Land Use Codes (LUC) were used for the estimation of trip generation: LUC 720 (Medical-Dental Office Building), LUC 822 (Strip Retail Plaza), and LUC 220 (Multifamily Housing [Low-Rise]). Additionally, it should be noted that in the approved trip generation analysis letter, a 5% increase to the medical office and retail SF, and an additional townhouse were assumed to account for any future refinements and have a conservative estimate of the trip generation. Given the mixed use nature of the proposed development, based on the criteria outlined in the ITE Manual pass-by trip reduction (PM Peak hour pass-by average rate of 40% was applied based on guidelines for LUC 821, since ITE does not provide pass by data for LUC 822) and an internal capture trip reduction (5.6% during AM Peak, 2.2% during PM Peak, and 5.1% for daily trip generation is applied). Additionally, with the adjacent land-use being multimodal friendly with pedestrian and transit infrastructure, a multimodal reduction factor of 7.5% has been applied. **Table 10** summarizes the trip generation analysis. Based on this analysis, the project is

expected to result in 191 net new weekday AM Peak trips, 356 net new weekday PM Peak trips, and 3769 net new weekday daily trips.

Table 10: Trip Generation

Future Land Use (ITE Code)	Scale	Net New External Trips*	Entering Trips*	Exiting Trips*
<i>Existing Development</i>				
Medical-Dental Office Building (720)	17,245 square feet	46 (62) <586>	37 (19) <293>	9 (43) <293>
<i>Proposed Redevelopment</i>				
Medical-Dental Office Building (720)	101,610 square feet	219 (375) <3,829>	176 (113) <1,922>	43 (262) <1,907>
Strip Retail Plaza (822)	10,410 square feet	16 (41) <502>	10 (20) <244>	6 (21) <258>
Multifamily Housing (Low Rise) (220)	5 dwelling unit	2 (2) <24>	0 (1) <11>	2 (1) <13>
<i>Net New Vehicle Trips</i>				
Net New Vehicle Trips		191 (356) <3,769>	149 (115) <1,884>	42 (241) <1,885>

*A.M. Peak Hour (P.M. Peak Hour) <Daily>

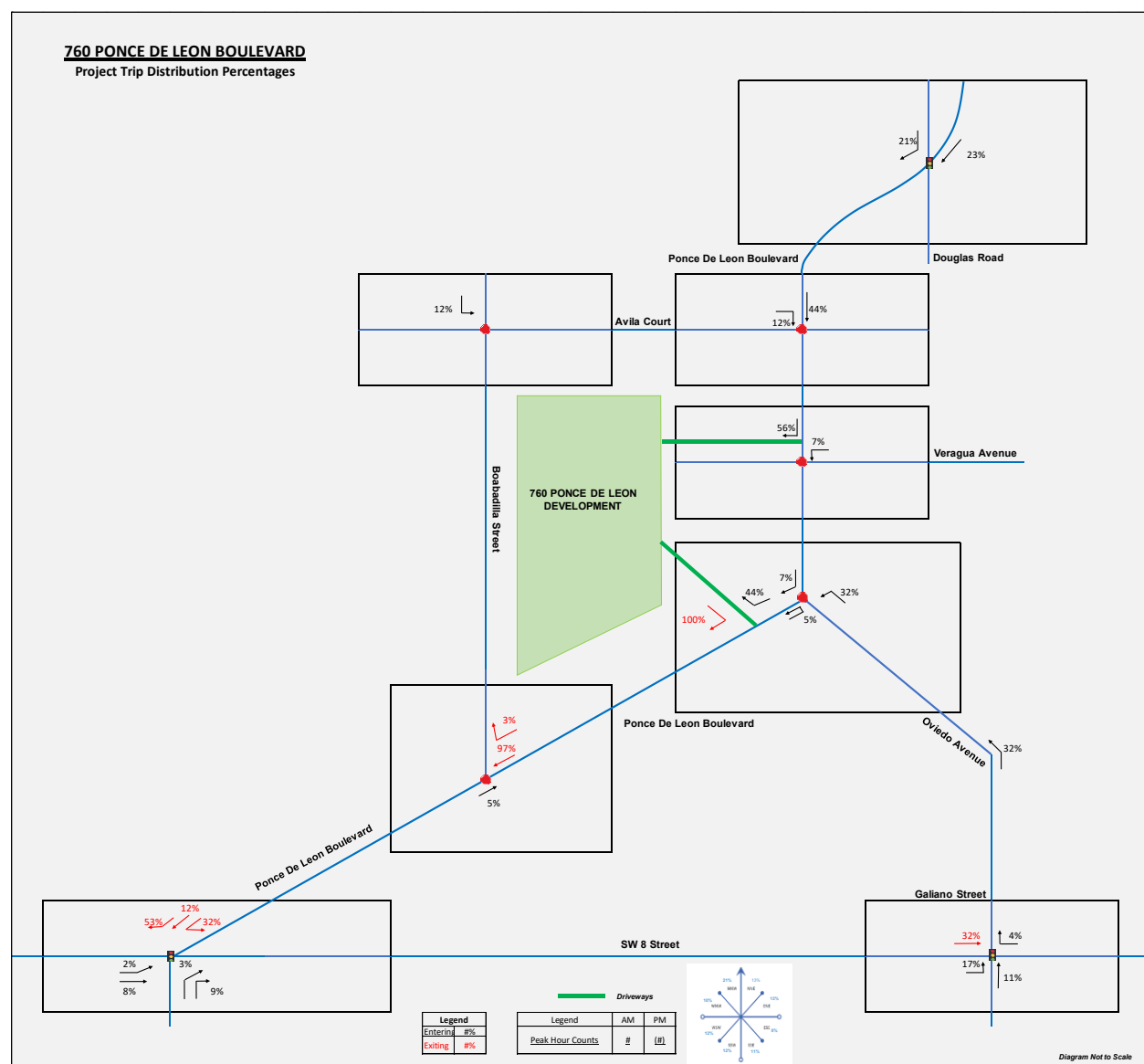
Source: Trip Generation Analysis Letter Submitted by Applicant to the City of Coral Gables

7.2 Trip Distribution and Assignment

Trip distribution was based on the cardinal trip distribution percentages for the project site's traffic analysis zone (TAZ) 791-obtained from the Miami-Dade County TAZ boundaries map provided in **Appendix K**. The cardinal distribution percentages are presented in **Table 11**. Roadways available to travel to the desired location, connectivity, attractiveness, and convenience of traveling on a specific roadway were factors considered when determining the project trip distribution. Additionally, the proposed access point locations and their corresponding allowable ingress and egress movements were considered when determining the distribution of entering and exiting trips. **Figures 7** and **8** show the proposed trip distribution and traffic assignment on the roadway network for the proposed development. The distribution data is provided in **Appendix K**.

Table 11. Cardinal Distributions for TAZ 791

County TAZ 791 (Regional TAZ 3691)			
Direction	2015	2045	2028
NNE	13.9%	13.3%	13.6%
ENE	13.5%	13.7%	13.6%
ESE	8.0%	8.2%	8.1%
SSE	11.3%	9.7%	10.6%
SSW	12.2%	10.6%	11.5%
WSW	10.9%	12.6%	11.6%
WNW	10.0%	9.8%	9.9%
NNW	20.1%	22.3%	21.1%

**Figure 7. Project Traffic Distribution**

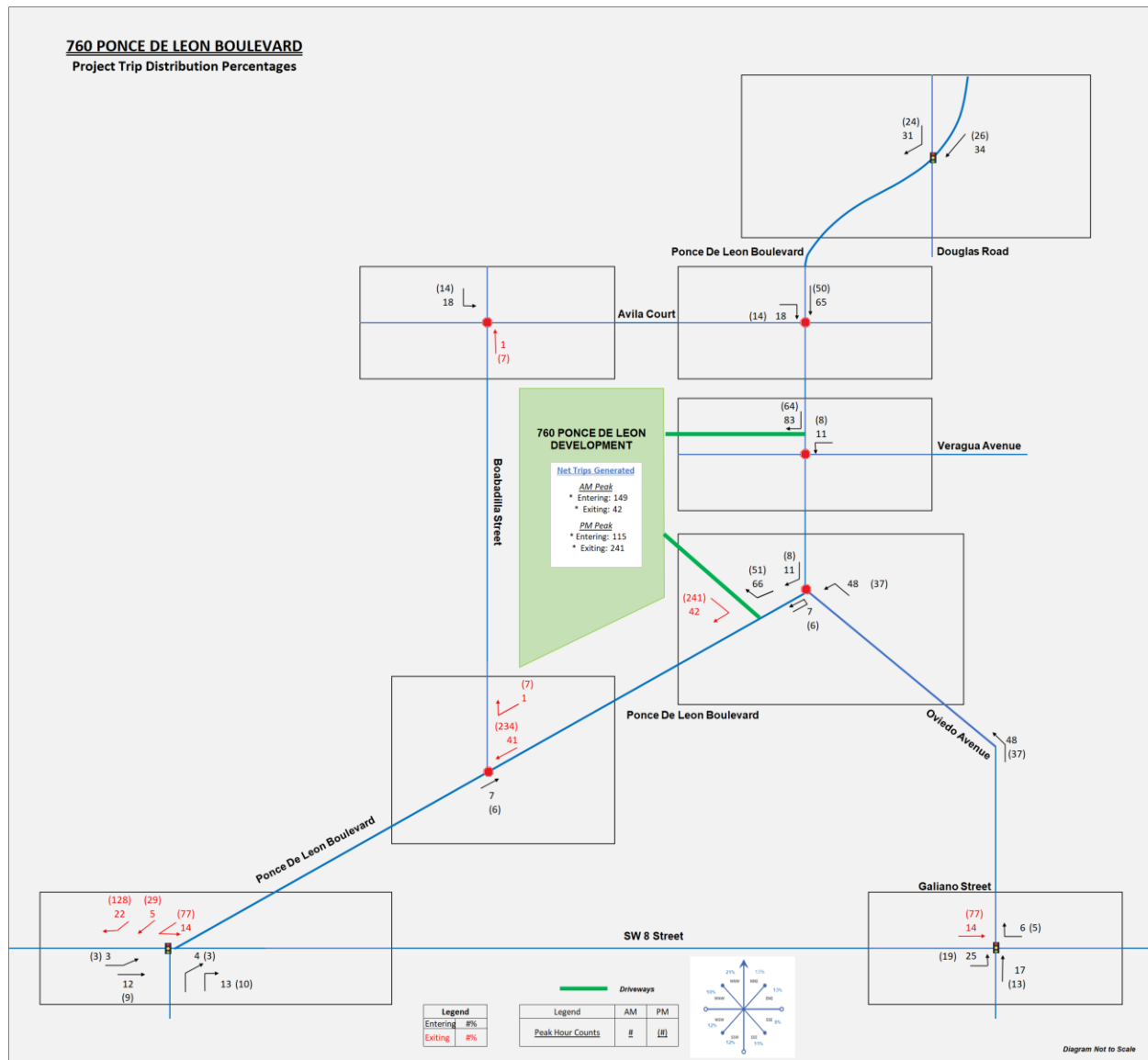


Figure 8. Project Traffic Assignment

8 FUTURE ANALYSIS WITH PROJECT (W/PROJECT)

In the Future with project traffic scenario, the build alternatives evaluated in this study are listed below:

1. Future W/Project – 760 Ponce de Leon Boulevard
2. Future W/Project (Mitigation Measures)

A. **Scenario 1:**

- i. Signal Timing Changes

- Figure 9** illustrates the future with project analysis traffic volumes for the AM and PM peak hours.



8.1 Future W/Project Traffic – 760 Ponce de Leon Boulevard

Tables 12 and 13 summarize the results of corridor arterial capacity analysis and intersection capacity analysis for the AM and PM peak hours, respectively. **Appendix L** contains the Synchro and SimTraffic output sheets. In the Build condition, the 95th percentile southbound queue from SW 8 Street and Ponce de Leon Boulevard extends beyond the existing development south driveway during AM and PM Peaks.

Table 12. Future W/Project Corridor Arterial Capacity Analysis - AM and PM Peak Hours

Segment	Direction	AM Peak			PM Peak		
		Delay (sec)	Travel Time (sec)	95 th % Queues* (ft)	Delay (sec)	Travel Time (sec)	95 th % Queues* (ft)
Avila Court b/w Ponce de Leon Blvd and Boabadilla Street	EB	0.0	0.0	36.0	17.6	28.4	42.0
	WB	1.5	13.0	0.0	1.0	11.5	10.0
Ponce de Leon Blvd b/w Veragua Avenue and Avila Court	NB	0.1	2.7	20.0	0.6	3.3	99.0 ²
	SB	0.7	2.1	62.0	0.3	1.7	11.0
Boabadilla Street b/w Ponce de Leon Blvd and Avila Court	NB	0.1	16.9	0.0	5.1	21.0	0.0
	SB	30.1	46.7	13.0	110.9	123.5	35.0
Ponce de Leon Blvd b/w Boabadilla Street and Oviedo Avenue	NB	0.8	3.1	54.0 ²	1.9	4.3	98.0 ²
	SB	11.4	17.8	169.0 ^{1 3}	17.3	23.7	286.0 ^{1 3}

* Maximum Queue at the approach

¹ Queues extending from the nearest signalized intersection (Ponce de Leon Boulevard and SW 8 Street)

² Queues with vehicles waiting to make Left/U-Turns

³ 95th percentile queue blocks the existing development south driveway

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Table 13. Future W/Project Intersection Capacity Analysis - AM and PM Peak Hours

Intersection		Approach	Movement	Build 2028					
				AM Peak			PM Peak		
				sec/veh	LOS	V/C Ratio*	sec/veh	LOS	V/C Ratio*
1	Ponce de Leon Blvd and Douglas Road (S)	Northbound	Through/Left/Right	11.2	B	0.36	19.4	B	0.41
		Southbound	Through/Left/Right	13.7	B	0.53	21.3	C	0.51
		Eastbound	Left	59.9	E	0.55	113	F	1.02
			Through/Right	56.5	E	0.22	48	D	0.44
		Westbound	Left	74.6	E	0.43	228	F	1.09
			Through/Right	85.5	F	0.78	74.4	E	0.6
		Intersection			27.4	C	0.57	46.2	D
2	Ponce de Leon Blvd and Avila Court (U)	Northbound		1.1	A	0.04	1.2	A	0.08
		Southbound		0	A	0.3	0	A	0.17
		Eastbound		12.4	B	0.08	13.2	B	0.16
3	Ponce de Leon Blvd and Veragua Avenue (U)	Northbound		0	A	0.12	0	A	0.31
		Southbound		0	A	0	0.1	A	0
		Westbound		13.5	B	0.13	14.4	B	0.26
4	Ponce de Leon Blvd and Oviedo Avenue (U)	Northbound		0	A	0.11	0	A	0.25
		Southbound		1.5	A	0.09	0.7	A	0.03
		Westbound		21.5	C	0.41	16.2	C	0.47
5	Boabadilla Street and Avila Court (U)	Northbound		0	A	0.02	0	A	0.05
		Southbound		5.5	A	0.05	5.7	A	0.04
		Westbound		8.9	A	0.04	8.9	A	0.07
6	Ponce de Leon Blvd and Boabadilla Street (U)	Northbound		0	A	0.1	0	A	0.19
		Southbound		0	A	0.26	0	A	0.26
		Eastbound**		10.7	B	0.02	10.8	B	0.03
7	Ponce de Leon Blvd and SW 8 Street (S)	Northbound	Left	213	F	1.21	328	F	1.5
			Through/Right	62.7	E	0.43	84.4	F	0.9
		Southbound	Left	57.5	E	0.3	337	F	1.51
			Through/Right	107	F	0.99	85.2	F	0.88
		Eastbound	Left	16.5	B	0.37	15.6	B	0.39
			Through/Right	29.6	C	0.7	26.1	C	0.61
		Westbound	Left	54	D	0.72	13.9	B	0.35
			Through/Right	18.6	B	0.52	12.1	B	0.45
		Intersection			50.4	D	0.87	68.4	E
8	SW 8 Street and Galiano Street (S)	Northbound	Left	74.9	E	0.34	54.1	D	0.28
			Through/Right	96	F	0.77	106	F	0.98
		Southbound	Left	212	F	1	61.2	E	0.33
			Through	89.7	F	0.42	54.2	D	0.07
			Right	181	F	0.03	50.1	D	0.01
		Eastbound	Left	2.4	A	0.18	8.7	A	0.12
			Through/Right	4	A	0.52	12.2	B	0.61
		Westbound	Left	9.5	A	0.6	16.2	B	0.33
			Through/Right	8.7	A	0.44	19.1	B	0.45
		Intersection			20.7	C	0.66	30.9	C

*Maximum V/C ratio at approach; ² HCM 2000 reported values as HCM 6 does not support intersection geometry and/or phasing.

Red = exceeds threshold and/or capacity;

U = Unsignalized, S = Signalized

** Synchro model reflects southbound approach of Boabadilla Street as eastbound

As shown in **Table 13**, the performance at study intersections under the 2028 Build conditions was generally comparable to the Existing and No-Build conditions. The additional movements that resulted in failure includes the eastbound left-turn at the intersection of Ponce de Leon Boulevard and Douglas Road, the northbound Through/Right-Turn, and the southbound Left-turn during PM Peak. The summary of movements with LOS F is as follows:

- **Ponce de Leon Boulevard and Douglas Road (Signalized):**
 - WB Left-Turn: PM
 - WB Through/Right-Turn: AM
 - EB Left-Turn: PM
- **Ponce de Leon Boulevard and SW 8 Street (Signalized):**
 - NB Left-Turn: AM & PM
 - NB Through/Right-Turn: PM
 - SB Left-Turn: PM
 - SB Through/Right-Turn: AM and PM
- **SW 8 Street and Galiano Street (Signalized):**
 - NB Through/Right-Turn: AM & PM
 - SB Left-Turn: AM
 - SB Through: AM
 - SB Right-Turn: AM

8.2 Future W/Project (With Proposed Mitigation Measures)

8.2.1 Scenario 1

Synchro analysis performed in this study indicated that LOS of the following movements deteriorated to LOS F during the 2028 Build condition:

- ***EB Left-Turn*** at the intersection of ***Ponce de Leon Boulevard and Douglas Road*** during PM Peak.
- ***NB Through/Right-Turn*** and ***SB Left-Turn*** at the intersection of ***Ponce de Leon Boulevard and SW 8 Street*** during PM Peak.

Signal timing adjustments at these intersections were evaluated as a potential mitigation to improve the performance of these movements. The overall cycle length was kept constant to ensure the coordination of main streets with the adjacent signalized intersections. Based on the field observations, the queue spills back on main streets at these intersections, resulting in lost green time. Therefore, the splits were adjusted to allocate more green time to failing movements.

Additionally, existing configuration at the intersection of Ponce de Leon Boulevard with Veragua Avenue and Oviedo Avenue could cause safety concerns with the allowed left-turns from Veragua Avenue and Oviedo Avenue from a single median opening on Ponce de Leon Boulevard. With the added project traffic and proximity of the development driveways to this intersection, additional traffic is expected to make left turns in the Build Condition. Therefore, the following changes are recommended at this intersection:

- Restrict the left-turn at the Veragua Avenue approach to Ponce de Leon Boulevard intersection:
 - Install Right-Only (R3-5R) sign and pavement markings
 - Provide channelization at the Veragua Avenue approach to physically allow only right-turns
- Remove the northbound U-Turn restriction during the PM Peak hours at the intersection of Ponce de Leon Boulevard and Avila Court:
 - Remove the existing No U-turn or Left-Turn (R3-18) sign and the supplemental plaque (MON-FRI 4:00 PM – 7:00 PM).

The left-turn traffic on Veragua Avenue was re-routed to make U-Turn at Avila Court in the Synchro model. The corresponding intersection capacity analysis for the AM and PM Peaks are summarized in **Table 14. Appendix M** provides the Synchro output sheets.

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Table 14. Future W/Project (Mitigation Scenario 1) Intersection Capacity Analysis
AM and PM Peak Hours

Intersection		Approach	Movement	Build+Mitigation (Scenario 1)					
				AM Peak			PM Peak		
				sec/ veh	LOS	V/C Ratio*	sec/ veh	LOS	V/C Ratio*
1	Ponce de Leon Blvd and Douglas Road (S)	Northbound	Through/Left/Right	11.5	B	0.36	21	C	0.42
		Southbound	Through/Left/Right	14	B	0.53	23.1	C	0.52
		Eastbound	Left	58.8	E	0.54	88.4	F	0.94
			Through/Right	56	E	0.21	45.7	D	0.41
		Westbound	Left	74	E	0.42	272.3	F	1.2
			Through/Right	83.7	F	0.77	76.9	E	0.64
Intersection			27.4	C	0.57	44.8	D	0.71	
2	Ponce de Leon Blvd and Avila Court (U)	Northbound		1.1	A	0.04	1.2	A	0.08
		Southbound		0	A	0.3	0	A	0.17
		Eastbound		12.4	B	0.08	13.4	B	0.16
3	Ponce de Leon Blvd and Veragua Avenue (U)	Northbound		0	A	0.12	0	A	0.31
		Southbound		0	A	0	0.1	A	0
		Westbound		9.7	A	0.1	9.7	A	0.18
4	Ponce de Leon Blvd and Oviedo Avenue (U)	Northbound		0	A	0.11	0	A	0.25
		Southbound		1.5	A	0.09	0.7	A	0.03
		Westbound		21.3	C	0.4	16.2	C	0.47
5	Boabadilla Street and Avila Court (U)	Northbound		0	A	0.02	0	A	0.05
		Southbound		5.5	A	0.05	5.7	A	0.04
		Westbound		8.9	A	0.04	8.9	A	0.07
6	Ponce de Leon Blvd and Boabadilla Street (U)	Northbound		0	A	0.1	0	A	0.19
		Southbound		0	A	0.26	0	A	0.26
		Eastbound**		10.7	B	0.02	10.8	B	0.03
7	Ponce de Leon Blvd and SW 8 Street (S)	Northbound	Left	69.6	E	0.8	67.6	E	0.81
			Through/Right	55.1	E	0.35	74.1	E	0.82
		Southbound	Left	52.2	D	0.23	81.8	F	0.85
			Through/Right	79	E	0.87	85.6	F	0.88
		Eastbound	Left	22.8	C	0.42	20.9	C	0.44
			Through/Right	43.6	D	0.81	34.6	C	0.68
		Westbound	Left	40.4	D	0.71	22.8	C	0.42
			Through/Right	26	C	0.58	19.1	B	0.5
Intersection			46.2	D	0.83	48.3	D	0.74	
8	SW 8 Street and Galiano Street (S)	Northbound	Left	74.9	E	0.34	54.1	D	0.28
			Through/Right	96	F	0.77	105.7	F	0.98
		Southbound	Left	212	F	1	62.9	E	0.33
			Through	88.3	F	0.42	56.1	E	0.07
			Right	164.6	F	0.03	50.1	D	0.01
		Eastbound	Left	2.6	A	0.18	7.9	A	0.12
			Through/Right	3.8	A	0.52	10.7	B	0.61
		Westbound	Left	9.5	A	0.6	16.2	B	0.33
			Through/Right	8.7	A	0.44	19.1	B	0.45
Intersection			20.4	C	0.66	30.3	C	0.7	

*Maximum V/C ratio at approach; ² HCM 2000 reported values as HCM 6 does not support intersection geometry and/or phasing.

Red = exceeds threshold and/or capacity;

U = Unsignalized, S = Signalized

** Synchro model reflects southbound approach of Boabadilla Street as eastbound

The results indicated improved overall operational conditions of the intersection, with reduced delay and/or improved LOS at the signalized intersections of Ponce De Leon Boulevard with SW 8 Street and Douglas Road. At the intersection of Ponce de Leon Boulevard and SW 8 Street, the NB Through/Right-Turn LOS during PM Peak improved from F to E, and for the southbound Through and Left-turn, though the LOS remained at F, the delay significantly reduced. Additionally, operational improvements were also observed on certain movements that are failing in Existing/No-Build conditions. For the NB Left-Turn during AM and PM Peak, and Southbound Through/Right-Turn during AM Peak, the LOS improved from F to E. At the intersection of Ponce de Leon Boulevard and Douglas Road, the LOS of EB Left-Turn remained at LOS F, but the delay was reduced. It should be noted that the delays on Ponce de Leon Boulevard are also attributed to the long cycle lengths with the major street (Douglas Road and SW 8 Street) having longer green time. Increasing capacity by extending the turn bay length or adding an exclusive right-turn lane to improve the SB performance at the intersection of Ponce de Leon Boulevard and SW 8 Street would require relocation of the existing utilities, modifying the landscaped median by cutting down the trees, and ensuring proper alignment of the through lanes of both approaches of Ponce de Leon Boulevard. Therefore, no additional mitigation measures were analyzed at the intersection of Ponce de Leon Boulevard and SW 8 Street.

8.2.2 Scenario 2

In this mitigation scenario, in addition to the measures analyzed in Scenario 1 an increased capacity of left-turn bay at the eastbound approach of the intersection of Ponce de Leon Boulevard and Douglas Road was analyzed. The turn bay capacity was extended from the existing 110 feet including the taper, to 350 feet. The corresponding intersection capacity analysis for the AM and PM Peaks are summarized in **Table 15. Appendix M** provides the Synchro output sheets. Based on the results of the analysis, this did not significantly improve the performance with similar delays and LOS observed. Additionally, it should be noted that this would require relocation of the City of Coral Gables Sign at the median of the eastbound approach.

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Table 15. Future W/Project (Mitigation Scenario 2) Intersection Capacity Analysis
AM and PM Peak Hours

Intersection		Approach	Movement	Build+Mitigation (Scenario 2)					
				AM Peak			PM Peak		
				sec/veh	LOS	V/C Ratio	sec/veh	LOS	V/C Ratio
1	Ponce de Leon Blvd and Douglas Road (S)	Northbound	Through/Left/Right	11.5	B	0.36	21	C	0.42
		Southbound	Through/Left/Right	14	B	0.53	23.1	C	0.52
		Eastbound	Left	58.8	E	0.54	88.4	F	0.94
			Through/Right	56	E	0.21	45.7	D	0.41
		Westbound	Left	74	E	0.42	272.3	F	1.2
			Through/Right	83.7	F	0.77	76.9	E	0.64
Intersection			27.4	C	0.57	44.8	D	0.71	
2	Ponce de Leon Blvd and Avila Court (U)	Northbound		1.1	A	0.04	1.2	A	0.08
		Southbound		0	A	0.3	0	A	0.17
		Eastbound		12.4	B	0.08	13.4	B	0.16
3	Ponce de Leon Blvd and Veragua Avenue (U)	Northbound		0	A	0.12	0	A	0.31
		Southbound		0	A	0	0.1	A	0
		Westbound		9.7	A	0.1	9.7	A	0.18
4	Ponce de Leon Blvd and Oviedo Avenue (U)	Northbound		0	A	0.11	0	A	0.25
		Southbound		1.5	A	0.09	0.7	A	0.03
		Westbound		21.3	C	0.4	16.2	C	0.47
5	Boabadilla Street and Avila Court (U)	Northbound		0	A	0.02	0	A	0.05
		Southbound		5.5	A	0.05	5.7	A	0.04
		Westbound		8.9	A	0.04	8.9	A	0.07
6	Ponce de Leon Blvd and Boabadilla Street (U)	Northbound		0	A	0.1	0	A	0.19
		Southbound		0	A	0.26	0	A	0.26
		Eastbound**		10.7	B	0.02	10.8	B	0.03
7	Ponce de Leon Blvd and SW 8 Street (S)	Northbound	Left	69.6	E	0.8	67.6	E	0.81
			Through/Right	55.1	E	0.35	74.1	E	0.82
		Southbound	Left	52.2	D	0.23	81.8	F	0.85
			Through/Right	79	E	0.87	85.6	F	0.88
		Eastbound	Left	22.8	C	0.42	20.9	C	0.44
			Through/Right	43.6	D	0.81	34.6	C	0.68
		Westbound	Left	40.4	D	0.71	22.8	C	0.42
			Through/Right	26	C	0.58	19.1	B	0.5
Intersection			46.2	D	0.83	48.3	D	0.74	
8	SW 8 Street and Galiano Street (S)	Northbound	Left	74.9	E	0.34	54.1	D	0.28
			Through/Right	96	F	0.77	105.7	F	0.98
		Southbound	Left	209.2	F	1	62.7	E	0.33
			Through	82.6	F	0.42	56.1	E	0.07
			Right	122.3	F	0.03	50.1	D	0.01
		Eastbound	Left	2.6	A	0.18	7.9	A	0.12
			Through/Right	3.8	A	0.52	10.7	B	0.61
		Westbound	Left	9.5	A	0.6	16.2	B	0.33
			Through/Right	8.7	A	0.44	19.1	B	0.45
Intersection			19.6	B	0.66	30.3	C	0.7	

*Maximum V/C ratio at approach; ² HCM 2000 reported values as HCM 6 does not support intersection geometry and/or phasing.

Red = exceeds threshold and/or capacity;

U = Unsignalized, S = Signalized

** Synchro model reflects southbound approach of Boabadilla Street as eastbound

9 MULTIMODAL ANALYSIS

Multimodal LOS analysis was conducted in this study to evaluate quality of service for the different modes of travel: pedestrian, bicycle, and transit. Criteria outlined in the 2023 FDOT Multimodal Quality Level of Service Handbook was used to evaluate the pedestrian and bicycle level of service. This is based on the HCM methodologies of Level of Traffic Streets (LTS). The FDOT handbook provides LTS flow charts to determine the bicycle and pedestrian LTS based on the physical characteristics of the roadway, pedestrian and bicycle features. Bicycle and Pedestrian LTS are the weakest link analyses, i.e., they are calculated separately for each side of the road, and the highest score (i.e. lower quality of service) is assigned to the roadway segment. The transit level of service was estimated based on the guidelines outlined in the Transit Capacity and Quality of Service Manual (TCQSM), third edition. The following scenarios were evaluated in this study:

- **Scenario 1**: 2025 existing conditions
- **Scenario 2**: 2028 No-build conditions:
 - This included the proposed City of Coral Gables Trolley stop on Ponce de Leon Boulevard close to Boabadilla Street.
- **Scenario 3**: 2028 Build Conditions

9.1 Pedestrian LTS

Pedestrian quality of service is primarily influenced by measurable factors such as delay and facility characteristics. Delays often occur at signalized intersections or from out-of-direction travel caused by inadequate facilities. Key facility attributes affecting service quality include sidewalk width and continuity, pavement condition, grade, separation from traffic lanes, physical barriers, traffic volumes (including heavy vehicles), number of lanes, lighting, shade, and network connectivity. Less quantifiable factors, such as safety, security, and the built environment, also influence pedestrian experience. The FDOT Multimodal LOS Handbook evaluates pedestrian quality of service based on users' perceptions and selected facility characteristics for walking along roadways. According to the Handbook, the Pedestrian Level of Traffic Stress (PLTS) designates the quality of service into four categories:

- *PLTS 1: The level suitable for all users including teenagers traveling alone, the elderly, and people using a wheeled mobility device. People feel safe and comfortable on the pedestrian facility and all users are willing to use the pedestrian facility.*

- *PLTS 2: The level where all users are able to use the facility and most users are willing to use the facility.*
- *PLTS 3: The level where some users are willing to use this facility, but others may only use the facility when there are limited route and mode choices available.*
- *PLTS 4: The facility is difficult or impassible by a wheeled mobility device or users with other limitations in their movement and most likely used by users with limited route and mode choice.*

The facility attributes that were considered in evaluating PLTS in the FDOT Handbook include:

- *Existence of a sidewalk*
- *Sidewalk continuity*
- *Sidewalk width*
- *Posted speed*
- *Lateral separation of pedestrians from vehicular travel lanes*
- *Presence of vertical separation*

The PLTS calculated based on the LTS flow charts of FDOT Multimodal Quality Level of Service Handbook (provided in **Appendix N**) for the roadways adjacent to the development site are provided in **Table 16** below. The PLTS is expected to remain same for the three scenarios analyzed with no anticipated changes in the pedestrian facilities within the development opening year (2028) and the PLTS not being impacted by the vehicular traffic volumes.

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Table 16. Pedestrian LTS

Segment	Direction	Continuous Sidewalk	Posted Speed	Horizontal Separation	Vertical Separation	Directional PLTS	Overall PLTS*
Ponce de Leon Boulevard	NB	Yes	30	Yes	No	2	2
	SB	Yes	30	Yes	No	2	
Boabadilla Street	NB	Yes	25	Yes	No	1	1
	SB	Yes	25	Yes	No	1	
Avila Court	EB	Yes	25	Yes	No	1	1
	WB	Yes	25	Yes	No	1	
SW 8 Street	EB	Yes	35	No	No	3	3
	WB	Yes	35	No	No	3	
Douglas Road	NB	Yes	40	No	No	4	4
	SB	Yes	40	No	No	4	

* Scenarios 1,2, and 3 analyzed result in the same PLTS with no anticipated planned pedestrian facilities improvements

9.2 Bicycle LTS

Similar to pedestrian travel, the bicycle quality of service is affected by both delay and facility characteristics. Delays may result from intersection control or out-of-direction travel due to inadequate connectivity. Facility attributes influencing bicyclist comfort include the type of facility (shared or exclusive lane), width, pavement condition, grade, separation from vehicular lanes, traffic volumes (including heavy vehicles), number of lanes, lighting, and network connectivity. The FDOT Multimodal LOS Handbook evaluates bicycle quality of service based on selected facility attributes. According to the Handbook, the Bicycle Level of Traffic Stress (BLTS) designates the quality of service into four categories:

- *BLTS 1: The level that most children can use confidently*
- *BLTS 2: The level that will be tolerated by most adults*
- *BLTS 3: The level tolerated by confident cyclists who still prefer having their own dedicated space for riding*
- *BLTS 4: The level tolerated only by those with limited route or mode choice or cycling enthusiasts that choose to ride under stressful conditions*

The facility attributes that were considered in evaluating BLTS in the FDOT Handbook include:

- *Bicycle facility type*
- *Bicycle facility width*
- *Posted speed*
- *Separation from traffic*
- *AADT*

The BLTS calculated based on the LTS flow charts of FDOT Multimodal Quality Level of Service Handbook (provided in **Appendix N**) for the roadways adjacent to the development site are provided in **Table 17** below. The roadway segments adjacent to the development site did not have any bicycle facilities; therefore, the corresponding flow chart was used in the BLTS analysis. BLTS is expected to remain same for the three scenarios analyzed with no anticipated changes in the bicycle facilities within the development opening year (2028), and the BLTS not being impacted by the vehicular traffic volumes.

Table 17. Bicycle LTS

Segment	Direction	Posted Speed	Total Travel Lanes (<3)	Land Use	AADT < 3000	Directional BLTS	Overall BLTS*
Ponce de Leon Blvd	NB	30**	4	Residential and Commercial	N/A	4	4
	SB	30**	4	Residential and Commercial	N/A	4	
Boabadilla Street	NB	25	2	Residential and Commercial	N/A	3	3
	SB	25	2	Residential and Commercial	N/A	3	
Avila Court	EB	25	2	Residential	N/A	2	3
	WB	25	2	Residential and Commercial	N/A	3	
SW 8 Street	EB	35	4	Commercial	No	4	4
	WB	35	4	Commercial	No	4	
Douglas Road	NB	40	4	Residential and Commercial	No	4	4
	SB	40	4	Residential and Commercial	No	4	

* Scenarios 1,2, and 3 analyzed result in the same BLTS with no anticipated planned bicycle facilities improvements

** Speed Limit at the Curve between Campina Court and Marabella Avenue is 25 MPH

9.3 Transit LOS

Transit quality of service is impacted by the travel times in comparison to vehicular travel time, service times, accessibility, service frequency, reliability, directness of route, amenities at the transit stops, and connection to sidewalks and bicycle facilities. Additionally, since walking and cycling are usually the first or last-mile travel modes for a transit trip, the quality of the walking and cycling experience at the beginning or end also impacts the overall transit trip experience. Two main recognized methods for evaluating Transit Quality of service include the methodology developed in NCHRP Report 616 (adopted in Highway Capacity Manual, 2010), and the TCQSM methodology.

The TCQSM measures are based on surveys that identify transit service factors important to travelers' perceptions and consider factors such as service frequency, hours of service, service coverage, transit travel times versus vehicular travel times, passenger loading, and reliability. The FDOT Multimodal Quality of Service Manual provides an excerpt of the Urban Scheduled Transit Service based on the Service Frequency in Section 2.2 of the Manual (provided in **Appendix N**). Among the 5 street segments analyzed in this study, City of Coral Gables Trolley operates on Ponce de Leon Boulevard, and Miami-Dade County Metrobus runs on SW 8 Street and Douglas Road. No Transit service is operational on the segments of Boabadilla Street and Avila Court. However, based on the guidelines provided in TCQSM, the transit stops of local services within 0.25 miles from either end of the segment analyzed could be considered to serve the segment. Therefore, the transit services on Ponce de Leon Boulevard could be considered to serve these segments of Boabadilla Street and Avila Court. The Transit Service based on the Service Frequency for the roadway segments analyzed in this study are provided in **Table 18**.

Table 18. Transit LOS (Service Frequency)

Segment	Headway (minutes)	Service Frequency (vehicles/hour)	Transit LOS *
Ponce de Leon Blvd	10-15	4-6	B
SW 8 Street	15-30	2-4	D
Douglas Road	15-30	2-4	D

* Scenarios 1,2, and 3 analyzed result in the same Transit LOS with no anticipated changes in the Transit Service Schedules

The HCM methodology, also outlined in the “Multimodal Level of Service” section of Chapter 5 in TCQSM is based on the following components:

- *Access to Transit (based on the pedestrian link LOS)*
- *Frequency of Transit*
- *Perceived Travel Time Rate (bus travel speed, bus stop amenities, excess wait time due to bus arrival times compared to the scheduled time, and on-board crowding)*

It includes the estimation of two parameters a Transit Wait-Ride Score (s_{w-r} , which is a performance measure that compares the attractiveness of the transit service being evaluated to a baseline transit service that operates once an hour at an average travel speed of 10 – 15 mph), and a Pedestrian Environment Score (I_p , that evaluates the quality of pedestrian facilities in the vicinity of the transit stop). In evaluating Transit LOS score based on this methodology, certain assumptions were made to estimate the input parameters based on the available transit service data. The excerpt of this methodology and the calculation of these scores is detailed in **Appendix N**. The Transit LOS scores obtained from this methodology for the study segments are shown in **Table 19**.

Table 19. Transit LOS

Segment	Transit Wait-Ride Score	Pedestrian Environment Score	Transit LOS score	Transit LOS *
Ponce de Leon Blvd	1.86	1.53	3.44	C
SW 8 Street	1.46	2.35	4.16	D
Douglas Road	1.51	2.09	4.05	D

* Scenarios 1,2, and 3 analyzed result in the same Transit LOS with no anticipated changes in the Transit Service Schedule or the pedestrian facilities

Therefore, the Transit LOS results calculated based on the two methods resulted in the same LOS for segments of SW 8 Street and Douglas Road. The LOS results on Ponce de Leon were similar with the LOS being slightly lower for the overall Transit LOS calculated using the HCM methodology.

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10 CONCLUSIONS

The purpose of this study was to conduct a Traffic Impact Analysis for the proposed development at 760 Ponce de Leon Boulevard in the City of Coral Gables, Florida. The proposed redevelopment consists of approximately 96,770 SF of medical office space, 9,910 SF of commercial/retail space, and four (4) town homes. Vehicular access to the site is provided on Ponce de Leon Boulevard via two access points, one ingress-only right-in access point north of Veragua Avenue, and one ingress/egress right-in right-out access point south of Oviedo Avenue. The proposed redevelopment is expected to be completed in 2028.

The existing conditions volume collected at the study intersections were adjusted for seasonal adjustments using the Peak Seasonal Factor obtained from Florida Traffic Online. A growth projection was performed to estimate the future without (No-Build) project traffic volumes. Committed developments in the vicinity of the proposed development (The Regency at the Park, and 211 Santillane) were considered in estimating the No-Build volumes.

The trip generation estimates (based on the ITE Trip Generation Manual, 11th edition) from the approved methodology letter obtained from the developer were considered in the Study. The following Land-Use codes (LUC) were used for the estimation of trip generation: LUC 720 (Medical-Dental Office Building), LUC 822 (Strip Retail Plaza), and LUC 220 (Multimodal Housing [Low Rise]). Trip reduction was applied for the internal capture, and pass-by trips based on the ITE Manual, and a multimodal trip reduction factor was also applied due to the adjacent land-use with pedestrian and transit facilities. Trip distribution for the project trips was performed based on the cardinal trip distribution from MDC 2045 LRTP, for the TAZ 791 and the observed travel patterns based on the location of the site and surrounding roadway network.

Corridor Arterial capacity analysis and intersection capacity analysis were performed for existing, 2028 No-Build (Future Without Project Traffic), and 2028 Build (Future With Project Traffic) conditions. Synchro 11 and SimTraffic 11 were used to analyze the LOS, queues and delays at the intersections and the roadway links. Corridor Arterial capacity analysis indicated no significant delays and queues on the three roadways analyzed adjacent to the proposed development. The queues observed on Ponce de Leon Boulevard were primarily due to the southbound queues from the adjacent signal of Ponce de Leon Boulevard and SW 8 Street. The intersection LOS analysis indicated that LOS of EB left-turn at Ponce de Leon Boulevard during the PM Peak, and

NB through/right-turn and SB left-turn at the intersection of Ponce de Leon Boulevard during the PM Peak deteriorated to LOS F during the 2028 Build condition. Additionally, with the existing configuration at the intersection of Ponce de Leon Boulevard and Veragua Avenue and Oviedo Avenue potentially causing safety concerns with added traffic in the Build scenario and the proximity of the development driveways.

Two mitigation scenarios were analyzed: (1) Signal Timing Optimization at Ponce de Leon Boulevard and Douglas Road, and Ponce de Leon Boulevard and SW 8 Street, and a change in access at Veragua Avenue approach to restrict left-turns and make it as a right-only approach; (2) Along with the mitigations in scenario 1, an extension of turn-bay capacity for the eastbound left-turn at the intersection of Ponce de Leon Boulevard and Douglas Road from existing 110 feet including taper to 350 feet was analyzed. Scenarios 1 and 2 resulted in similar LOS and delay results. At Ponce de Leon Boulevard & SW 8 Street, the NB Through/Right-Turn LOS improved from F to E during the PM peak, and the SB Through/Left-Turn movements saw reduced delay despite remaining at LOS F. Additional improvements were observed for NB Left-Turn (AM/PM) and SB Through/Right-Turn (AM), both improving from F to E. At Ponce de Leon Boulevard & Douglas Road, the EB Left-Turn LOS remained at F but with reduced delay. Therefore, Scenario 1 is recommended in this study to improve the traffic operational performance with the added project traffic during 2028 Build conditions.

Multimodal Analysis was performed in this study to analyze the Pedestrian, Bicycle, and Transit level of service based on the FDOT Multimodal Level of Service guidelines and Transit Capacity and Quality of Service Manual (TCQSM). The level of service is expected to remain constant throughout the Existing, No-Build, and Build conditions, with no expected improvements in the pedestrian, bicycle facilities, and the addition of a transit stop on Ponce de Leon Boulevard not impact the Transit LOS score. With a wide sidewalk and lower travel speeds, the PLTS on Boabadilla Street and Avila Court was 1. On Ponce de Leon Boulevard and SW 8 Street, the PLTS were 2 and 3, respectively. On Douglas Road, with higher operating speeds and narrower sidewalks, the PLTS was 4. It should be noted that significant pedestrian activity was observed along the study area in the vicinity of the development during the field reviews. BLTS ranged from 3 to 4 for all the segments due to lack of dedicated bicycle facilities. Transit LOS analysis indicated that the LOS of SW 8 Street and Douglas Road was D. For Ponce de Leon Boulevard, the LOS was B (based on service frequency) and LOS C based on wait-ride score and pedestrian environment score.

11 RECOMMENDATIONS

The following recommendations were made in this study based on the capacity analysis performed and the field observations made. The recommendations include:

Ponce de Leon Boulevard and Veragua Avenue:

- Restrict the left-turn at Veragua Avenue approach to Ponce de Leon Boulevard
 - Install Right-Only (R3-5R) sign and pavement markings
 - Provide intersection improvements along Ponce de Leon Boulevard to restrict Left-Turn movements from Veragua Avenue.
- Remove the northbound U-Turn restriction during PM Peak hours at the intersection of Ponce de Leon Boulevard and Avila Court:
 - Remove the existing No U-turn or Left-Turn (R3-18) sign and the supplemental plaque (MON-FRI 4:00 PM – 7:00 PM).
 - Additionally, illegal northbound Left-Turn movements were observed under existing conditions during the PM peak hour. The existing and projected (No-Build and Build) left-turn and U-turn volumes meet the FDOT Multimodal Access Management Handbook criteria for the installation of an exclusive left-turn lane. The raised 18-foot median along Ponce de Leon Boulevard provides sufficient width to accommodate the exclusive turn lane; however, implementation would require median reconstruction and relocation of existing impacted trees.

Boabadilla Street and Avila Court:

- Avila Court is currently yield-controlled at its intersection with Boabadilla Street. Evaluate this intersection for either stop control on the Avila Court approach or an all-way (three-way) stop, if warranted.

General:

- Evaluate sight distance at the development's proposed ingress/egress driveway with the curve on Ponce just north of the driveway.
- Conduct a ball bank indicator test to determine the appropriate advisory speed at the curve located on Ponce de Leon Boulevard between Boabadilla Street and Avila Court. Provide Turn Warning (W1-1) and Advisory Speed (W13-1P) signs for northbound and southbound traffic of the curve.

- Under existing conditions, there is notable pedestrian activity across Ponce de Leon Boulevard. Additionally, with the proposed trolley stop on Ponce de Leon Boulevard and Boabadilla Street, additional pedestrian crossings are anticipated. Therefore, a midblock pedestrian crossing evaluation is recommended to determine whether a crossing is warranted and, if so, the appropriate level of traffic control.
- On-Street Parking:
 - Under existing conditions, the on-street parking spaces on the west side of Boabadilla Street (northwest corner of the intersection of Ponce de Leon Boulevard and Boabadilla Street) are not adequately delineated, with parking spaces provided beyond the stop bar of the intersection. Remove the substandard parking spaces at this location.
 - Remove the existing sub-standard on-street parking spaces at the trolley stop on Oviedo Avenue to ensure adequate space for the trolley to stop without blocking the lanes on Oviedo Avenue and to ensure ADA access to board the trolley.