

**RESOLUTION NO. 2025-11**

**A RESOLUTION OF THE CITY OF DELTONA, FLORIDA;  
REQUESTING APPROVAL OF PROPORTIONATE FAIR  
SHARE AGREEMENT BETWEEN THE CITY OF DELTONA,  
FLORIDA, VOLUSIA COUNTY, AND LEHA INVESTMENT  
PROPERTIES, INC.; PROVIDING FOR CONFLICTS,  
SEVERABILITY, AND AN EFFECTIVE DATE.**

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**WHEREAS**, Leha Investment Properties, Inc. (“Developer”), a Florida profit corporation, is the owner of approximately +/- 10.10 acres of land located at 3141 Howland Boulevard and identified by the Parcel Identification Number 810800000014 (the “Property”) within the boundaries of the City of Deltona, Florida (“City”) in Volusia County, Florida (“County”) and as further described in Exhibit “A;”

**WHEREAS**, the site plan process for the Property will allow the Leha Business Park project to be developed (the “Project”); and

**WHEREAS**, in connection with the site plan review for the Project, a traffic impact analysis (“TIA”), dated October 16, 2024, of the existing road network in the vicinity of the Project was performed by Developer’s traffic consultant in order to determine the availability of roadway capacity to serve the Project, which is hereby incorporated and attached as “Exhibit B;” and

**WHEREAS**, the results of the TIA indicate that there is insufficient roadway capacity in the vicinity of the Property without the anticipated additional traffic impacts of the Project; and

**WHEREAS**, Section 163.3180(5)(h) of the Florida Statutes allows the Developer to pay proportionate fair share mitigation funds as an alternative to demonstrating traffic concurrency in certain circumstances, but specifically exempts backlogged failures from the requirement for a proportionate fair share payment; and

**WHEREAS**, through the TIA, certain traffic impacts were identified in the area of the development (“Impact Area”) and Developer’s obligation to make contribution payment for certain roadway improvements is set forth in this Agreement; and

**WHEREAS**, the Developer will make the required contribution payment for certain roadway improvements to the County as consideration for the roadway improvements to be constructed by the County as required by the City and County to satisfy concurrency

requirements consistent with the requirements of the City's Land Development Code and Section 72 of the Volusia County Land Development Code; and

**WHEREAS**, Lassiter Transportation Group, Inc. calculated the Project's proportionate fair share for the total costs of the offsite traffic improvements to be constructed within the Impact Area to mitigate the impacts of 26,250 square feet of medical-dental office buildings, and 637 units of storage facilities, including RV Parking, as further detailed in the TIA; and

**WHEREAS**, the City, County and Leha Investment Properties, Inc. seek to enter into a Proportionate Fair Share Agreement ("Agreement"), which is hereby attached and incorporated as "Exhibit C," to fund traffic improvements around the Property to create sufficient roadway capacity; these funds will be received by the County from Developer in accordance with the terms of the Agreement; and

**WHEREAS**, the amount in the Agreement must be paid in full by Developer to the County within one (1) year of execution of the PFSA or the outstanding balance shall be revised based on the applicable Consumer Price Index published inflationary rate, and if it is not paid in full to the County by Developer prior to December 31, 2025 then the TIA must be updated and the proportionate fair-share amount recalculated based on conditions at that time; and

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF DELTONA, FLORIDA:**

**Section 1. Proportionate Fair Share Agreement.** The City, County and Leha Investment Properties, Inc. will enter into a Proportionate Fair Share Agreement ("Agreement") to fund traffic improvements around the Property to create sufficient roadway capacity for the proposed project;

**Section 2. Agreement Terms.** Once fully executed, the City and Leha Investment Properties, Inc. agree to be bound by the provisions of the Agreement and are responsible for the successful completion of their obligations under the Agreement. The Agreement requires that Leha Investment Properties, Inc. shall pay the Proportionate Fair Share to the County as consideration for the roadway improvements to be constructed as required by the City and County as a result of the traffic impacts created

by the Project in order to satisfy concurrency requirements consistent with the requirements of the City's Land Development Code and Section 72 of the Volusia County Land Development Code:

**Section 3. Conflicts.** All Resolutions or parts of this Resolution insofar as they are inconsistent or in conflict with the provisions of this Resolution are hereby repealed to the extent of any conflict.

**Section 4. Severability.** In the event any portion of this Resolution is determined to be invalid, illegal, or unconstitutional by a court of competent jurisdiction, such decision shall in no manner affect the remaining portion or sections of the Resolution which shall remain in full force and effect.

**Section 5. Effective Date.** This Resolution shall become effective immediately upon its adoption.

**PASSED AND ADOPTED BY THE CITY COMMISSION OF THE CITY OF  
DELTONA, FLORIDA, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2025.**

BY: \_\_\_\_\_

Santiago Avila, Jr., MAYOR

ATTEST:

\_\_\_\_\_  
Joyce Raftery, CMC, MMC, CITY CLERK

Approved as to form and legality  
for use and reliance of the City of  
Deltona, Florida

\_\_\_\_\_  
TG Law, PLLC, CITY ATTORNEY

# Exhibit A

## LEGAL DESCRIPTION

PARCELS 8108-00-00-0014 & 8108-00-00-0015

BEGIN AT THE SOUTHWEST CORNER OF THE SE  $\frac{1}{4}$  OF THE NW  $\frac{1}{4}$  , SECTION 8, TOWNSHIP 18 SOUTH, RANGE 31 EAST; THEN RUN N  $01^{\circ}15'35''$  W 2262.68 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 444; THENCE RUN EASTERLY ALONG SAID RIGHT-OF-WAY LINE 295.17 FEET; THENCE RUN N  $88^{\circ}44'00''$  E 200 FEET; TO THE POINT OF BEGINNING; THENCE RUN N  $88^{\circ}44'00''$  E 200 FEET; THENCE RUN  $2 01^{\circ}16'00''$  E 1100 FEET; THENCE RUN S  $88^{\circ}44'00''$  W 200 FEET; THENCE RUN N  $01^{\circ}16'00''$  W 1100 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH

BEGIN AT THE SOUTHWEST CORNER OF THE SOUTHEAST  $\frac{1}{4}$  OF THE NORTHWEST  $\frac{1}{4}$ , SECTION 8, TOWNSHIP 18 SOUTH, RANGE 31 EAST; THENCE RUN NORTH  $01^{\circ}15'35''$  WEST 2262.68 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 444; THENCE RUN EASTERLY ALONG SAID RIGHT-OF-WAY LINE 295.17 FEET; THENCE RUN NORTH  $88^{\circ}44'00''$  EAST 400 FEET TO THE POINT OF BEGINNING; THENCE RUN NORTH  $88^{\circ}44'00''$  EAST 200 FEET; THENCE RUN SOUTH  $01^{\circ}16'00''$  EAST 1100 FEET; THENCE RUN SOUTH  $88^{\circ}44'00''$  WEST 200 FEET; THENCE RUN NORTH  $01^{\circ}16'00''$  WEST 1100 FEET TO THE POINT OF BEGINNING.

## Exhibit B

**LEHA Business Park  
Deltona, Florida**

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# Traffic Impact Analysis

**Prepared for: LEHA Investment Properties, Inc.  
By: LTG, Inc.  
July 2024**



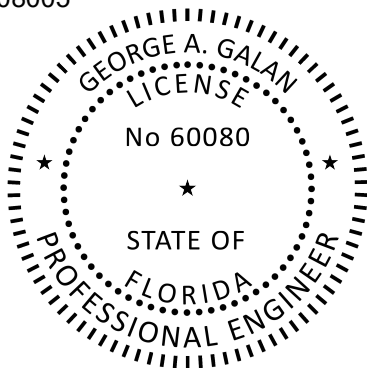
**PROFESSIONAL ENGINEERING CERTIFICATION**

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with LTG, Inc., a corporation authorized to operate as an engineering business, F030424608005, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

**PROJECT:** LEHA Business Park – Traffic Impact Analysis  
**LOCATION:** Deltona, Florida  
**CLIENT:** LEHA Investment Properties, Inc.  
**JOB #:** 5919.02

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.

Prepared by:  
**LTG, Inc.**  
1450 W. Granada Blvd, Suite 2  
Ormond Beach, FL 32174  
Vendor No. F030424608005  
386/257-2571



*THIS ITEM HAS BEEN DIGITALLY  
SIGNED AND SEALED BY:*

*ON THE DATE ADJACENT TO THE SEAL*

*PRINTED COPIES OF THIS DOCUMENT ARE  
NOT CONSIDERED SIGNED AND SEALED AND  
THE SIGNATURE MUST BE VERIFIED ON ANY  
ELECTRONIC COPIES.*

*LTG, INC.  
1450 W GRANADA BLVD SUITE 2  
ORMOND BEACH, FL 32174  
VENDOR NO. F030424608005  
GEORGE A. GALAN, P.E. NO. 60080*

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# 1

## INTRODUCTION

LTG, Inc. (LTG) has been retained by LEHA Investment Properties, Inc. to prepare a Traffic Impact Analysis (TIA) for the proposed LEHA Business Park development. The purpose of the TIA is to obtain traffic concurrency in support of the final site plan. The development is located on the south side of Howland Boulevard approximately 685 feet east of Wolf Pack Run in the City of Deltona, Florida. The proposed development will consist of the following land uses and quantities:

- 26,250 square feet of Medical-Dental Office Building
- 637 Mini-Warehouse storage units, comprised of 117 boat/RV storage units and 520 personal storage units

Access to the development is proposed via one full access driveway on Howland Boulevard across from Roseapple Avenue, creating the fourth leg to the intersection. The project build-out year is 2025. The location of the proposed development in relation to the surrounding roadway network is depicted in Figure 1. A conceptual site plan showing the layout of the site is attached as Appendix A. Please note that while the preliminary site plan, which is conceptual, only depicts 109 boat and RV spaces, the analysis includes 117 boat and RV spaces. The approved methodology is attached as Appendix B.

### Study Procedures

Standard engineering and planning procedures were used to determine the impacts of the proposed project. Reference data was obtained from the Florida Department of Transportation (FDOT), the Volusia County Traffic Engineering Department, the Institute of Transportation Engineers (ITE), and the River to Sea Transportation Planning Organization (R2CTPO).

### Planned Roadway Improvements

Information on programmed or planned roadway improvements in the area of interest was obtained from the FDOT Five-Year Work Program, Volusia County, the R2CTPO Long Range Transportation Plan (LRTP), and previously approved projects. All improvements funded for construction within the first three years of the five-year work program will be considered in the future analysis.

Based on the information obtained, with the widening of Graves Avenue from 2 lanes to 3 lanes (continuous center left turn lane) between Veteran's Memorial Parkway and Kentucky Avenue, an additional improvement at the intersection of Graves Avenue at Veteran's Memorial Parkway will include adding dual left-turn lanes westbound to southbound at Veteran's Memorial Parkway.



**LEHA  
Business Park**



NTS

**Location Map**

Project No.: 5919.02

Figure 1



## Study Area

The study area includes the following intersections and road segments, as approved in the methodology, included as Appendix B.

### Roadway Segments:

- Howland Boulevard:
  - I-4/SR 472 to Wolf Pack Run - Vested Near Critical
  - Wolf Pack Run to Catalina Boulevard - Vested Near Critical
- Catalina Boulevard:
  - Howland Boulevard to Sixma Road - Vested Critical
  - Sixma Road to Lake Helen-Osteen Road - Vested Near Critical
- Orange Camp Road:
  - Blue Lake Avenue to W Volusia Beltway - Vested Near Critical
  - W Volusia Beltway to I-4 - Vested Critical
- W. Volusia Beltway (Kentucky Avenue):
  - Taylor Road to Orange Camp Road - Vested Near Critical
  - Orange Camp Road to Cassadaga Road - Vested Near Critical
- Graves Avenue:
  - Veteran's Memorial Parkway to Kentucky Avenue – Critical
  - Kentucky Avenue to Normandy Boulevard - Vested Critical
  - Normandy Boulevard to Howland Boulevard -Vested Critical
- Veterans Memorial Parkway:
  - Harley Strickland Boulevard to Rhode Island Avenue - Vested Critical
  - Rhode Island Avenue to Graves Avenue - Vested Near Critical
- Providence Boulevard:
  - Ft Smith Boulevard to Elkcam Boulevard - Critical
- Saxon Boulevard:
  - I-4 to Finland Drive - Vested Near Critical
  - Finland Drive to Normandy Boulevard - Near Critical
- Lake Helen-Osteen Road:
  - Howland Boulevard to Elkcam Boulevard - Vested Near Critical
  - Elkcam Boulevard to Haulover Boulevard - Vested Near Critical
- Normandy Boulevard:
  - Graves (old Howland) to Rhode Island Avenue - Vested Critical

### Intersections:

- |   |   |
|---|---|
| 1. Graves Avenue at Veterans Memorial Parkway | 7. Howland Boulevard at Wolf Pack Run           |
| 2. Graves Avenue at Kentucky Avenue           | 8. Howland Boulevard at Roseapple Avenue        |
| 3. Howland Boulevard at I-4 WB Ramp           | 9. Howland Boulevard at Catalina Boulevard      |
| 4. Howland Boulevard at I-4 EB Ramp           | 10. Howland Boulevard at Providence Boulevard   |
| 5. Howland Boulevard at Graves Avenue         | 11. Providence Boulevard at Elkcam Boulevard    |
| 6. Howland Boulevard at Forest Edge Drive     | 12. Providence Boulevard at Ft. Smith Boulevard |

# 2

## EXISTING ROADWAY ANALYSIS

Turning movement counts (TMCs) were conducted during the AM and PM peak-hours at the study area intersections on May 1, 2024. FDOT's 2023 Peak Seasonal Factor (SF) for Volusia County for the corresponding date the TMCs were collected is equal to 0.98, therefore for a more conservative analysis, no seasonal factor was applied to the TMCs. Figures 2A-2C graphically depict the existing peak hour turning movements counts at the study area intersections. The FDOT SF, the raw turning movement counts, and the spreadsheets used to develop the volumes used in the analysis are provided in Appendix C.

### Intersection Analysis

The Level of Service (LOS) at an unsignalized intersection is based on the average stop delay per vehicle for the various movements within the intersection and the LOS at a signalized intersection is based on the average control delay per vehicle for the various movements within the intersection. The operating conditions at the intersections were evaluated using *Synchro 12* and the signal timings provided by the agencies. Synchro utilizes the procedures outlined in Chapters 19 and 20 of the *Highway Capacity Manual, 7th Edition* (HCM7), titled "Signalized Intersections" and "Two-Way Stop Control Intersections," respectively.

Table 1, below, shows the existing AM and PM peak-hour LOS at the study area intersections. The Synchro summary sheets are provided in Appendix D. The signal timings are included in Appendix E.

As indicated in Table 1, two study area intersections are currently operating outside of an acceptable LOS and/or with a v/c ratio greater than 1.0.

### Existing Conditions Roadway Segment Analysis

Roadway LOS describes the operating condition determined from the number of vehicles passing over a given section of roadway during a specified time period. It is a qualitative measure of several factors which include speed, travel time, traffic interruptions, freedom to maneuver, driver comfort, convenience, safety, and vehicle operating costs. Six levels of service have been established as standards by which to gauge roadway performance, designated by the letters A through F. The level of service categories are defined as follows:

*Level of Service A:* Free flow, individual users virtually unaffected by the presence of others

*Level of Service B:* Stable flow with a high degree of freedom to select operating conditions

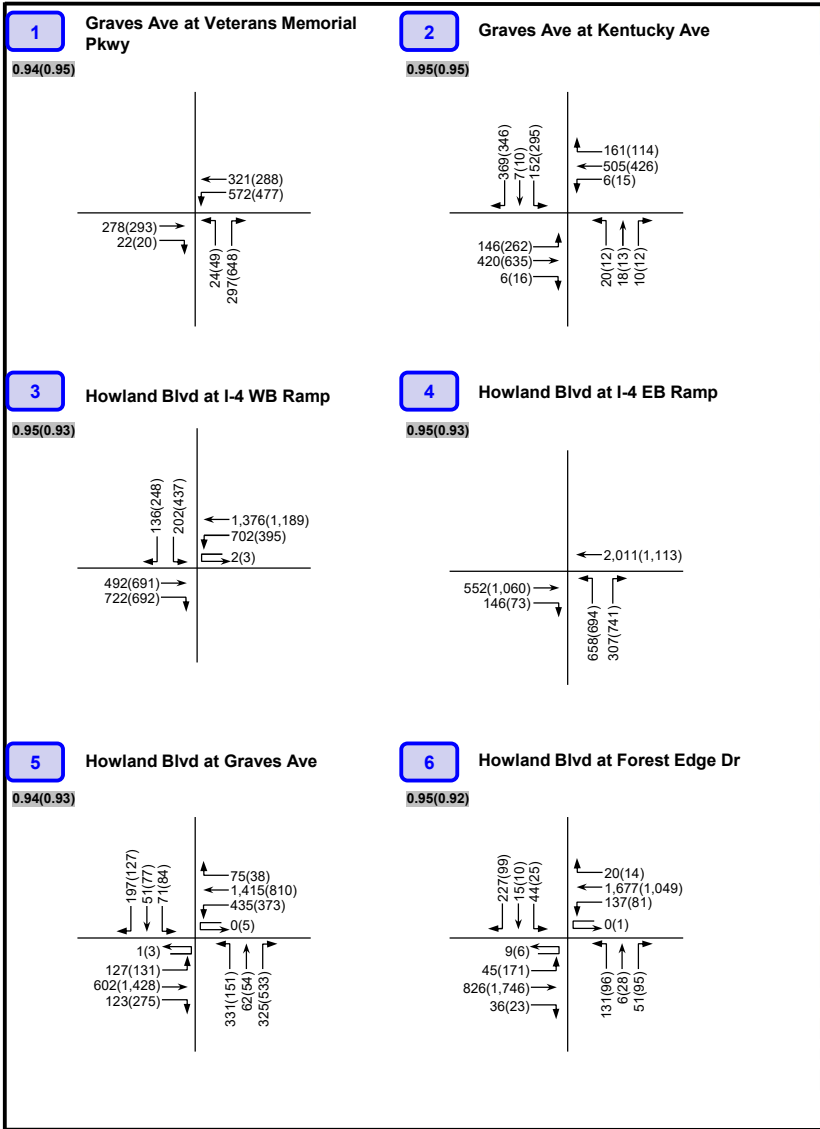
*Level of Service C:* Flow remains stable, but with significant interactions with others

*Level of Service D:* High-density stable flow in which the freedom to maneuver is severely restricted

*Level of Service E:* This condition represents the capacity level of the road

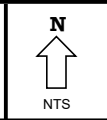
*Level of Service F:* Forced flow in which the traffic exceeds the amount that can be served

The Adopted LOS, capacity, existing AADT, and existing PM Peak-Hour Two-Way Volume obtained from the most recent Volusia County Traffic Count Spreadsheet. The existing LOS for the study area roadway segments are shown in Table 2. As indicated, all study roadway segments currently operate within the adopted LOS except for the segments of Catalina Boulevard from Howland Boulevard to Sixma Road, Graves Avenue from Veteran's Memorial Parkway to Normandy Boulevard, and Providence Boulevard from Ft Smith Boulevard to Elkcam Boulevard.



Legend:  
 XX = AM Peak Hour  
 (XX) = PM Peak Hour  
 [Symbol] = Study Intersection

**LEHA Business Park**

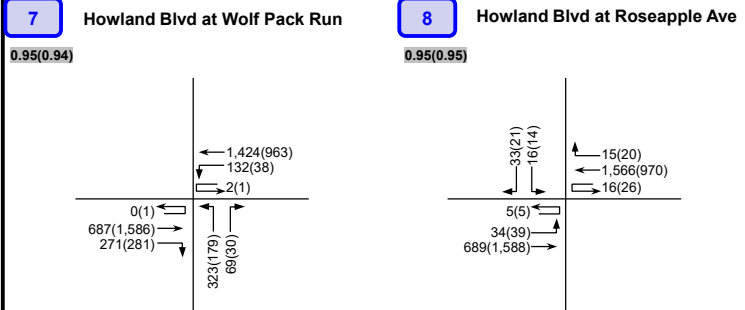


**Existing AM and PM Peak Hour Traffic Volumes**

Project Number: 5919.02

Figure: 2A





**LEHA Business Park**

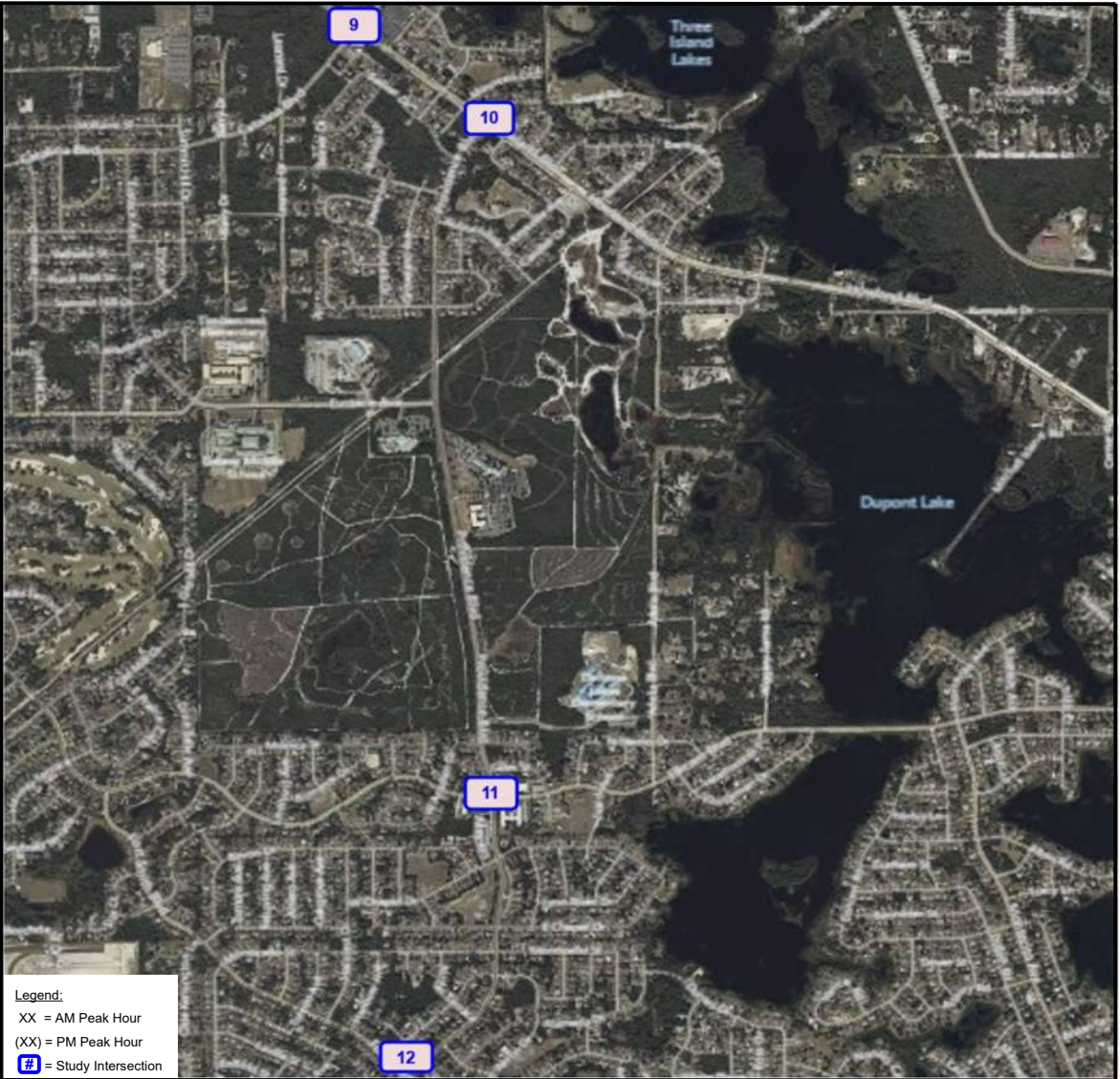
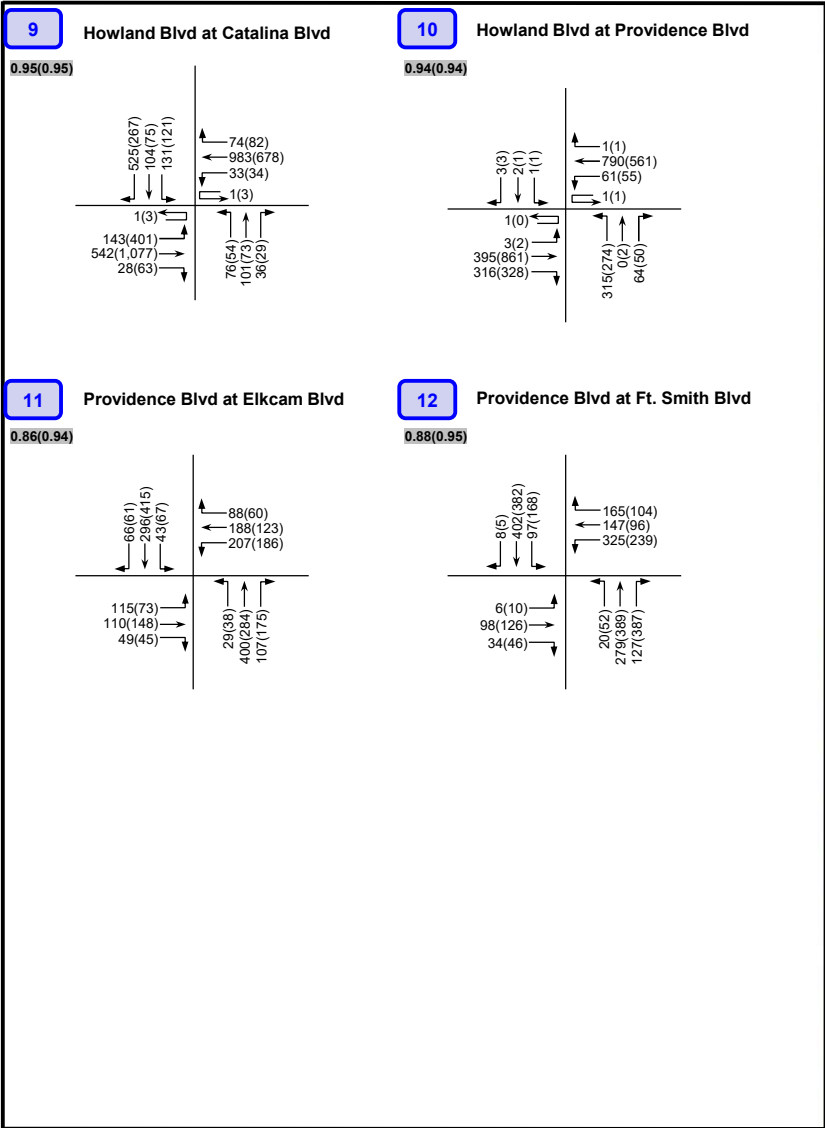


**Existing AM and PM Peak Hour Traffic Volumes**

Project Number: 5919.02

Figure: 2B





Legend:  
 XX = AM Peak Hour  
 (XX) = PM Peak Hour  
 [f] = Study Intersection

LEHA Business Park



Existing AM and PM Peak Hour Traffic Volumes

Project Number: 5919.02

Figure: 2C





**Table 1  
Existing AM and PM Peak Hour LOS – Intersections  
LEHA Business Park**

| Intersection                            | Adopted LOS | AM Peak Hour      |              |     |                     |                          | PM Peak Hour      |              |     |                     |                          |
|---|-------------|-------------------|--------------|-----|---------------------|--------------------------|-------------------|--------------|-----|---------------------|--------------------------|
|   |             | Critical Approach | Delay (sec.) | LOS | Overall Highest V/C | Movement(s) with V/C > 1 | Critical Approach | Delay (sec.) | LOS | Overall Highest V/C | Movement(s) with V/C > 1 |
| 1. Graves Ave at Veterans Memorial Pkwy | E           | -                 | 34.5         | C   | 0.980               | -                        | -                 | 111.8        | F   | 1.470               | NBR                      |
| 2. Graves Ave at Kentucky Ave           | E           | -                 | 24.2         | C   | 0.760               | -                        | -                 | 31.6         | C   | 0.800               | -                        |
| 3. Howland Blvd at I-4 WB Ramp          | E           | -                 | 41.8         | D   | 1.060               | EBR                      | -                 | 36.8         | D   | 0.880               | -                        |
| 4. Howland Blvd at I-4 EB Ramp          | E           | -                 | 25.0         | C   | 0.870               | -                        | -                 | 27.0         | C   | 0.890               | -                        |
| 5. Howland Blvd at Graves Ave           | E           | -                 | 39.0         | D   | 0.830               | -                        | -                 | 36.4         | D   | 0.870               | -                        |
| 6. Howland Blvd at Forest Edge Dr       | E           | -                 | 30.5         | C   | 0.970               | -                        | -                 | 20.8         | C   | 0.850               | -                        |
| 7. Howland Blvd at Wolf Pack Run        | E           | -                 | 22.2         | C   | 0.790               | -                        | -                 | 11.5         | B   | 0.810               | -                        |
| 8. Howland Blvd at Roseapple Ave        | E           | SB                | 31.6         | D   | 0.277               | -                        | SB                | 22.9         | C   | 0.225               | -                        |
| 9. Howland Blvd at Catalina Blvd        | E           | -                 | 41.4         | D   | 0.940               | -                        | -                 | 32.6         | C   | 0.910               | -                        |
| 10. Howland Blvd at Providence Blvd     | E           | -                 | 22.5         | C   | 0.740               | -                        | -                 | 18.0         | B   | 0.800               | -                        |
| 11. Providence Blvd at Elkcam Blvd      | E           | -                 | 30.0         | C   | 0.830               | -                        | -                 | 26.4         | C   | 0.800               | -                        |
| 12. Providence Blvd at Ft. Smith Blvd   | E           | -                 | 22.4         | C   | 0.720               | -                        | -                 | 24.4         | C   | 0.780               | -                        |

**Table 2  
Existing PM Peak-Hour LOS - Roadway Segments  
LEHA Business Park**

| Roadway                            | Segment                  |                      | No. of Lanes | Adopted LOS | AADT   | Existing PM Peak Hour Two-Way Volume | Peak Hour Two-Way Capacity at Adopted LOS | Existing PM Volume Exceeds Peak Hour Capacity? |
|------------------------------------|--------------------------|----------------------|--------------|-------------|--------|--------------------------------------|---|--|
| Howland Blvd                       | I-4/SR 472               | Wolf Pack Run        | 4            | E           | 30,900 | 2,410                                | 3,410                                     | No   |
|                                    | Wolf Pack Run            | Catalina Blvd        | 4            | E           | 27,100 | 2,125                                | 3,410                                     | No   |
| Catalina Blvd                      | Howland Blvd             | Sixma Rd             | 2            | D           | 10,764 | 1,002                                | 960                                       | Yes  |
|                                    | Sixma Rd                 | Lake Helen-Osteen Rd | 2            | D           | 9,674  | 856                                  | 960                                       | No   |
| Orange Camp Rd                     | Blue Lake Ave            | W Volusia Bltwy      | 2            | E           | 12,400 | 1,075                                | 1,540                                     | No   |
|                                    | W Volusia Bltwy          | I-4                  | 2            | E           | 13,300 | 1,170                                | 1,540                                     | No   |
| W. Volusia Bltwy<br>(Kentucky Ave) | Taylor Rd                | Orange Camp Rd       | 2            | E           | 11,000 | 910                                  | 1,540                                     | No   |
|                                    | Orange Camp Rd           | Cassadaga Rd         | 2            | E           | 9,150  | 755                                  | 1,540                                     | No   |
| Graves Ave                         | Veteran's Memorial Pkwy  | Kentucky Ave         | 2            | E           | 20,000 | 1,635                                | 1,620                                     | Yes  |
|                                    | Kentucky Ave             | Normandy Blvd        | 2            | E           | 19,700 | 1,675                                | 1,620                                     | Yes  |
|                                    | Normandy Blvd            | Howland Blvd         | 4            | E           | 16,100 | 1,340                                | 2,740                                     | No   |
| Veterans Memorial Pkwy             | Harley Strickland Blvd   | Rhode Island Ave     | 2            | E           | 18,800 | 1,480                                | 1,540                                     | No   |
|                                    | Rhode Island Ave         | Graves Ave           | 2            | E           | 14,100 | 1,100                                | 1,620                                     | No   |
| Providence Blvd                    | Ft Smith Blvd            | Elkcam Blvd          | 2            | E           | 13,100 | 1,075                                | 1,020                                     | Yes  |
| Saxon Blvd                         | I-4                      | Finland Dr           | 5            | E           | 46,500 | 3,750                                | 4,280                                     | No   |
|                                    | Finland Dr               | Normandy Blvd        | 4            | E           | 40,300 | 3,170                                | 3,410                                     | No   |
| Lake Helen-Osteen Rd               | Howland Blvd             | Elkcam Blvd          | 2            | E           | 8,400  | 770                                  | 1,020                                     | No   |
|                                    | Elkcam Blvd              | Haulover Blvd        | 2            | E           | 8,950  | 865                                  | 1,230                                     | No   |
| Normandy Blvd                      | Graves Ave (old Howland) | Rhode Island Ave     | 2            | D           | 8,262  | 787                                  | 1,150                                     | No   |

*\*No. of Lanes, Adopted LOS, AADT, Existing PM Peak Hour Volume, and Peak Hour Capacity obtained from the most recent Volusia County Traffic Count Spreadsheet. Peak Hour Two-Way volumes for Harley Strickland Boulevard and Rhode Island Avenue based on collected TMCs.*

# 3

## BACKGROUND ROADWAY CONDITIONS

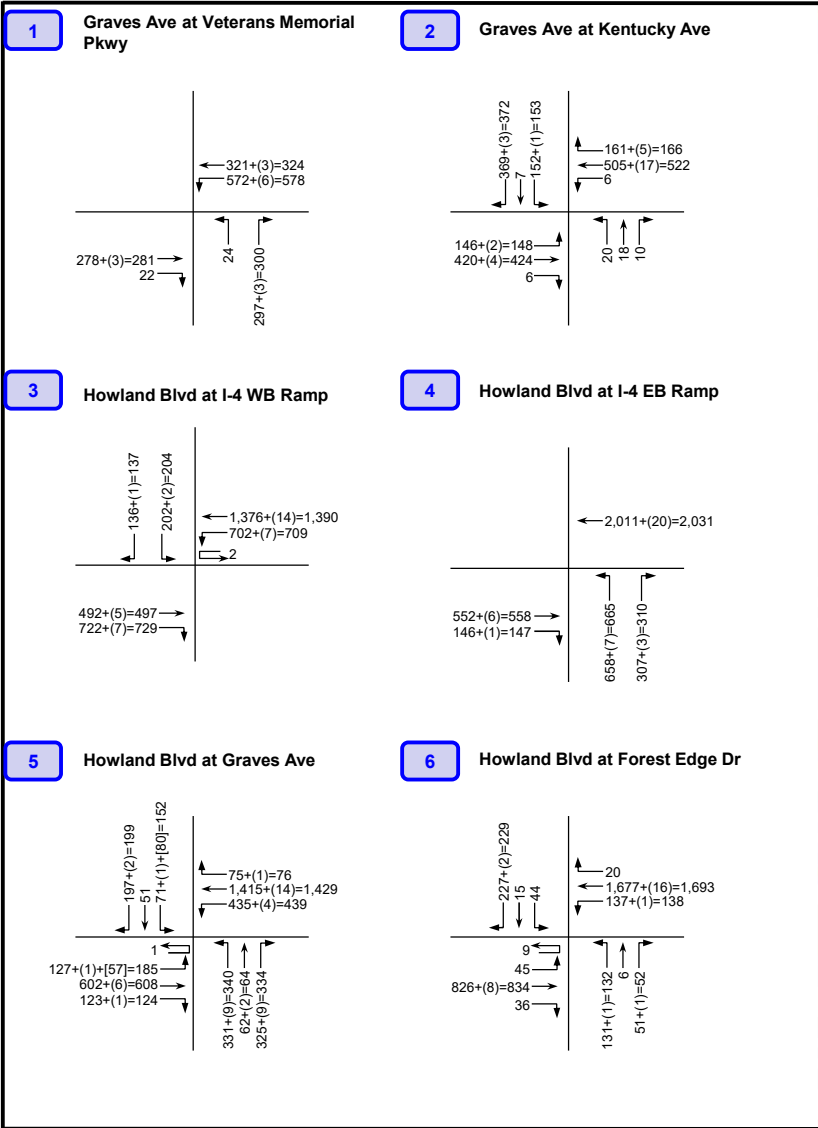
Traffic in the area is expected to grow due to local government approvals. The following documents the procedures used to determine the background conditions for 2025. Figures 3A-3F graphically depict the background AM and PM peak hour turning movement counts at the study area intersections. The study area intersections and roadway segments were analyzed to determine potential impacts of background traffic and to investigate any needed mitigation.

### Background Traffic Growth

As presented in the approved methodology, the historical growth rate for each study area roadway segment was determined using 5-years and 10-years of historical AADT, FDOT *Traffic Trends* software and methods outlined in the Volusia County's Segment Growth Rates and Vested Trips Policy, dated August 2020.

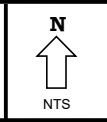
Vested trips from Deltona Village Town Center Project (Phases I-IV), Deltona Village, Eloah Estates, and Halifax Crossings, as identified by the city of Deltona, were used in the development of the final growth applied to the segments and utilized in the segment analysis at the applicable intersections under future conditions analyses.

The Volusia County's Segment Growth Rates and Vested Trips Policy, FDOT *Traffic Trends* analysis worksheets, and the vested trips utilized are attached as Appendix F. Per Volusia County directive, exponential regression will not be used to determine growth, 2020 AADTs will not be used, and the potential for a reduction in vested trips is not applicable within this study area. The growth rate evaluation and applied growth for the study area roadway segments are provided in Table 3 and the additional growth rate evaluation and applied growth for the study area intersections are provided in Table 4.



**Legend:**  
 XX = Existing Volume  
 (XX) = Growth  
 [XX] = Vested Trips  
 [X] = Study Intersection

**LEHA Business Park**



**Background AM Peak Hour Traffic Volumes**

Project Number: 5919.02      Figure: 3A

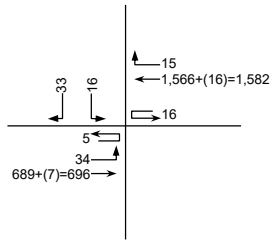
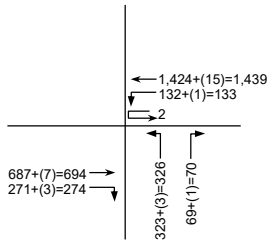


7

Howland Blvd at Wolf Pack Run

8

Howland Blvd at Roseapple Ave



LEHA Business Park

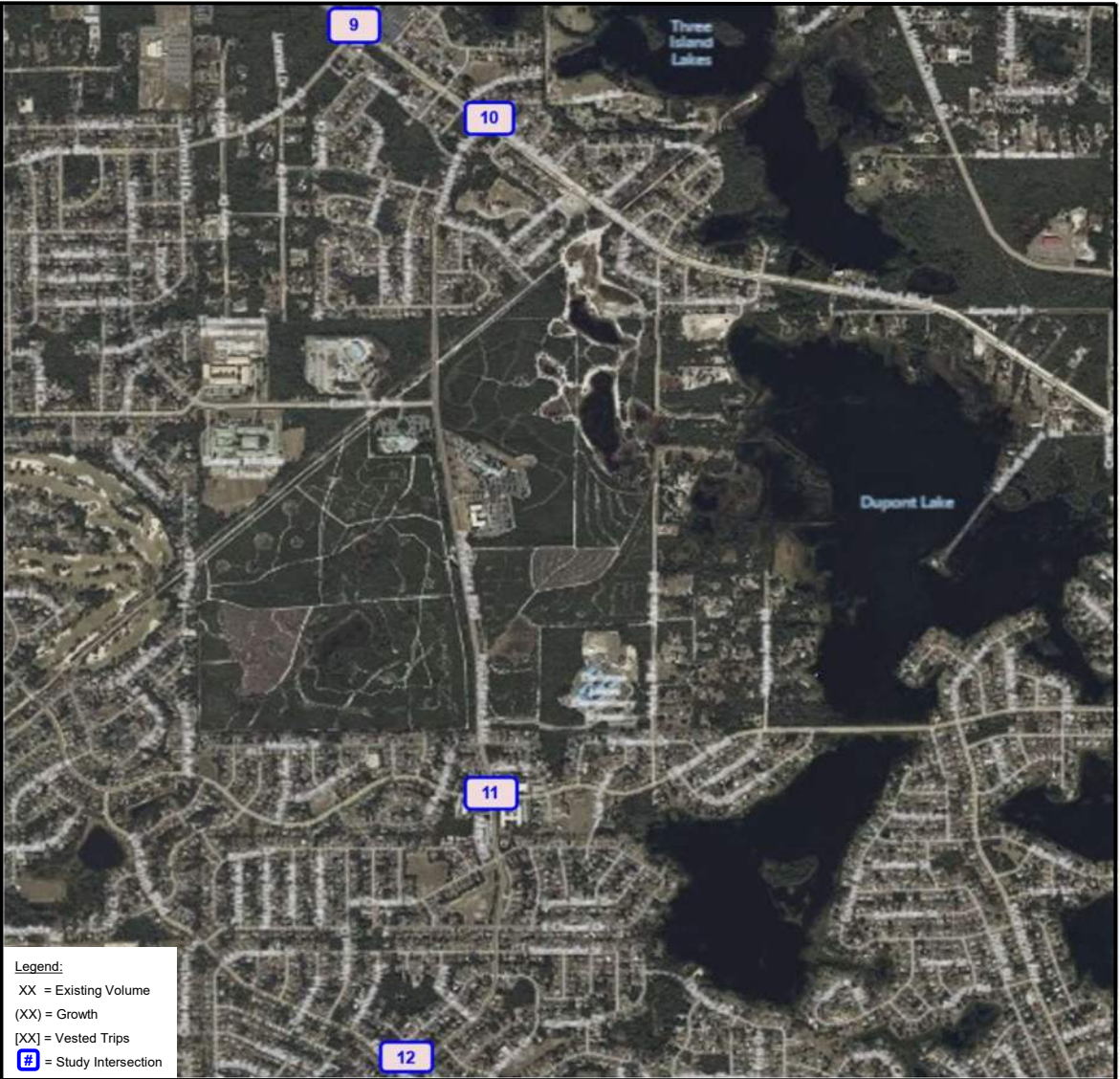
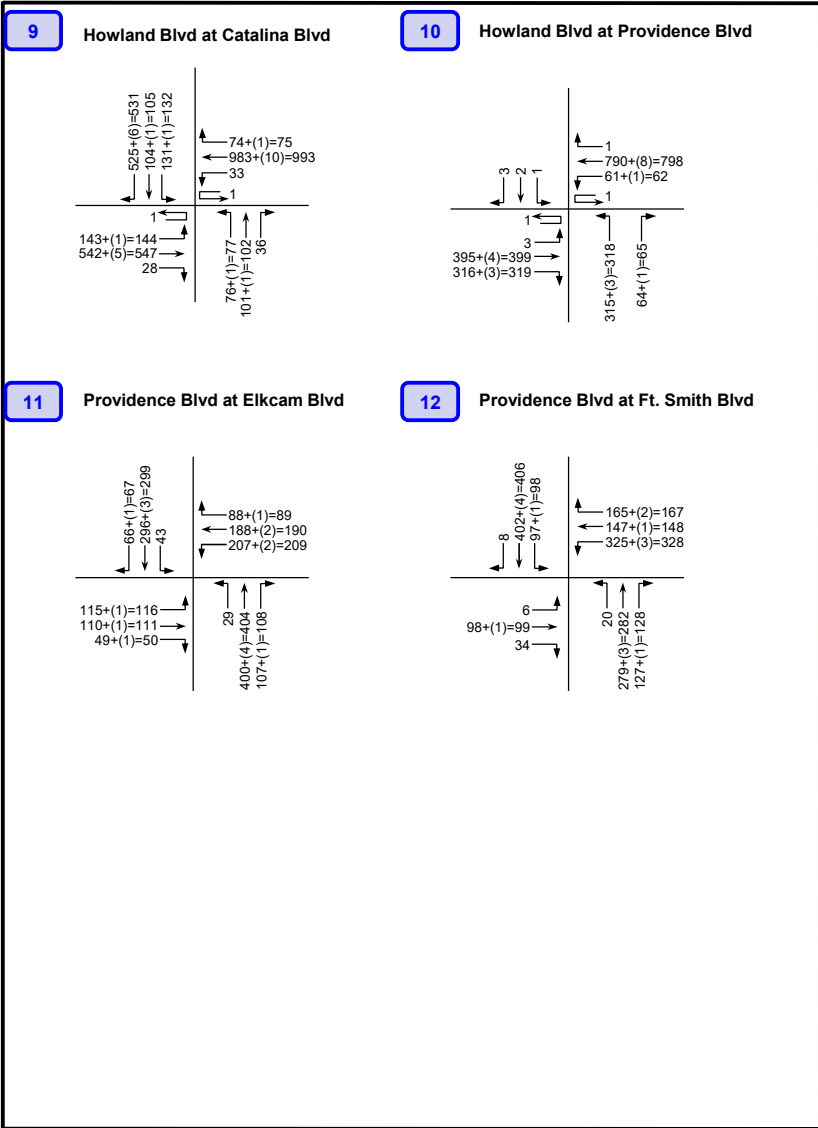


Background AM Peak Hour Traffic Volumes

Project Number: 5919.02

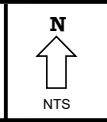
Figure: 3B





Legend:  
 XX = Existing Volume  
 (XX) = Growth  
 [XX] = Vested Trips  
 [f] = Study Intersection

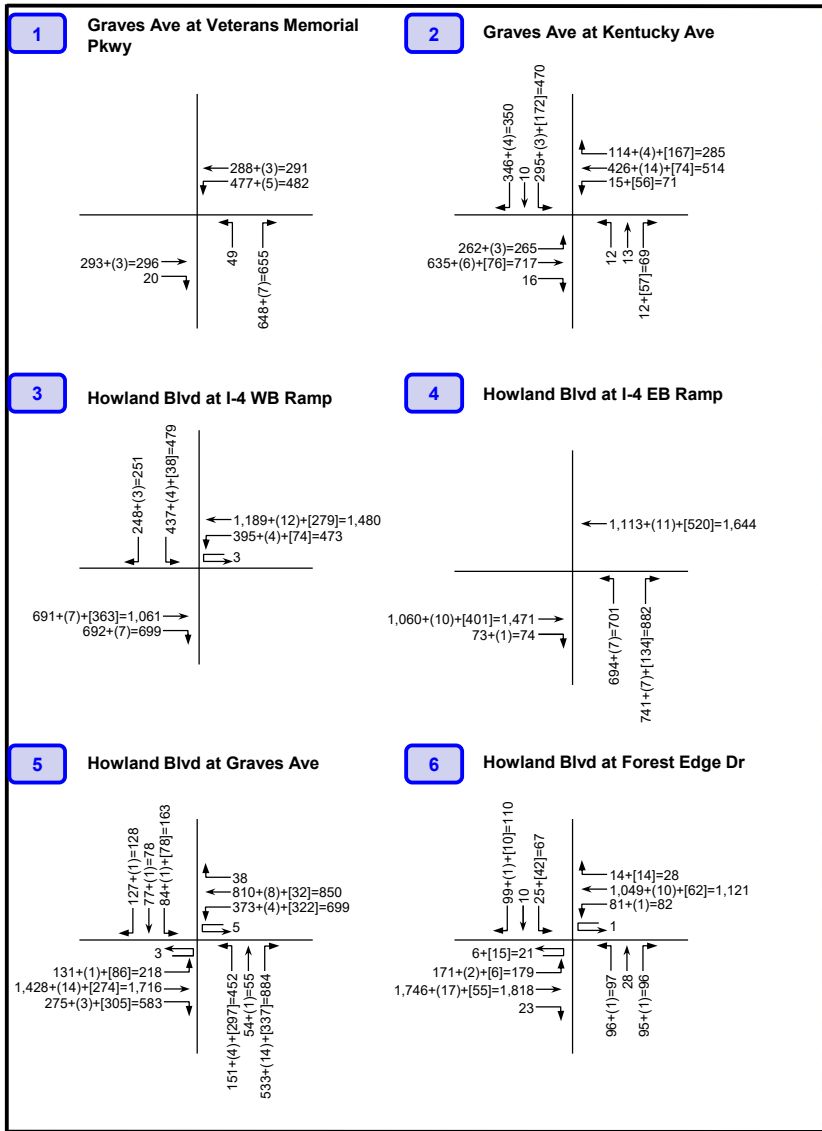
**LEHA Business Park**



**Background AM Peak Hour Traffic Volumes**

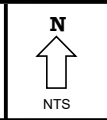
Project Number: 5919.02      Figure: 3C





Legend:  
 XX = Existing Volume  
 (XX) = Growth  
 [XX] = Vested Trips  
 [X] = Study Intersection

**LEHA Business Park**



**Background PM Peak Hour Traffic Volumes**

Project Number: 5919.02

Figure: 3D

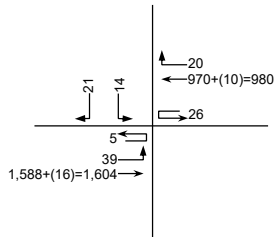
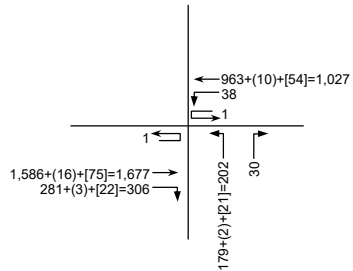


7

Howland Blvd at Wolf Pack Run

8

Howland Blvd at Roseapple Ave



Legend:  
 XX = Existing Volume  
 (XX) = Growth  
 [XX] = Vested Trips  
 [f] = Study Intersection

LEHA Business Park



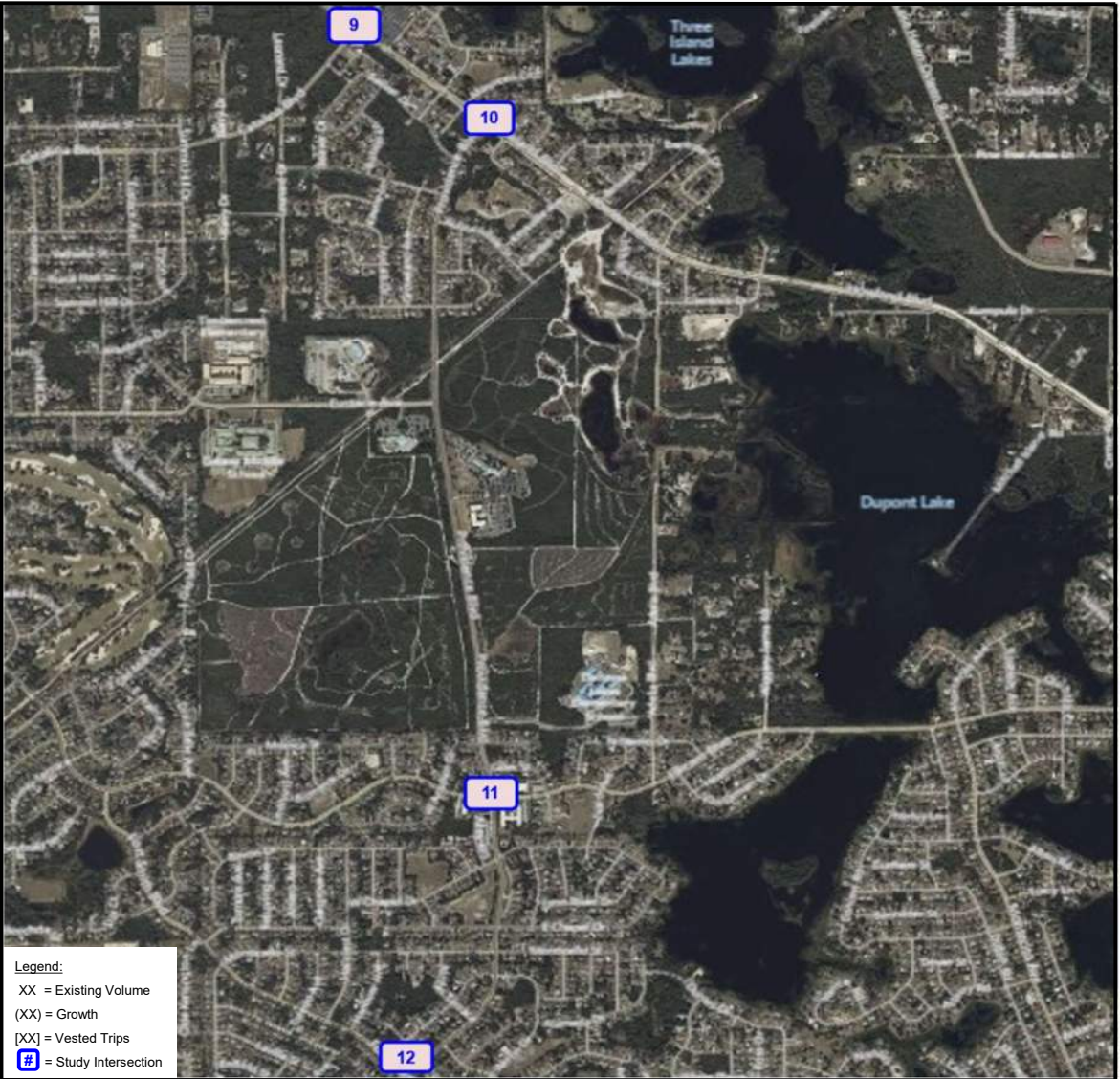
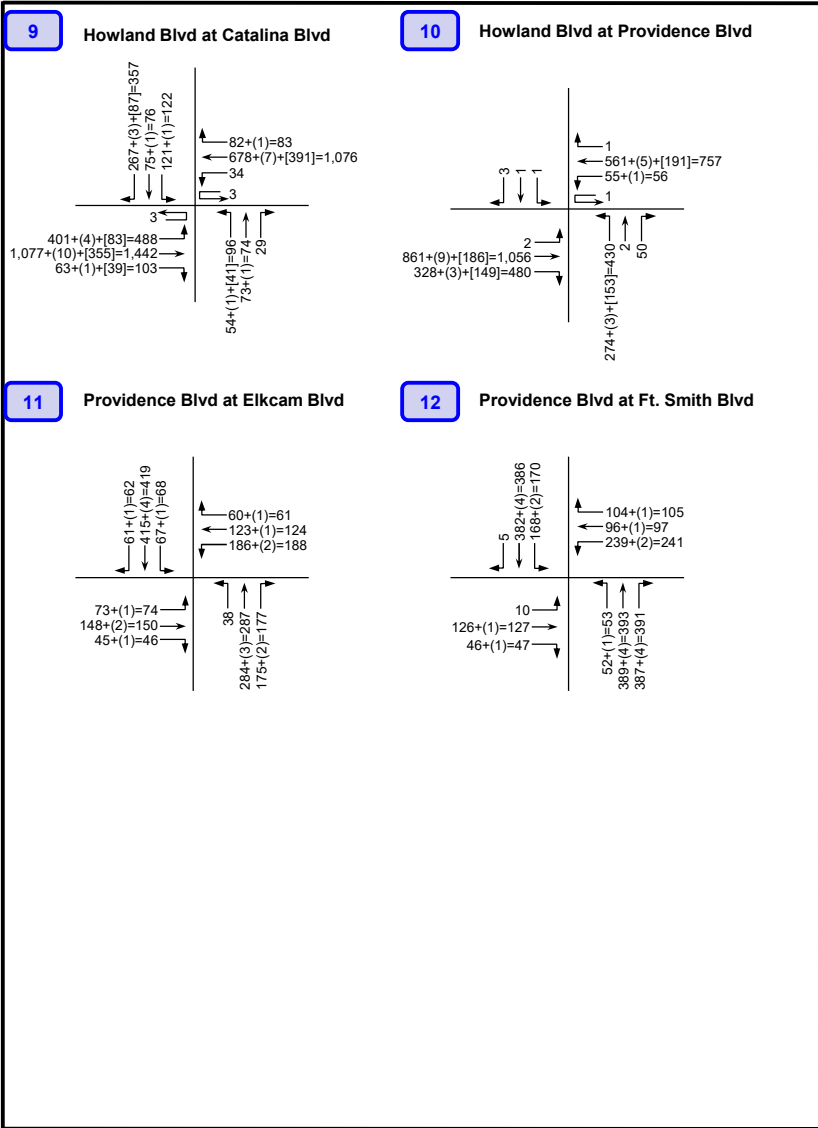
Background PM  
Peak Hour Traffic Volumes

Project Number: 5919.02

Figure: 3E







Legend:  
 XX = Existing Volume  
 (XX) = Growth  
 [XX] = Vested Trips  
 [f] = Study Intersection

LEHA Business Park



Background PM  
 Peak Hour Traffic Volumes

Project Number: 5919.02

Figure: 3F



**Table 3  
Growth Rate Determination – Study Area Roadway Segments  
LEHA Business Park**

| Roadway                         | Segment                  |                      | 5-Year              |                      |                   | 10-Year             |                      |                   | Applied Growth Rate | Applied Growth Rate if using Adjacent Segment | High Growth? | Vested Trips | Existing PM Peak Hour Volume | Existing PM Peak Hour Volume Data Year | Build-Out Year | Growth Rate (# of Trips) | Growth Method Applied | Total Growth Applied (# of Trips) | Total 2025 Background Volume |
|---------------------------------|--------------------------|----------------------|---------------------|----------------------|-------------------|---------------------|----------------------|-------------------|---------------------|---|--------------|--------------|------------------------------|--|----------------|--------------------------|-----------------------|-----------------------------------|------------------------------|
|                                 |                          |                      | Best Fit Regression | R <sup>2</sup> Value | Historical Growth | Best Fit Regression | R <sup>2</sup> Value | Historical Growth |                     |   |              |              |                              |  |                |                          |                       |                                   |                              |
| Howland Blvd                    | I-4/SR 472               | Wolf Pack Run        | Decaying Exp.       | 98.7%                | -1.58%            | -                   | -                    | -                 | 1.00%               | -   | N            | 868          | 2,410                        | 2022                                   | 2025           | 72                       | Historical + Vested   | 940                               | 3,350                        |
|                                 | Wolf Pack Run            | Catalina Blvd        | Linear              | 99.5%                | -4.03%            | -                   | -                    | -                 | 1.00%               | -   | N            | 783          | 2,125                        | 2022                                   | 2025           | 64                       | Historical + Vested   | 847                               | 2,972                        |
| Catalina Blvd                   | Howland Blvd             | Sixma Rd             | Linear              | 43.7%                | -2.17%            | -                   | -                    | -                 | Check adjacent      | 1.00%   | N            | 126          | 1,002                        | 2018                                   | 2025           | 70                       | Historical + Vested   | 196                               | 1,198                        |
|                                 | Sixma Rd                 | Lake Helen-Osteen Rd | Linear              | 12.5%                | -0.71%            | -                   | -                    | -                 | Check adjacent      | 1.00%   | N            | 110          | 856                          | 2018                                   | 2025           | 60                       | Historical + Vested   | 170                               | 1,026                        |
| Orange Camp Rd                  | Blue Lake Ave            | W Volusia Bltwy      | Linear              | 24.7%                | -1.88%            | Decaying Exp.       | 80.7%                | 0.51%             | 1.00%               | -   | N            | 197          | 1,075                        | 2022                                   | 2025           | 32                       | Historical + Vested   | 229                               | 1,304                        |
|                                 | W Volusia Bltwy          | I-4                  | Linear              | 86.9%                | -2.59%            | -                   | -                    | -                 | 1.00%               | -   | N            | 355          | 1,170                        | 2022                                   | 2025           | 35                       | Historical + Vested   | 390                               | 1,560                        |
| W. Volusia Bltwy (Kentucky Ave) | Taylor Rd                | Orange Camp Rd       | Decaying Exp.       | 69.9%                | -1.77%            | Linear              | 2.8%                 | -0.40%            | Check adjacent      | 1.00%   | N            | 345          | 910                          | 2022                                   | 2025           | 27                       | Historical + Vested   | 372                               | 1,282                        |
|                                 | Orange Camp Rd           | Cassadaga Rd         | Linear              | 74.5%                | -7.43%            | Decaying Exp.       | 3.6%                 | 0.88%             | 1.00%               | -   | N            | 382          | 755                          | 2022                                   | 2025           | 23                       | Historical + Vested   | 405                               | 1,160                        |
| Graves Ave                      | Veteran's Memorial Pkwy  | Kentucky Ave         | Linear              | 4.4%                 | -0.62%            | Decaying Exp.       | 75.9%                | 0.24%             | 1.00%               | -   | N            | 470          | 1,635                        | 2022                                   | 2025           | 49                       | Historical + Vested   | 519                               | 2,154                        |
|                                 | Kentucky Ave             | Normandy Blvd        | Linear              | 68.8%                | 4.73%             | Linear              | 80.0%                | 3.21%             | 3.21%               | -   | Y            | 925          | 1,675                        | 2022                                   | 2025           | 161                      | Vested                | 925                               | 2,600                        |
|                                 | Normandy Blvd            | Howland Blvd         | Decaying Exp.       | 34.0%                | 1.01%             | Linear              | 75.2%                | 2.70%             | 2.70%               | -   | N            | 991          | 1,340                        | 2022                                   | 2025           | 109                      | Historical + Vested   | 1,100                             | 2,440                        |
| Veterans Memorial Pkwy          | Harley Strickland Blvd   | Rhode Island Ave     | Linear              | 25.5%                | -1.56%            | Decaying Exp.       | 40.2%                | 0.25%             | Check adjacent      | 1.00%   | N            | 397          | 1,480                        | 2022                                   | 2025           | 44                       | Historical + Vested   | 441                               | 1,921                        |
|                                 | Rhode Island Ave         | Graves Ave           | Decaying Exp.       | 4.2%                 | 0.84%             | Linear              | 17.0%                | -1.37%            | Check adjacent      | 1.00%   | N            | 332          | 1,100                        | 2022                                   | 2025           | 33                       | Historical + Vested   | 365                               | 1,465                        |
| Providence Blvd                 | Ft Smith Blvd            | Elkcam Blvd          | Linear              | 67.6%                | -0.76%            | Decaying Exp.       | 1.5%                 | 0.19%             | Check adjacent      | 1.00%   | N            | 60           | 1,075                        | 2022                                   | 2025           | 32                       | Historical + Vested   | 92                                | 1,167                        |
| Saxon Blvd                      | I-4                      | Finland Dr           | Linear              | 84.6%                | 5.59%             | -                   | -                    | -                 | 5.59%               | -   | Y            | 262          | 3,750                        | 2022                                   | 2025           | 629                      | Historical Growth     | 629                               | 4,379                        |
|                                 | Finland Dr               | Normandy Blvd        | Decaying Exp.       | 45.6%                | 0.50%             | Decaying Exp.       | 65.8%                | 0.30%             | Check adjacent      | 5.59%   | Y            | 262          | 3,170                        | 2022                                   | 2025           | 532                      | Historical Growth     | 532                               | 3,702                        |
| Lake Helen-Osteen Rd            | Howland Blvd             | Elkcam Blvd          | Linear              | 40.1%                | 2.74%             | Linear              | 81.8%                | 3.35%             | 3.35%               | -   | Y            | 0            | 770                          | 2022                                   | 2025           | 77                       | Historical Growth     | 77                                | 847                          |
|                                 | Elkcam Blvd              | Haulover Blvd        | Decaying Exp.       | 0.5%                 | -0.27%            | Linear              | 49.4%                | 4.30%             | Check adjacent      | 3.35%   | Y            | 47           | 865                          | 2022                                   | 2025           | 87                       | Historical Growth     | 87                                | 952                          |
| Normandy Blvd                   | Graves Ave (old Howland) | Rhode Island Ave     | Decaying Exp.       | 78.9%                | 0.67%             | -                   | -                    | -                 | 1.00%               | -   | N            | 764          | 787                          | 2018                                   | 2025           | 55                       | Historical + Vested   | 819                               | 1,606                        |

**Table 4  
Growth Rate Determination – Additional for Intersections  
LEHA Business Park**

| Roadway                | Segment          |                   | 5-Year              |                      |                   | 10-Year             |                      |                   | Applied Growth Rate | Applied Growth Rate if using Adjacent Segment |
|------------------------|------------------|-------------------|---------------------|----------------------|-------------------|---------------------|----------------------|-------------------|---------------------|---|
|                        |                  |                   | Best Fit Regression | R <sup>2</sup> Value | Historical Growth | Best Fit Regression | R <sup>2</sup> Value | Historical Growth |                     |   |
| Veterans Memorial Pkwy | Graves Ave       | SR 472            | Decaying Exp.       | 64.5%                | 0.23%             | Decaying Exp.       | 87.3%                | 0.22%             | 1.00%               |   |
| SR 472                 | CR 4101/MLK Blvd | I-4               | Linear              | 48.2%                | 3.45%             | Decaying Exp.       | 66.3%                | 0.16%             | Check adjacent      | 1.00%   |
| Howland Blvd           | Catalina Blvd    | Providence Blvd   | Exponential         | 87.7%                | -4.58%            |                     |                      |                   | 1.00%               |   |
|                        | Providence Blvd  | Elkcam Blvd       | Decaying Exp.       | 96.2%                | -2.82%            |                     |                      |                   | 1.00%               |   |
|                        | Elkcam Blvd      | Lake Helen-Osteen | Linear              | 97.3%                | -5.67%            |                     |                      |                   | 1.00%               |   |
| Providence Blvd        | Elkcam Blvd      | Howland Blvd      | Exponential         | 89.7%                | -1.92%            |                     |                      |                   | 1.00%               |   |
|                        | Tivoli Dr        | Ft Smith Blvd     | Linear              | 27.0%                | 2.50%             | Linear              | 12.3%                | -1.07%            | Check adjacent      | 1.00%   |

## 2025 Background Intersection Analysis

The study area intersections were analyzed to determine the operational LOS under background conditions and the results are provided in Table 5. The Synchro summary sheets are contained in Appendix G. Note that the planned roadway improvement of dual westbound left turn lanes at the intersection of Veteran's Memorial Parkway at Graves Avenue, including optimization of the signal timings, was included in the analysis.

**Table 5  
2025 Background AM and PM Peak Hour LOS – Intersections  
LEHA Business Park**

| Intersection                            | Adopted LOS | AM Peak Hour      |              |     |                     |                          | PM Peak Hour      |              |     |                     |                          |
|---|-------------|-------------------|--------------|-----|---------------------|--------------------------|-------------------|--------------|-----|---------------------|--------------------------|
|   |             | Critical Approach | Delay (sec.) | LOS | Overall Highest V/C | Movement(s) with V/C > 1 | Critical Approach | Delay (sec.) | LOS | Overall Highest V/C | Movement(s) with V/C > 1 |
| 1. Graves Ave at Veterans Memorial Pkwy | E           | -                 | 25.3         | C   | 0.850               | -                        | -                 | 53.2         | D   | 0.960               | -                        |
| 2. Graves Ave at Kentucky Ave           | E           | -                 | 24.3         | C   | 0.760               | -                        | -                 | 48.8         | D   | 0.930               | -                        |
| 3. Howland Blvd at I-4 WB Ramp          | E           | -                 | 42.6         | D   | 1.080               | EBR                      | -                 | 46.5         | D   | 0.950               | -                        |
| 4. Howland Blvd at I-4 EB Ramp          | E           | -                 | 25.3         | C   | 0.880               | -                        | -                 | 26.1         | C   | 0.890               | -                        |
| 5. Howland Blvd at Graves Ave           | E           | -                 | 44.9         | D   | 1.010               | SBL                      | -                 | 95.4         | F   | 1.560               | EBT, WBL, NBL, NBT, SBL  |
| 6. Howland Blvd at Forest Edge Dr       | E           | -                 | 30.7         | C   | 0.980               | -                        | -                 | 27.7         | C   | 0.890               | -                        |
| 7. Howland Blvd at Wolf Pack Run        | E           | -                 | 22.4         | C   | 0.790               | -                        | -                 | 14.8         | B   | 0.870               | -                        |
| 8. Howland Blvd at Roseapple Ave        | E           | SB                | 32.3         | D   | 0.282               | -                        | SB                | 23.2         | C   | 0.230               | -                        |
| 9. Howland Blvd at Catalina Blvd        | E           | -                 | 42.2         | D   | 0.940               | -                        | -                 | 77.4         | E   | 1.660               | EBL                      |
| 10. Howland Blvd at Providence Blvd     | E           | -                 | 22.6         | C   | 0.740               | -                        | -                 | 30.4         | C   | 1.110               | NBL                      |
| 11. Providence Blvd at Elkcam Blvd      | E           | -                 | 30.3         | C   | 0.830               | -                        | -                 | 26.7         | C   | 0.810               | -                        |
| 12. Providence Blvd at Ft. Smith Blvd   | E           | -                 | 22.7         | C   | 0.730               | -                        | -                 | 24.8         | C   | 0.780               | -                        |

As indicated in Table 5, four study area intersections are anticipated to operate outside of an acceptable LOS and/or with a v/c ratio greater than 1.00 under background conditions. The following improvements are recommended at the deficient intersections in order to achieve an acceptable LOS and/or v/c ratios less than 1.00:

3. Howland Boulevard at I-4 WB Ramp:
  - Optimize signal timing splits in the AM peak-hour
  
5. Howland Boulevard at Graves Avenue:
  - Add a third eastbound through lane (the northbound right-turn lane will no longer be an add-lane),
  - Add a second northbound left-turn lane (dual lefts)
  - Convert the shared northbound through-left lane to a dedicated northbound through lane
  - Adjust timings to non-split phase
  - Optimize signal timing splits
  
9. Howland Boulevard at Catalina Boulevard:
  - Optimize signal timing splits in the PM peak-hour
  
10. Howland Boulevard at Providence Boulevard:
  - Optimize signal timing splits in the PM peak-hour

The analysis of the deficient intersections with the proposed improvements is provided in Table 6, below, and the Synchro summary sheets are contained in Appendix H.

**Table 6  
2025 Background AM and PM Peak Hour LOS – Intersections Improved  
LEHA Business Park**

| Intersection                        | Adopted LOS | AM Peak Hour      |              |     |                     |                          | PM Peak Hour      |              |     |                     |                          |
|-------------------------------------|-------------|-------------------|--------------|-----|---------------------|--------------------------|-------------------|--------------|-----|---------------------|--------------------------|
|                                     |             | Critical Approach | Delay (sec.) | LOS | Overall Highest V/C | Movement(s) with V/C > 1 | Critical Approach | Delay (sec.) | LOS | Overall Highest V/C | Movement(s) with V/C > 1 |
| 3. Howland Blvd at I-4 WB Ramp      | E           | -                 | 34.5         | C   | 0.960               | -                        | -                 | -            | -   | -                   |                          |
| 5. Howland Blvd at Graves Ave       | E           | -                 | 39.7         | D   | 0.840               | -                        | -                 | 52.2         | D   | 0.950               |                          |
| 9. Howland Blvd at Catalina Blvd    | E           | -                 | -            | -   | -                   | -                        | -                 | 43.3         | D   | 0.950               |                          |
| 10. Howland Blvd at Providence Blvd | E           | -                 | -            | -   | -                   | -                        | -                 | 28.5         | C   | 0.880               |                          |

**2025 Background Conditions Roadway Segment Analysis**

The background PM peak hour two-way LOS for the study area roadway segments are shown in Table 7, below. As indicated in the table, ten of the study area roadway segments are anticipated to operate outside of the adopted LOS capacity under background conditions. The following improvements are recommended for the failing roadway segments:

Catalina Boulevard from Howland Boulevard to Sixma Road:

- Widen from 2 to 4 lanes

Catalina Boulevard from Sixma Road to Lake Helen-Osteen Road:

- Widen from 2 to 4 lanes

Orange Camp Road from W Volusia Beltway to I-4:

- Widen from 2 to 4 lanes

Graves Avenue from Veteran’s Memorial Parkway to Kentucky Avenue:

- Widen from 3 to 4 lanes

Graves Avenue from Kentucky Avenue to N. Normandy Boulevard:

- Widen from 2 to 4 lanes

Veteran’s Memorial Parkway from Harley Strickland Boulevard to Rhode Island Avenue:

- Widen from 2 to 4 lanes

Providence Boulevard from Ft Smith Boulevard to Elkcam Boulevard:

- Widen from 2 to 4 lanes

Saxon Boulevard from I-4 to Finland Drive:

- Widen from 4 to 6 lanes

Saxon Boulevard from Finland Drive to Normandy Boulevard:

- Widen from 4 to 6 lanes

Normandy Boulevard from Graves Avenue (old Howland) to Rhode Island Avenue:

- Widen from 2 to 4 lanes

The roadway segments were then analyzed with the recommended improvements and the results are provided in Table 8, below.

**Table 7  
2025 Background Daily and PM Peak Hour LOS – Roadway Segments  
LEHA Business Park**

| Roadway                         | Segment                  |                      | No. of Lanes | Adopted LOS | Existing PM Peak Hour Two-Way Volume | Applied Growth Rate | High Growth? | Growth Rate (# of Trips) | Vested Trips | Growth Method Applied | Total Growth Applied (# of Trips) | Total 2025 Background Volume | Peak Hour Two-Way Capacity at Adopted LOS | Background PM Volume Exceeds Peak Hour Capacity? |
|---------------------------------|--------------------------|----------------------|--------------|-------------|--------------------------------------|---------------------|--------------|--------------------------|--------------|-----------------------|-----------------------------------|------------------------------|---|--|
| Howland Blvd                    | I-4/SR 472               | Wolf Pack Run        | 4            | E           | 2,410                                | 1.00%               | N            | 72                       | 868          | Historical + Vested   | 940                               | 3,350                        | 3,410                                     | No   |
| Howland Blvd                    | Wolf Pack Run            | Catalina Blvd        | 4            | E           | 2,125                                | 1.00%               | N            | 64                       | 783          | Historical + Vested   | 847                               | 2,972                        | 3,410                                     | No   |
| Catalina Blvd                   | Howland Blvd             | Sixma Rd             | 2            | D           | 1,002                                | 1.00%               | N            | 70                       | 126          | Historical + Vested   | 196                               | 1,198                        | 960                                       | Yes  |
| Catalina Blvd                   | Sixma Rd                 | Lake Helen-Osteen Rd | 2            | D           | 856                                  | 1.00%               | N            | 60                       | 110          | Historical + Vested   | 170                               | 1,026                        | 960                                       | Yes  |
| Orange Camp Rd                  | Blue Lake Ave            | W Volusia Bltwy      | 2            | E           | 1,075                                | 1.00%               | N            | 32                       | 197          | Historical + Vested   | 229                               | 1,304                        | 1,540                                     | No   |
| Orange Camp Rd                  | W Volusia Bltwy          | I-4                  | 2            | E           | 1,170                                | 1.00%               | N            | 35                       | 355          | Historical + Vested   | 390                               | 1,560                        | 1,540                                     | Yes  |
| W. Volusia Bltwy (Kentucky Ave) | Taylor Rd                | Orange Camp Rd       | 2            | E           | 910                                  | 1.00%               | N            | 27                       | 345          | Historical + Vested   | 372                               | 1,282                        | 1,540                                     | No   |
| W. Volusia Bltwy (Kentucky Ave) | Orange Camp Rd           | Cassadaga Rd         | 2            | E           | 755                                  | 1.00%               | N            | 23                       | 382          | Historical + Vested   | 405                               | 1,160                        | 1,540                                     | No   |
| Graves Ave                      | Veteran's Memorial Pkwy  | Kentucky Ave         | 3            | E           | 1,635                                | 1.00%               | N            | 49                       | 470          | Historical + Vested   | 519                               | 2,154                        | 1,935                                     | Yes  |
| Graves Ave                      | Kentucky Ave             | Normandy Blvd        | 2            | E           | 1,675                                | 3.21%               | Y            | 161                      | 925          | Vested                | 925                               | 2,600                        | 1,620                                     | Yes  |
| Graves Ave                      | Normandy Blvd            | Howland Blvd         | 4            | E           | 1,340                                | 2.70%               | N            | 109                      | 991          | Historical + Vested   | 1,100                             | 2,440                        | 2,740                                     | No   |
| Veterans Memorial Pkwy          | Harley Strickland Blvd   | Rhode Island Ave     | 2            | E           | 1,480                                | 1.00%               | N            | 44                       | 397          | Historical + Vested   | 441                               | 1,921                        | 1,540                                     | Yes  |
| Veterans Memorial Pkwy          | Rhode Island Ave         | Graves Ave           | 2            | E           | 1,100                                | 1.00%               | N            | 33                       | 332          | Historical + Vested   | 365                               | 1,465                        | 1,620                                     | No   |
| Providence Blvd                 | Ft Smith Blvd            | Elkcam Blvd          | 2            | E           | 1,075                                | 1.00%               | N            | 32                       | 60           | Historical + Vested   | 92                                | 1,167                        | 1,020                                     | Yes  |
| Saxon Blvd                      | I-4                      | Finland Dr           | 5            | E           | 3,750                                | 5.59%               | Y            | 629                      | 262          | Historical Growth     | 629                               | 4,379                        | 4,280                                     | Yes  |
| Saxon Blvd                      | Finland Dr               | Normandy Blvd        | 4            | E           | 3,170                                | 5.59%               | Y            | 532                      | 262          | Historical Growth     | 532                               | 3,702                        | 3,410                                     | Yes  |
| Lake Helen-Osteen Rd            | Howland Blvd             | Elkcam Blvd          | 2            | E           | 770                                  | 3.35%               | Y            | 77                       | 0            | Historical Growth     | 77                                | 847                          | 1,020                                     | No   |
| Lake Helen-Osteen Rd            | Elkcam Blvd              | Haulover Blvd        | 2            | E           | 865                                  | 3.35%               | Y            | 87                       | 47           | Historical Growth     | 87                                | 952                          | 1,230                                     | No   |
| Normandy Blvd                   | Graves Ave (old Howland) | Rhode Island Ave     | 2            | D           | 787                                  | 1.00%               | N            | 55                       | 764          | Historical + Vested   | 819                               | 1,606                        | 1,150                                     | Yes  |

\*Includes roadway improvement of widening Graves Ave from Veteran's Memorial Pkwy to Kentucky Ave

**Table 8  
2025 Background Daily and PM Peak Hour LOS – Roadway Segments - Improved\*  
LEHA Business Park**

| Roadway                | Segment                  |                      | No. of Lanes | Adopted LOS | Existing PM Peak Hour Two-Way Volume | Applied Growth Rate | High Growth? | Growth Rate (# of Trips) | Vested Trips | Growth Method Applied | Total Growth Applied (# of Trips) | Total 2025 Background Volume | Peak Hour Two-Way Capacity at Adopted LOS | Background PM Volume Exceeds Peak Hour Capacity? |
|------------------------|--------------------------|----------------------|--------------|-------------|--------------------------------------|---------------------|--------------|--------------------------|--------------|-----------------------|-----------------------------------|------------------------------|---|--|
| Catalina Blvd          | Howland Blvd             | Sixma Rd             | 4            | D           | 1,002                                | 1.00%               | N            | 70                       | 126          | Historical + Vested   | 196                               | 1,198                        | 3,410                                     | No   |
| Catalina Blvd          | Sixma Rd                 | Lake Helen-Osteen Rd | 4            | D           | 856                                  | 1.00%               | N            | 60                       | 110          | Historical + Vested   | 170                               | 1,026                        | 3,410                                     | No   |
| Orange Camp Rd         | W Volusia Bltwy          | I-4                  | 4            | E           | 1,170                                | 1.00%               | N            | 35                       | 355          | Historical + Vested   | 390                               | 1,560                        | 3,410                                     | No   |
| Graves Ave             | Veteran's Memorial Pkwy  | Kentucky Ave         | 4            | E           | 1,635                                | 1.00%               | N            | 49                       | 470          | Historical + Vested   | 519                               | 2,154                        | 3,410                                     | No   |
| Graves Ave             | Kentucky Ave             | Normandy Blvd        | 4            | E           | 1,675                                | 3.21%               | Y            | 161                      | 925          | Vested                | 925                               | 2,600                        | 3,410                                     | No   |
| Veterans Memorial Pkwy | Harley Strickland Blvd   | Rhode Island Ave     | 4            | E           | 1,480                                | 1.00%               | N            | 44                       | 397          | Historical + Vested   | 441                               | 1,921                        | 3,410                                     | No   |
| Providence Blvd        | Ft Smith Blvd            | Elkcam Blvd          | 4            | E           | 1,075                                | 1.00%               | N            | 32                       | 60           | Historical + Vested   | 92                                | 1,167                        | 3,410                                     | No   |
| Saxon Blvd             | I-4                      | Finland Dr           | 6            | E           | 3,750                                | 5.59%               | Y            | 629                      | 262          | Historical Growth     | 629                               | 4,379                        | 5,140                                     | No   |
| Saxon Blvd             | Finland Dr               | Normandy Blvd        | 6            | E           | 3,170                                | 5.59%               | Y            | 532                      | 262          | Historical Growth     | 532                               | 3,702                        | 5,140                                     | No   |
| Normandy Blvd          | Graves Ave (old Howland) | Rhode Island Ave     | 4            | D           | 787                                  | 1.00%               | N            | 55                       | 764          | Historical + Vested   | 819                               | 1,606                        | 3,410                                     | No   |

\*The improved roadway capacities are based on comparable county roadways capacities. These improvements are recommendations only and are not funded for construction.

# 4

## BUILD-OUT ROADWAY ANALYSIS

The study area intersections and roadway segments were analyzed based on the roadway conditions at the time of build-out to determine potential impacts of project-generated trips and identify mitigation requirements. The improvements recommended in 2025 background conditions have been included in the build-out analysis for those applicable intersections and roadway segments.

### Trip Generation

The daily, AM peak hour, and PM peak hour trip generation for the proposed development was determined using the Institute of Transportation Engineers' (ITE) 11<sup>th</sup> Edition of the *Trip Generation Manual*. The trip generation is summarized in Table 9.

**Table 9  
Trip Generation  
LEHA Business Park**

| Time Period    | Land Use                       | Land Use Code | Trip Rate Equation      | Size  | Units  | Percent Entering | Percent Exiting | Trips Entering | Trips Exiting | Total Trips  |
|----------------|--------------------------------|---------------|-------------------------|-------|--------|------------------|-----------------|----------------|---------------|--------------|
| Daily          | Medical-Dental Office Building | 720           | $T=42.97(X)-108.01$     | 26.25 | KSF    | 50%              | 50%             | 510            | 510           | 1,020        |
|                | Mini-Warehouse                 | 151           | $T=18.86(X)-4.09$       | 5.20  | Units* | 50%              | 50%             | 47             | 47            | 94           |
|                | Boat/RV Storage**              | 151           | $T=18.86(X)-4.09$       | 1.17  | Units* | 50%              | 50%             | 9              | 9             | 18           |
| <b>Totals:</b> |                                |               |                         |       |        |                  |                 | <b>566</b>     | <b>566</b>    | <b>1,132</b> |
| AM Peak Hour   | Medical-Dental Office Building | 720           | $\ln(T)=0.9\ln(X)+1.34$ | 26.25 | KSF    | 79%              | 21%             | 57             | 15            | 72           |
|                | Mini-Warehouse                 | 151           | $T=1.21(X)$             | 5.20  | Units* | 51%              | 49%             | 3              | 3             | 6            |
|                | Boat/RV Storage**              | 151           | $T=1.21(X)$             | 1.17  | Units* | 51%              | 49%             | 1              | 0             | 1            |
| <b>Totals:</b> |                                |               |                         |       |        |                  |                 | <b>61</b>      | <b>18</b>     | <b>79</b>    |
| PM Peak Hour   | Medical-Dental Office Building | 720           | $T=4.07(X)-3.17$        | 26.25 | KSF    | 30%              | 70%             | 31             | 73            | 104          |
|                | Mini-Warehouse                 | 151           | $T=1.68(X)$             | 5.20  | Units* | 50%              | 50%             | 4              | 5             | 9            |
|                | Boat/RV Storage**              | 151           | $T=1.68(X)$             | 1.17  | Units* | 50%              | 50%             | 1              | 1             | 2            |
| <b>Totals:</b> |                                |               |                         |       |        |                  |                 | <b>36</b>      | <b>79</b>     | <b>115</b>   |

\*Per 100 Storage Units/Spaces

\*\*The RV/Boat Storage trip generation review is attached as Appendix I

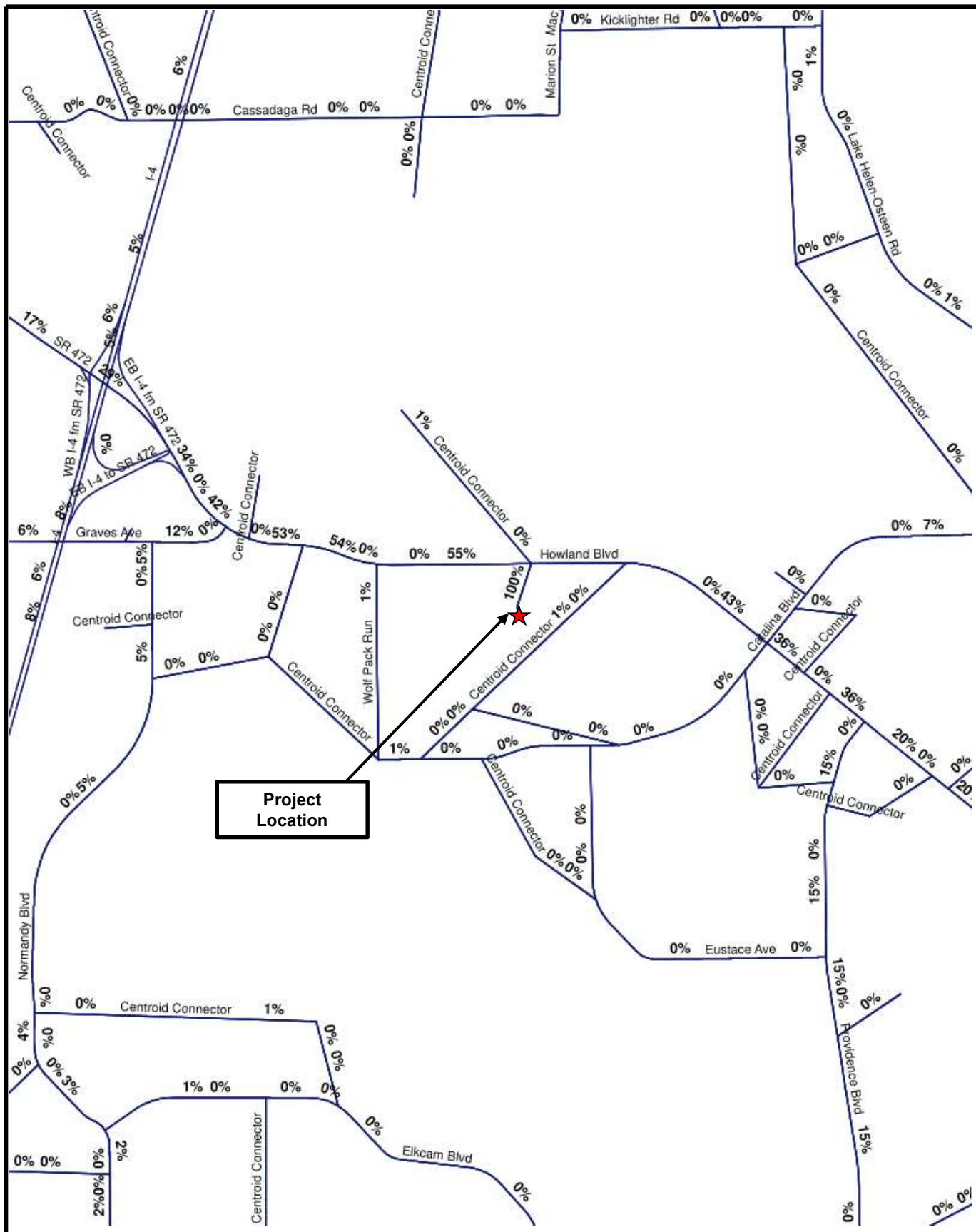
### Trip Distribution

The process of determining the directional flow of traffic associated with a new development is called trip distribution. The Central Florida Regional Planning Model (CFRPM), Version 7, was used to obtain project trip distribution and is presented in Figure 4. Additional views of the model distribution are provided in Appendix J.

### Trip Assignment

The final step in the analysis was to assign the project traffic to the road network. Figure 5A-5F graphically depict the AM and PM peak hour traffic assignment for the proposed development.





**LEHA  
Business Park**



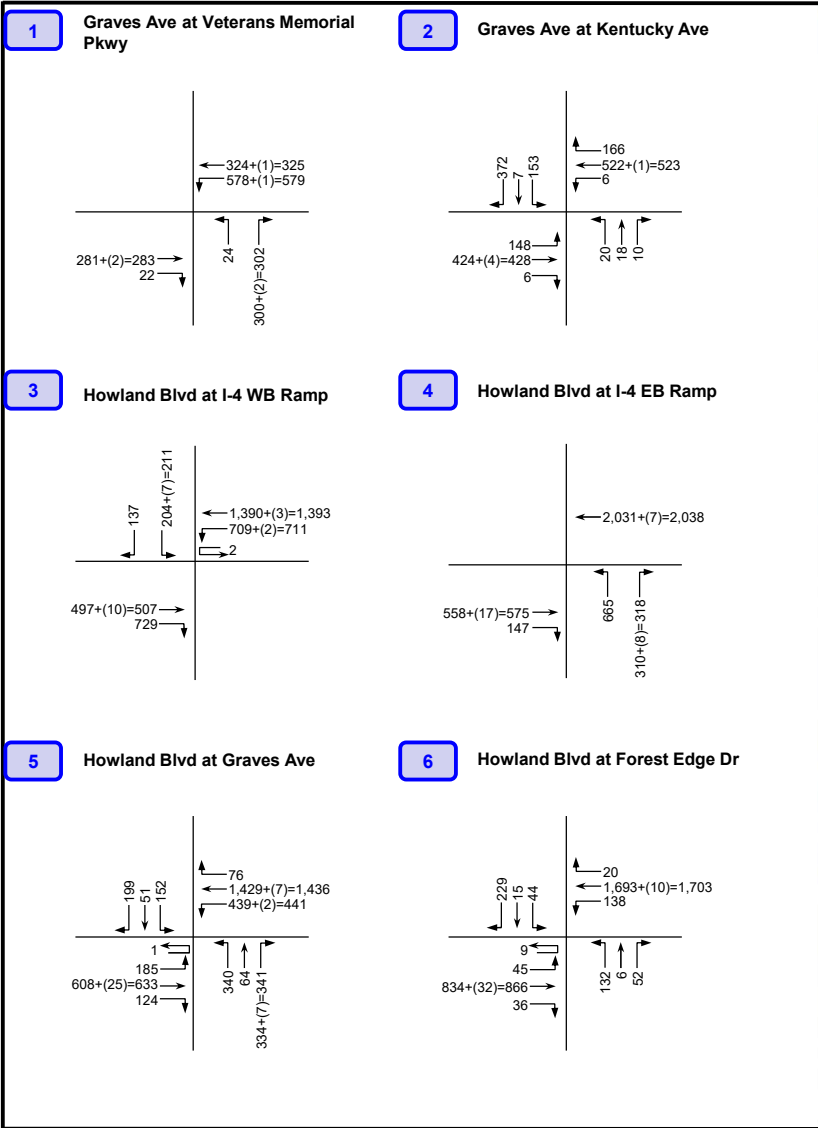
NTS

**Project Trip  
Distribution**

Project No.: 5919.02

Figure 4



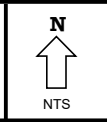


| AM Peak Hour         |       |      |       |
|----------------------|-------|------|-------|
|                      | Enter | Exit | Total |
| <b>Project Trips</b> | 61    | 18   | 79    |



**Legend:**  
 XX = Total Background Volume  
 (XX) = Project Trips  
 [XX] = Pass-By Trips  
 [B] = Study Intersection

**LEHA Business Park**



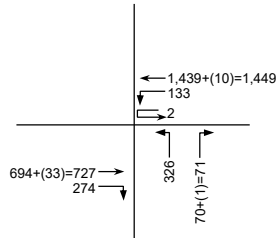
**Build-Out AM Peak Hour Traffic Volumes**

Project Number: 5919.02      Figure: 5A



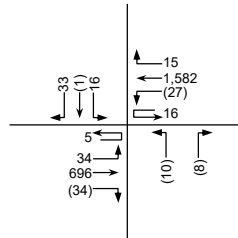
7

Howland Blvd at Wolf Pack Run



8

Howland Blvd at Roseapple Ave



| AM Peak Hour  |       |      |       |
|---------------|-------|------|-------|
|               | Enter | Exit | Total |
| Project Trips | 61    | 18   | 79    |



**Legend:**  
 XX = Total Background Volume  
 (XX) = Project Trips  
 [XX] = Pass-By Trips  
 [i] = Study Intersection

LEHA Business Park



Build-Out AM Peak Hour Traffic Volumes

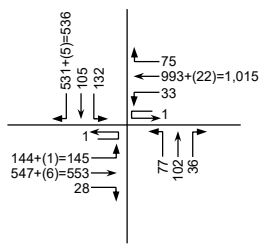
Project Number: 5919.02

Figure: 5B



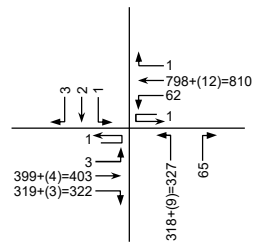
9

Howland Blvd at Catalina Blvd



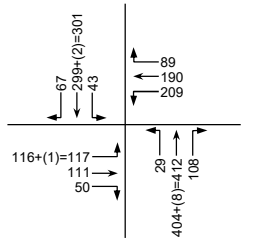
10

Howland Blvd at Providence Blvd



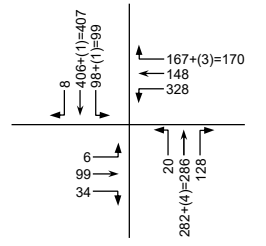
11

Providence Blvd at Elkcarn Blvd



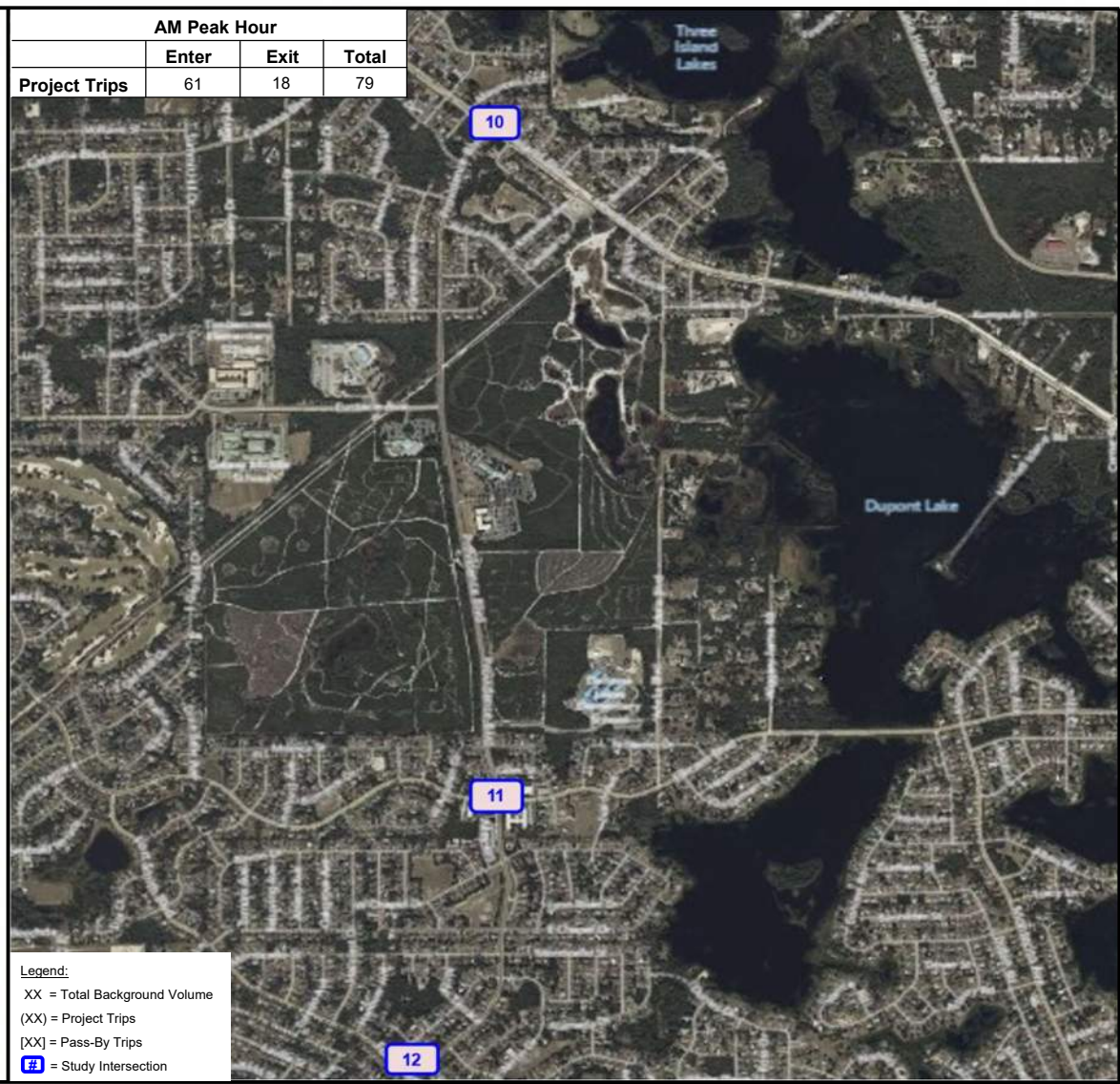
12

Providence Blvd at Ft. Smith Blvd



AM Peak Hour

|               | Enter | Exit | Total |
|---------------|-------|------|-------|
| Project Trips | 61    | 18   | 79    |



Legend:  
 XX = Total Background Volume  
 (XX) = Project Trips  
 [XX] = Pass-By Trips  
 [f] = Study Intersection

LEHA Business Park

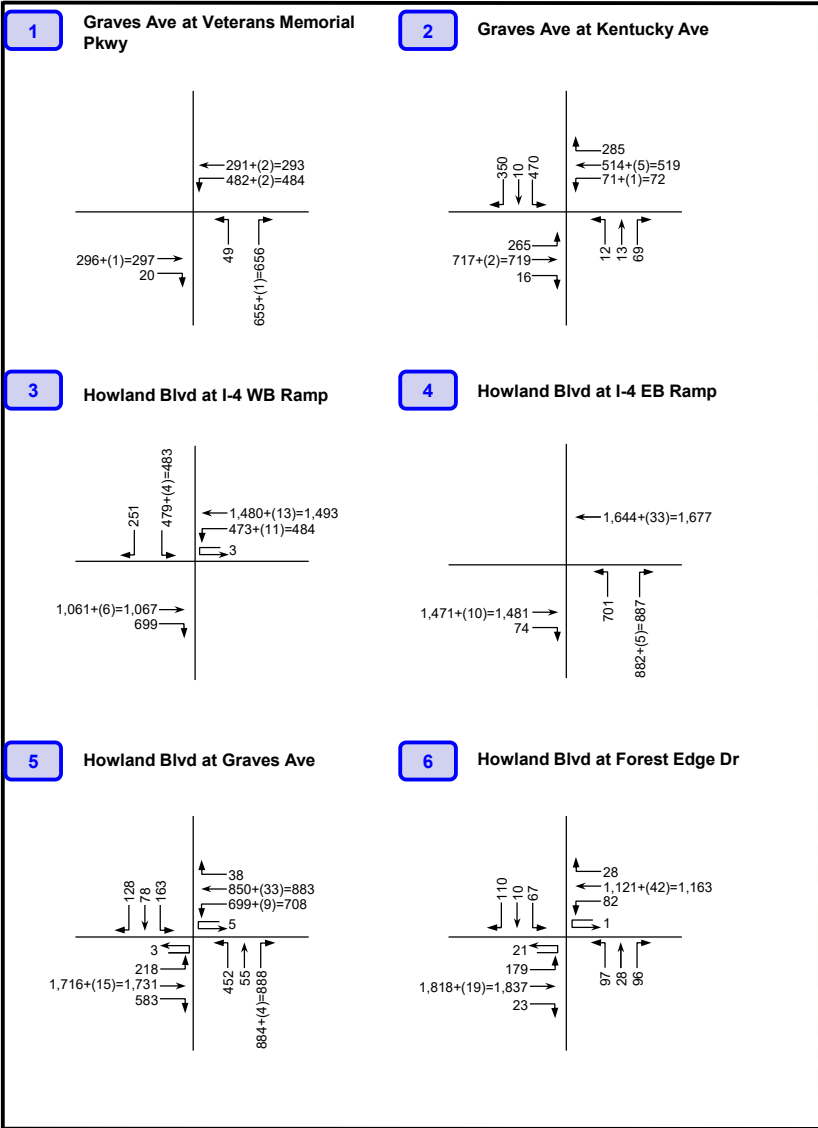


Build-Out AM Peak Hour Traffic Volumes

Project Number: 5919.02

Figure: 5C

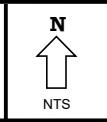




| PM Peak Hour  |       |      |       |
|---------------|-------|------|-------|
|               | Enter | Exit | Total |
| Project Trips | 36    | 79   | 115   |



**LEHA Business Park**



**Build-Out PM  
Peak Hour Traffic Volumes**

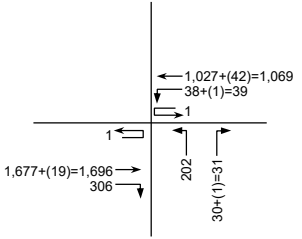
Project Number: 5919.02

Figure: 5D



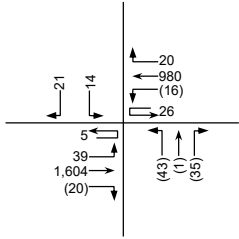
7

Howland Blvd at Wolf Pack Run



8

Howland Blvd at Roseapple Ave



| PM Peak Hour  |       |      |       |
|---------------|-------|------|-------|
|               | Enter | Exit | Total |
| Project Trips | 36    | 79   | 115   |



**Legend:**  
 XX = Total Background Volume  
 (XX) = Project Trips  
 [XX] = Pass-By Trips  
 [B] = Study Intersection

LEHA Business Park



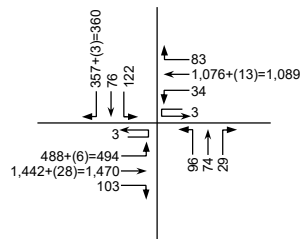
Build-Out PM Peak Hour Traffic Volumes

Project Number: 5919.02

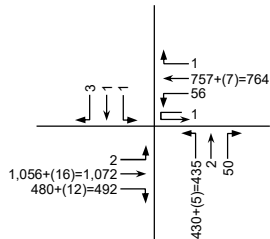
Figure: 5E



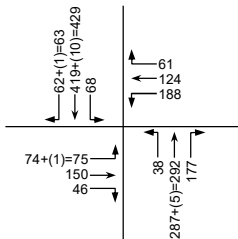
**9** Howland Blvd at Catalina Blvd



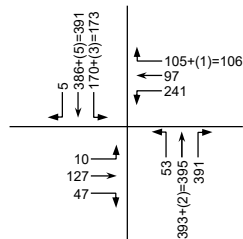
**10** Howland Blvd at Providence Blvd



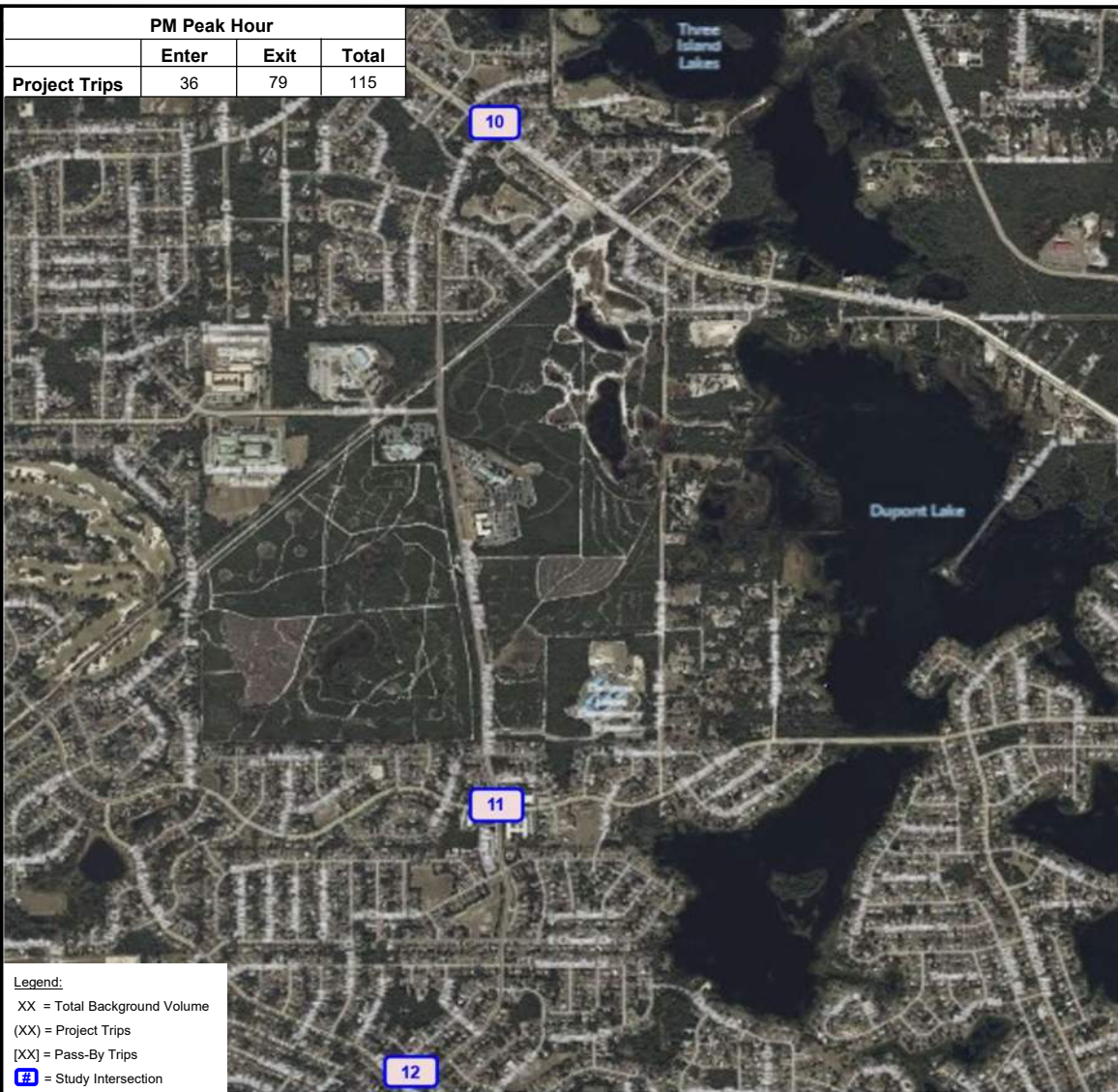
**11** Providence Blvd at Elkcarn Blvd



**12** Providence Blvd at Ft. Smith Blvd



| PM Peak Hour  |       |      |       |
|---------------|-------|------|-------|
|               | Enter | Exit | Total |
| Project Trips | 36    | 79   | 115   |



**Legend:**  
 XX = Total Background Volume  
 (XX) = Project Trips  
 [XX] = Pass-By Trips  
 [f] = Study Intersection

**LEHA Business Park**



**Build-Out PM Peak Hour Traffic Volumes**

Project Number: 5919.02

Figure: 5F



## 2025 Build-Out Intersection Analysis

The study area intersections were analyzed to determine the operational LOS at the time of build-out conditions and the results are provided in Table 10. The Synchro summary sheets are contained in Appendix K.

**Table 10**  
**2025 Build-Out AM and PM Peak Hour LOS – Intersections**  
**LEHA Business Park**

| Intersection                            | Adopted LOS | AM Peak Hour      |              |     |                     |                          | PM Peak Hour      |              |     |                     |                          |
|---|-------------|-------------------|--------------|-----|---------------------|--------------------------|-------------------|--------------|-----|---------------------|--------------------------|
|   |             | Critical Approach | Delay (sec.) | LOS | Overall Highest V/C | Movement(s) with V/C > 1 | Critical Approach | Delay (sec.) | LOS | Overall Highest V/C | Movement(s) with V/C > 1 |
| 1. Graves Ave at Veterans Memorial Pkwy | E           | -                 | 25.5         | C   | 0.850               | -                        | -                 | 53.7         | D   | 0.960               | -                        |
| 2. Graves Ave at Kentucky Ave           | E           | -                 | 24.3         | C   | 0.750               | -                        | -                 | 48.9         | D   | 0.940               | -                        |
| 3. Howland Blvd at I-4 WB Ramp          | E           | -                 | 36.1         | D   | 0.960               | -                        | -                 | 48.4         | D   | 0.960               | -                        |
| 4. Howland Blvd at I-4 EB Ramp          | E           | -                 | 25.2         | C   | 0.880               | -                        | -                 | 26.1         | C   | 0.890               | -                        |
| 5. Howland Blvd at Graves Ave           | E           | -                 | 39.7         | D   | 0.840               | -                        | -                 | 52.8         | D   | 0.950               | -                        |
| 6. Howland Blvd at Forest Edge Dr       | E           | -                 | 31.3         | C   | 0.980               | -                        | -                 | 50.7         | D   | 0.900               | -                        |
| 7. Howland Blvd at Wolf Pack Run        | E           | -                 | 21.1         | C   | 0.790               | -                        | -                 | 16.8         | B   | 0.880               | -                        |
| 8. Howland Blvd at Roseapple Ave        | E           | SB                | 44.2         | E   | 0.368               | -                        | NB                | 129.5        | F   | 0.844               | -                        |
| 9. Howland Blvd at Catalina Blvd        | E           | -                 | 43.2         | D   | 0.950               | -                        | -                 | 42.2         | D   | 0.960               | -                        |
| 10. Howland Blvd at Providence Blvd     | E           | -                 | 23.1         | C   | 0.740               | -                        | -                 | 29.1         | C   | 0.900               | -                        |
| 11. Providence Blvd at Elkcam Blvd      | E           | -                 | 30.6         | C   | 0.840               | -                        | -                 | 26.9         | C   | 0.730               | -                        |
| 12. Providence Blvd at Ft. Smith Blvd   | E           | -                 | 22.9         | C   | 0.730               | -                        | -                 | 24.8         | C   | 0.780               | -                        |

As indicated in Table 10, all of the study area intersections are anticipated to operate within their adopted LOS and/or with a v/c ratio less than 1.00 under 2025 build-out conditions except for Howland Boulevard at Roseapple Avenue. It is common that unsignalized intersections operate at higher levels of service with extended delay on the minor street approaches during peak-hour when conflicted with high major street volumes. Note that even with the excessive delay during the peak-hour, the volume-to-capacity (v/c) ratio is less than 1.0.

## 2025 Build-Out Conditions Roadway Segment Analysis

The build-out PM peak hour two-way LOS for the study area roadway segments, including the improvements recommended under background conditions, are shown in Table 11.

As indicated in the table, all study area roadway segments are anticipated to continue operating within the adopted LOS capacity under build-out conditions except for the segment of Howland Boulevard from I-4/SR 472 to Wolf Pack Run. It is recommended that this segment be widened from 4 to 6 lanes. The analysis of the roadway segment with the recommended widening is also provided in Table 11.

## Queue Length and Turn Lane Analysis

A queue length analysis was conducted to determine the adequacy of the turn lane lengths for existing exclusive turn lanes at the study area intersections. The Synchro results were used to obtain the 95<sup>th</sup> percentile queue lengths expected for each exclusive turn lane during the AM and PM peak hours. Turn lane requirements were evaluated using the Volusia County's Land Development Code (LDC) Section 72-619 Table VI and FDOT Design Manual 2022-2023 Exhibit 212-1.

The resulting recommended turn lane lengths for the study area intersections with existing exclusive turn lanes are provided in Appendix L. Table 12 provides a summary of the maximum required turn lane length under existing, background and build-out conditions. As indicated, there are four (4) turn lanes that are anticipated to result in a deficiency due to the addition of project trips under build-out conditions.



**Table 11  
2025 Build-Out PM Peak Hour Two-Way LOS – Roadway Segments  
LEHA Business Park**

| Roadway                         | Segment                  |                      | No. of Lanes | Adopted LOS | Existing PM Peak Hour Two-Way Volume | Total 2025 Background Volume | Project Distribution | Project Trips | Total 2025 Build-Out Volume | Peak Hour Two-Way Capacity at Adopted LOS | Build-Out PM Volume Exceeds Peak Hour Capacity? |
|---------------------------------|--------------------------|----------------------|--------------|-------------|--------------------------------------|------------------------------|----------------------|---------------|-----------------------------|---|---|
| Howland Blvd                    | I-4/SR 472               | Wolf Pack Run        | 4            | E           | 2,410                                | 3,350                        | 54.0%                | 62            | 3,412                       | 3,410                                     | Yes   |
|                                 | Wolf Pack Run            | Catalina Blvd        | 4            | E           | 2,125                                | 2,972                        | 55.0%                | 63            | 3,035                       | 3,410                                     | No  |
| Catalina Blvd                   | Howland Blvd             | Sixma Rd             | 4            | D           | 1,002                                | 1,198                        | 7.0%                 | 8             | 1,206                       | 3,410                                     | No  |
|                                 | Sixma Rd                 | Lake Helen-Osteen Rd | 4            | D           | 856                                  | 1,026                        | 7.0%                 | 8             | 1,034                       | 3,410                                     | No  |
| Orange Camp Rd                  | Blue Lake Ave            | W Volusia Bltwy      | 2            | E           | 1,075                                | 1,304                        | 2.0%                 | 2             | 1,306                       | 3,410                                     | No  |
|                                 | W Volusia Bltwy          | I-4                  | 4            | E           | 1,170                                | 1,560                        | 0.0%                 | 0             | 1,560                       | 3,410                                     | No  |
| W. Volusia Bltwy (Kentucky Ave) | Taylor Rd                | Orange Camp Rd       | 2            | E           | 910                                  | 1,282                        | 4.0%                 | 5             | 1,287                       | 3,410                                     | No  |
|                                 | Orange Camp Rd           | Cassadaga Rd         | 2            | E           | 755                                  | 1,160                        | 6.0%                 | 7             | 1,167                       | 3,410                                     | No  |
| Graves Ave                      | Veteran's Memorial Pkwy  | Kentucky Ave         | 4            | E           | 1,635                                | 2,154                        | 6.0%                 | 7             | 2,161                       | 3,410                                     | No  |
|                                 | Kentucky Ave             | Normandy Blvd        | 4            | E           | 1,675                                | 2,600                        | 7.0%                 | 8             | 2,608                       | 3,410                                     | No  |
|                                 | Normandy Blvd            | Howland Blvd         | 4            | E           | 1,340                                | 2,440                        | 12.0%                | 14            | 2,454                       | 2,740                                     | No  |
| Veterans Memorial Pkwy          | Harley Strickland Blvd   | Rhode Island Ave     | 4            | E           | 1,480                                | 1,921                        | 2.0%                 | 2             | 1,923                       | 3,410                                     | No  |
|                                 | Rhode Island Ave         | Graves Ave           | 2            | E           | 1,100                                | 1,465                        | 3.0%                 | 3             | 1,468                       | 3,410                                     | No  |
| Providence Blvd                 | Ft Smith Blvd            | Elkcam Blvd          | 4            | E           | 1,075                                | 1,167                        | 13.0%                | 15            | 1,182                       | 3,410                                     | No  |
| Saxon Blvd                      | I-4                      | Finland Dr           | 6            | E           | 3,750                                | 4,379                        | 0.0%                 | 0             | 4,379                       | 5,140                                     | No  |
|                                 | Finland Dr               | Normandy Blvd        | 6            | E           | 3,170                                | 3,702                        | 0.0%                 | 0             | 3,702                       | 5,140                                     | No  |
| Lake Helen-Osteen Rd            | Howland Blvd             | Elkcam Blvd          | 2            | E           | 770                                  | 847                          | 0.0%                 | 0             | 847                         | 1,020                                     | No  |
|                                 | Elkcam Blvd              | Haulover Blvd        | 2            | E           | 865                                  | 952                          | 2.0%                 | 2             | 954                         | 1,230                                     | No  |
| Normandy Blvd                   | Graves Ave (old Howland) | Rhode Island Ave     | 4            | D           | 787                                  | 1,606                        | 5.0%                 | 6             | 1,612                       | 3,410                                     | No  |
| <b>Segments – Improved*</b>     |                          |                      |              |             |                                      |                              |                      |               |                             |   |   |
| Howland Blvd                    | I-4/SR 472               | Wolf Pack Run        | 6            | E           | 2,410                                | 3,350                        | 54.0%                | 62            | 3,412                       | 5,140                                     | No  |

*\*The improved roadway capacities are based on comparable county roadways capacities. These improvements are recommendations only and are not funded for construction.*

**Table 12**  
**Queue Length and Turn Lane Analysis\***  
**LEHA Business Park**

| Intersection                         | Turn Lane | Existing Lane Length (ft) | Existing Maximum Required Turn Lane Length (ft) |        | Background Maximum Required Turn Lane Length (ft) |        | Build-Out Maximum Required Turn Lane Length (ft) |        | Deficiency Due To Build-Out (ft) |
|--------------------------------------|-----------|---------------------------|---|--------|---|--------|--|--------|----------------------------------|
|                                      |           |                           | AM/PM   | Length | AM/PM   | Length | AM/PM  | Length |                                  |
| Graves Ave at Veterans Memorial Pkwy | EBR       | 420                       | PM  | 265    | PM  | 265    | PM   | 265    | 0                                |
| Graves Ave at Kentucky Ave           | WBL       | 240                       | PM  | 290    | PM  | 415    | PM   | 415    | 0                                |
|                                      | WBR       | 475                       | AM  | 290    | PM  | 290    | PM   | 290    | 0                                |
|                                      | SBL       | 345                       | PM  | 640    | PM  | 965    | PM   | 965    | 0                                |
|                                      | SBR       | 200                       | PM  | 340    | PM  | 340    | PM   | 340    | 0                                |
| Howland Blvd at I-4 WB Ramp          | EBR       | 535                       | AM  | 1,250  | AM  | 1,025  | AM   | 1,025  | 0                                |
|                                      | SBR       | 550                       | PM  | 445    | PM  | 495    | PM   | 495    | 0                                |
| Howland Blvd at I-4 EB Ramp          | EBR       | 615                       | PM  | 350    | PM  | 350    | PM   | 350    | 0                                |
| Howland Blvd at Graves Ave           | EBL       | 340                       | PM  | 415    | AM  | 465    | AM   | 465    | 0                                |
|                                      | EBR       | 395                       | PM  | 365    | PM  | 590    | PM   | 590    | 0                                |
|                                      | WBL       | 575                       | PM  | 615    | PM  | 865    | PM   | 865    | 0                                |
|                                      | WBR       | 740                       | AM  | 315    | PM  | 315    | PM   | 315    | 0                                |
|                                      | NBL       | 280                       | AM  | 505    | PM  | 555    | PM   | 555    | 0                                |
|                                      | SBL       | 280                       | PM  | 330    | PM  | 480    | PM   | 480    | 0                                |
| Howland Blvd at Forest Edge Dr       | EBL       | 425                       | PM  | 365    | PM  | 365    | PM   | 390    | 0                                |
|                                      | WBL       | 765                       | PM  | 415    | PM  | 415    | PM   | 415    | 0                                |
|                                      | NBL       | 250                       | AM  | 370    | AM  | 370    | AM   | 370    | 0                                |
| Howland Blvd at Wolf Pack Run        | WBL       | 255                       | AM  | 315    | AM  | 315    | AM   | 315    | 0                                |
| Howland Blvd at Roseapple Ave        | EBL       | 265                       | PM  | 265    | PM  | 265    | PM   | 265    | 0                                |
|                                      | WBL       | 280                       | PM  | 265    | PM  | 265    | PM   | 290    | 10                               |
| Howland Blvd at Catalina Blvd        | EBL       | 365                       | PM  | 740    | PM  | 915    | PM   | 915    | 0                                |
|                                      | WBL       | 275                       | AM  | 290    | PM  | 290    | AM   | 290    | 0                                |
|                                      | NBL       | 445                       | AM  | 245    | PM  | 295    | PM   | 295    | 0                                |
|                                      | SBL       | 240                       | PM  | 345    | PM  | 420    | PM   | 420    | 0                                |
|                                      | SBR       | 425                       | AM  | 645    | AM  | 670    | AM   | 670    | 0                                |
| Howland Blvd at Providence Blvd      | EBL       | 160                       | PM  | 265    | PM  | 265    | PM   | 265    | 0                                |
|                                      | WBL       | 575                       | AM  | 315    | PM  | 340    | PM   | 340    | 0                                |
|                                      | NBL       | 315                       | PM  | 530    | PM  | 680    | PM   | 680    | 0                                |
| Providence Blvd at Elkcarn Blvd      | EBL       | 270                       | AM  | 255    | AM  | 255    | AM   | 280    | 10                               |
|                                      | WBL       | 250                       | AM  | 330    | AM  | 330    | AM   | 355    | 25                               |
|                                      | NBL       | 255                       | PM  | 180    | PM  | 180    | PM   | 180    | 0                                |
|                                      | NBR       | 255                       | PM  | 280    | PM  | 280    | PM   | 280    | 0                                |
|                                      | SBL       | 210                       | PM  | 205    | PM  | 205    | PM   | 205    | 0                                |
|                                      | SBR       | 210                       | PM  | 205    | PM  | 205    | AM   | 230    | 20                               |
| Providence Blvd at Ft. Smith Blvd    | EBL       | 155                       | PM  | 170    | PM  | 170    | PM   | 170    | 0                                |

\*The two longest turn lane lengths are highlighted. The deficiency due to build-out identified above is determined by taking the difference between the build-out maximum required turn lane length and the greatest turn lane length between the existing lane length, the existing maximum required turn lane length, and the background maximum required turn lane length.

## Existing Roadway Collision Analysis

At the request of the Volusia County Traffic Operations staff, an analysis of the existing crash data was conducted using data provided from crash reports from 2020 to 2024 for the development access points and all intersections where build-out improvements are proposed. As no build-out improvements at intersections are proposed, only the project driveway was analyzed. The crash summary report and crash diagram for the intersection are provided in Appendix M. Information on potential countermeasures and the associated Crash Modification Factors (CMF) information for intersections, as obtained from the Crash Modification Factors Clearinghouse are provided for intersections where the average number of crashes per year is five or more. As indicated by the crash data, fewer than five crashes per year were reported at the intersection. Therefore, due to the low crash rate, no countermeasures are recommended at the intersection.

## Alternative Mode Analysis

An alternative mode analysis has been conducted to determine existing and proposed alternate modes of transportation within the immediate project study area. It is noted that the proposed development is located within approximately two miles of Timbercrest Elementary School, Galaxy Middle School, Deltona High School, and Daytona State College Deltona Campus.

Votran, Volusia County's public transportation system, provides transportation alternatives to all urban areas of the county via fixed route buses and paratransit vehicles. The frequency of most routes is one hour, with a few operating on the half-hour. Standard daily service is provided from 6:00 a.m. to 7:00 p.m., Monday through Saturday, with a limited fixed route service at night and on Sunday. At this time, Votran does not provide service along Howland Boulevard or the vicinity of the proposed development.

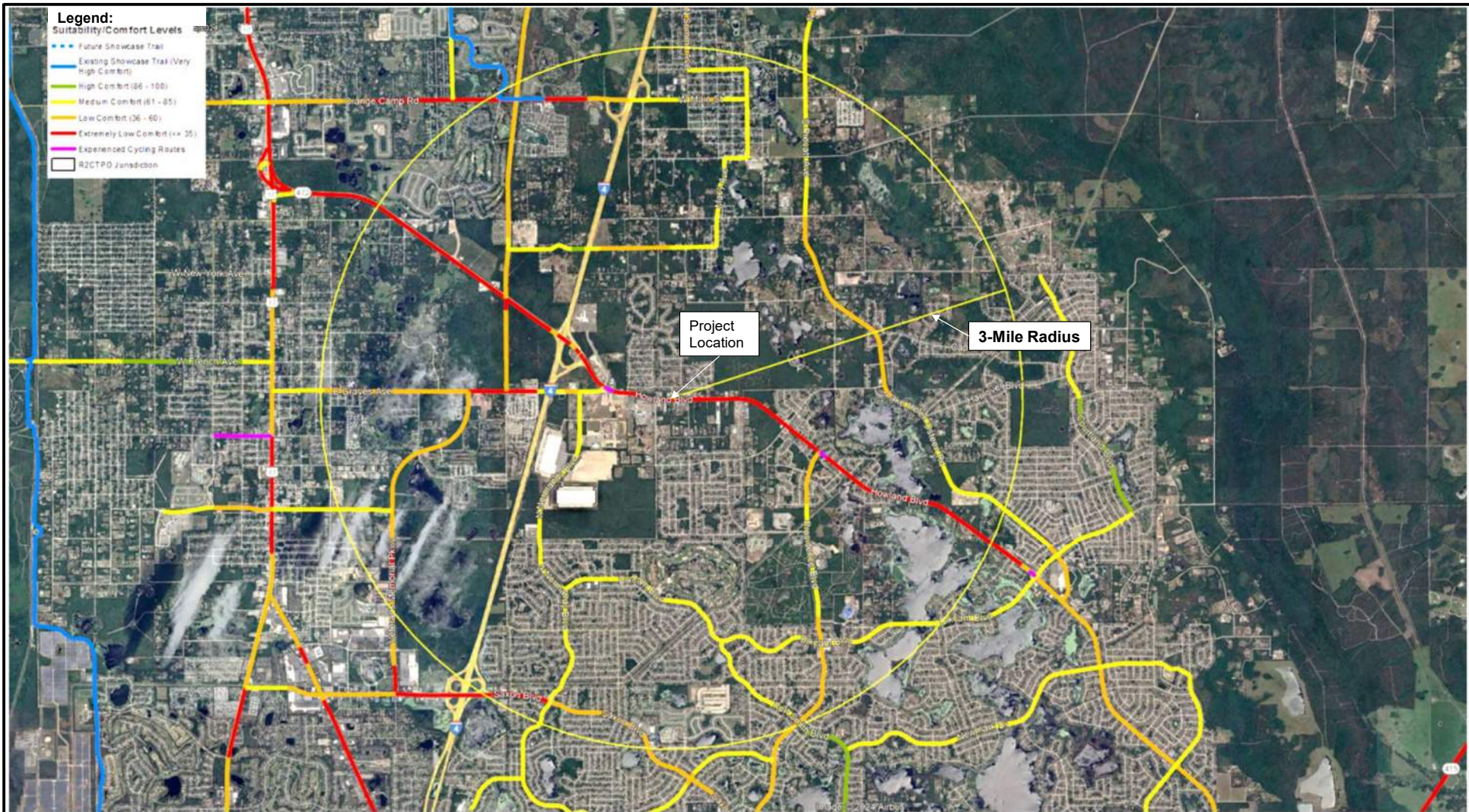
There is an existing 5-foot sidewalk along both the northern and southern sides of Howland Boulevard adjacent to the development. Per Volusia County Land Development Code (LDC), the development will be required to provide sidewalk connectivity to the development. As the development is proposed to contain medical offices, it is recommended that internal sidewalk connectivity be provided, allowing pedestrians to access the external sidewalk network safely and conveniently.

The current Suitability/Comfort Levels for Bicycle Users are presented in Table 13 and graphically depicted in Figure 6. As shown, the area mainly consists of low to extremely low comfort levels for cyclists. As future developments apply for concurrency, the sidewalk connectivity along the adjacent roadways will increase and improve.

**Table 13**  
**Suitability/Comfort Levels for Bicycle Users**  
**LEHA Business Park**

| Roadway                            | Segment                  |                      | Suitability/Comfort Level                 |
|------------------------------------|--------------------------|----------------------|---|
| Howland Blvd                       | I-4/SR 472               | Wolf Pack Run        | Extremely Low/Experienced Cycling Routes  |
|                                    | Wolf Pack Run            | Catalina Blvd        | Extremely Low                             |
| Catalina Blvd                      | Howland Blvd             | Sixma Rd             | N/A                                       |
|                                    | Sixma Rd                 | Lake Helen-Osteen Rd | N/A                                       |
| Orange Camp Rd                     | Blue Lake Ave            | W Volusia Bltwy      | Existing Showcase Trail/Extremely Low     |
|                                    | W Volusia Bltwy          | I-4                  | Existing Showcase Trail/Low/Extremely Low |
| W. Volusia Bltwy<br>(Kentucky Ave) | Taylor Rd                | Orange Camp Rd       | Low/Extremely Low                         |
|                                    | Orange Camp Rd           | Cassadaga Rd         | Low                                       |
| Graves Ave                         | Veteran's Memorial Pkwy  | Kentucky Ave         | Extremely Low                             |
|                                    | Kentucky Ave             | Normandy Blvd        | Medium/Low/Extremely Low                  |
|                                    | Normandy Blvd            | Howland Blvd         | Medium                                    |
| Veterans Memorial Pkwy             | Harley Strickland Blvd   | Rhode Island Ave     | Low/Extremely Low                         |
|                                    | Rhode Island Ave         | Graves Ave           | Low                                       |
| Providence Blvd                    | Ft Smith Blvd            | Elkcam Blvd          | Low                                       |
| Saxon Blvd                         | I-4                      | Finland Dr           | Extremely Low                             |
|                                    | Finland Dr               | Normandy Blvd        | Extremely Low                             |
| Lake Helen-Osteen Rd               | Howland Blvd             | Elkcam Blvd          | Low                                       |
|                                    | Elkcam Blvd              | Haulover Blvd        | Medium/Low                                |
| Normandy Blvd                      | Graves Ave (old Howland) | Rhode Island Ave     | Medium                                    |

Figure 7 documents existing trails, trail gaps, proposed and funded trails. As identified, there are three Connector Trails within a 3-mile radius of the proposed development, including the Cross Volusia Trail and the Providence Boulevard Trail.



- Legend:**
- Suitability/Comfort Levels
  - Future Showcase Trail
  - Existing Showcase Trail (Very High Comfort)
  - High Comfort (86 - 100)
  - Medium Comfort (61 - 85)
  - Low Comfort (36 - 60)
  - Extremely Low Comfort (<= 35)
  - Experienced Cycling Routes
  - R2CTPD Jurisdiction

Project Location

3-Mile Radius

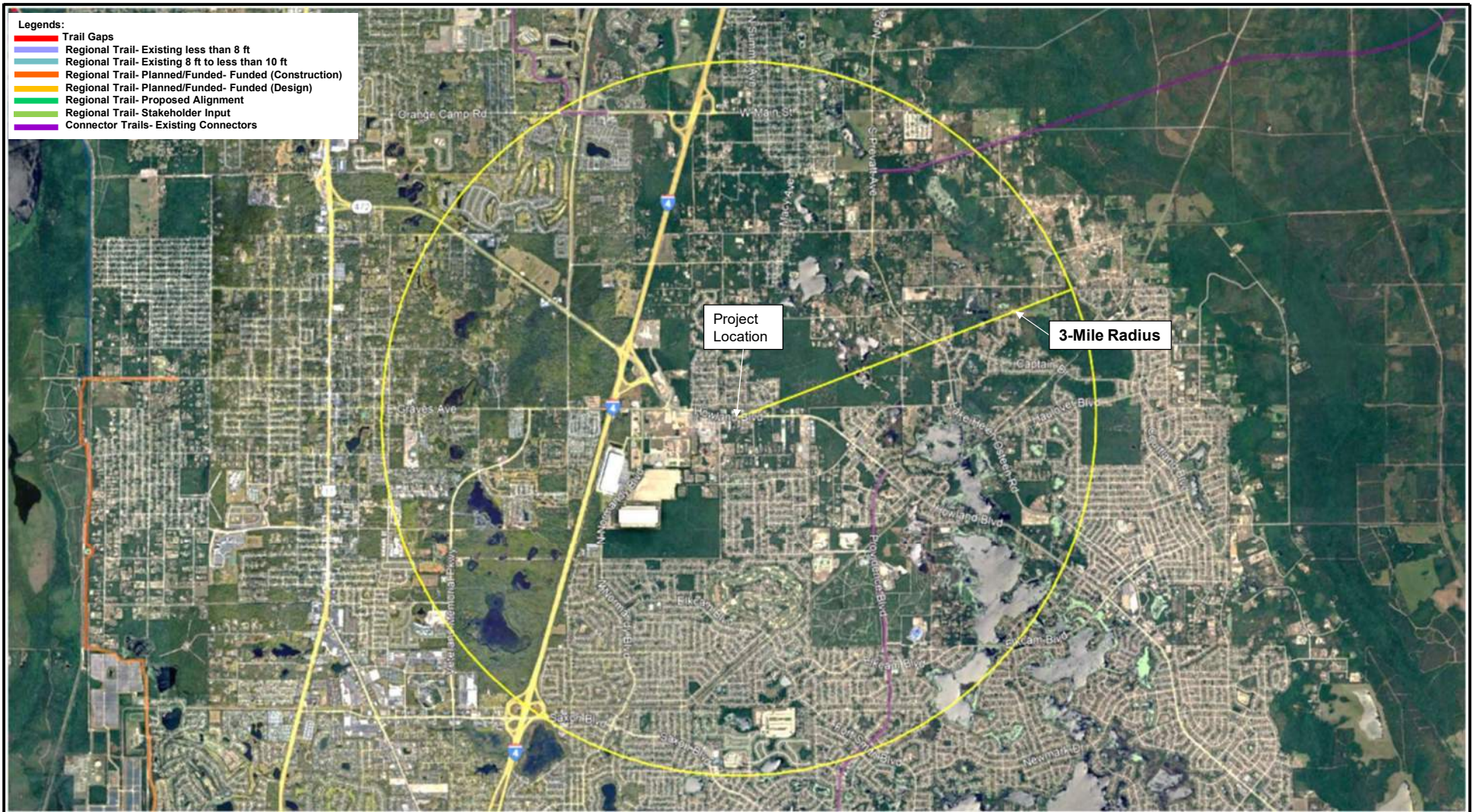
LEHA Business Park



Bicycle Suitability Map

Project No.: 5919.02

Figure: 6



LEHA Business Park



Trail Gaps, Regional Trail Segments and Connector Trails Map

Project No.: 5919.02

Figure: 7

## **Access Analysis**

Access to the development is proposed via one full access driveway on Howland Boulevard across from Roseapple Avenue, creating the fourth leg to the intersection. Howland Boulevard is a four-lane roadway currently maintained by Volusia County with a posted speed of 45 miles-per-hour (mph) adjacent to the development. Therefore, the roadway is required to meet current driveway criteria provided within the Volusia County Land Development Code (LDC) Section 72-619 for an intermediate driveway entrance. Per the Volusia LDC, a right-turn lane is required when the speed limit equals or exceeds 35 miles per hour or if the development will generate 100 or more right-turn movements during the peak hour. Additionally, a right-turn lane will not be required for a driveway abutting a throughfare with four or more lanes. A left-turn lane shall be provided at each driveway when the average daily trip ends of the driveway is 1,000 vehicles or more and/or the average peak hour inbound left-turn volume is 25 vehicles or more.

Based on this criterion and the adjacent speed limit, the following turn lanes are required at the access point:

Howland Boulevard at Project Driveway (full access):

- An eastbound right-turn lane is not required. However, an eastbound right-turn lane is planned to be constructed, as shown in the attached site plan.
- A 280-foot (including a 50-foot taper) westbound left-turn lane is currently present. The required deceleration length of the turn lane is 240 feet and the anticipated queue length is 50 feet. Therefore, the turn lane is anticipated to be deficient in length by 10 feet and will need to be extended to a total of 290 feet long to accommodate the anticipated project traffic.

## **Proportionate Share (PS)**

Based on current Florida Statutes and procedures outlined in the R2CTPO TIA guidelines, the proportionate share shall be calculated based upon the number of trips from the proposed development being approved. The project traffic is then divided by the change in roadway capacity resulting from the recommended improvements to result in a PS percentage. The total estimated construction cost for the improvement is multiplied by the PS percentage to determine the applicant's PS contribution.

The PS formula is to be applied only to those facilities that are determined to be significantly impacted by the project traffic under review. The recommended improvements eligible for PS determination, the estimated improvements costs and PS calculation are to be negotiated once the TIA has been approved.

# 5

## CONCLUSION AND RECOMMENDATIONS

This study was conducted to evaluate the impact the proposed LEHA Business Park project would have on the surrounding roadway network in Deltona, Florida. The development will generate 79 AM peak hour trips and 115 PM peak hour trips. Access to the development is proposed via one full access driveway on Howland Boulevard across from Roseapple Avenue, creating the fourth leg to the intersection. The project build-out year is 2025.

The results of the roadway segment and intersection analyses indicate the need for improvements under background and build-out conditions which are summarized in Tables 14 and 15, below.

**Table 14  
Recommended Improvements - Roadway Segments  
LEHA Business Park**

| Roadway                | Segment                  |                      | When Improvement Required |                         |
|------------------------|--------------------------|----------------------|---------------------------|-------------------------|
|                        | From                     | To                   | Background                | Build-Out               |
| Howland Blvd           | I-4/SR 472               | Wolf Pack Run        | -                         | Widen from 4 to 6 lanes |
| Catalina Blvd          | Howland Blvd             | Sixma Rd             | Widen from 2 to 4 lanes   | -                       |
| Catalina Blvd          | Sixma Rd                 | Lake Helen-Osteen Rd | Widen from 2 to 4 lanes   | -                       |
| Orange Camp Rd         | W Volusia Bltwy          | I-4                  | Widen from 2 to 4 lanes   | -                       |
| Graves Ave             | Veteran's Memorial Pkwy  | Kentucky Ave         | Widen from 3 to 4 lanes   | -                       |
| Graves Ave             | Kentucky Ave             | Normandy Blvd        | Widen from 2 to 4 lanes   | -                       |
| Veterans Memorial Pkwy | Harley Strickland Blvd   | Rhode Island Ave     | Widen from 2 to 4 lanes   | -                       |
| Providence Blvd        | Ft Smith Blvd            | Elkcam Blvd          | Widen from 2 to 4 lanes   | -                       |
| Saxon Blvd             | I-4                      | Finland Dr           | Widen from 4 to 6 lanes   | -                       |
| Saxon Blvd             | Finland Dr               | Normandy Blvd        | Widen from 4 to 6 lanes   | -                       |
| Normandy Blvd          | Graves Ave (old Howland) | Rhode Island Ave     | Widen from 2 to 4 lanes   | -                       |

**Table 15  
Recommended Improvements - Intersections  
LEHA Business Park**

| Intersection                        | When Improvement Required   |           |
|-------------------------------------|---|-----------|
|                                     | Background  | Build-Out |
| 3. Howland Blvd at I-4 WB Ramp      | Optimize splits in the AM peak-hour   | -         |
| 5. Howland Blvd at Graves Ave       | Add 3rd EBT (NBR no longer add lane), Add NBL (dual lefts) and convert NBTL to NBT; Adjust timings to non-split phase; Optimize splits. | -         |
| 9. Howland Blvd at Catalina Blvd    | Optimize splits in the PM peak-hour   | -         |
| 10. Howland Blvd at Providence Blvd | Optimize splits in the PM peak-hour   | -         |

The results of the queue length and turn lane analysis indicated there are four (4) turn lanes that are anticipated to be deficient in length due to the addition of project trips. Table 16 provides a summary of the maximum required turn lane length under existing, background and build-out conditions for these four turn lanes.

**Table 16  
Queue Length and Turn Lane Improvements  
LEHA Business Park**

| Intersection                    | Turn Lane | Existing Lane Length (ft) | Existing Maximum Required Turn Lane Length (ft) |        | Background Maximum Required Turn Lane Length (ft) |        | Build-Out Maximum Required Turn Lane Length (ft) |        | Deficiency Due To Build-Out (ft) |
|---------------------------------|-----------|---------------------------|---|--------|---|--------|--|--------|----------------------------------|
|                                 |           |                           | AM/PM   | Length | AM/PM   | Length | AM/PM  | Length |                                  |
| Howland Blvd at Roseapple Ave   | WBL       | 280                       | PM  | 265    | PM  | 265    | PM   | 290    | 10                               |
|                                 | EBL       | 270                       | AM  | 255    | AM  | 255    | AM   | 280    | 10                               |
| Providence Blvd at Elkcarn Blvd | WBL       | 250                       | AM  | 330    | AM  | 330    | AM   | 355    | 25                               |
|                                 | SBR       | 210                       | PM  | 205    | PM  | 205    | AM   | 230    | 20                               |

The turn lane requirements at the access location are as follows:

Howland Boulevard at Project Driveway (full access):

- An eastbound right-turn lane is not required. However, an eastbound right-turn lane is planned to be constructed, as shown in the attached site plan.
- A 280-foot (including a 50-foot taper) westbound left-turn lane is currently present. The required deceleration length of the turn lane is 240 feet and the anticipated queue length is 50 feet. Therefore, the turn lane is anticipated to be deficient in length by 10 feet and will need to be extended to a total of 290 feet long to accommodate the anticipated project traffic.

The recommended improvements eligible for proportionate share (PS), the estimated improvement cost, and PS calculations are to be negotiated once the TIA results are accepted. Based on the results of this study and the recommendations provided above, the LEHA Business Park is recommended for approval and should move forward with PS negotiations.



# Exhibit C

## LEHA BUSINESS PARK PROPORTIONATE FAIR SHARE AGREEMENT

THIS PROPORTIONATE FAIR SHARE AGREEMENT (the "Agreement") is entered into by and between the following entities: **LEHA INVESTMENT PROPERTIES, INC.**, a Florida profit corporation ("Developer"); **THE CITY OF DELTONA**, a Florida municipal corporation ("City"), whose address is 2345 Providence Boulevard, Deltona, Florida 32725; and the **COUNTY OF VOLUSIA**, a political subdivision of the State of Florida ("County"), mailing address: 123 West Indiana Avenue, DeLand, Florida 32720.

WHEREAS, Developer is the owner of of 10.10± acres of land located at 3141 Howland Boulevard, Deltona, Florida, with Parcel Identification Number(s) 810800000014 (the "Property"); and

WHEREAS, the site plan process for the Property will allow the Leha Business Park project to be developed ("Project"); and

WHEREAS, in connection with the site plan review for the Project, a traffic impact analysis ("TIA"), dated October 16, 2024, of the existing road network in the vicinity of the Project was performed by Developer's traffic consultant in order to determine the availability of roadway capacity to serve the Project; and

WHEREAS, the results of the TIA indicate that there is insufficient roadway capacity in the vicinity of the Property without the anticipated additional traffic impacts of the Project; and

WHEREAS, Florida Statutes § 163.3180(5)(h) (2022) authorizes payment of proportionate fair share mitigation funds as an alternative to demonstrating traffic concurrency in certain circumstances; and

WHEREAS, the TIA identifies certain traffic impacts in the area of the Project ("Impact Area"); and

WHEREAS, Lassiter Transportation Group, Inc., in a traffic impact analysis dated October 16, 2024, calculated the amount of the proportionate fair share for the total buildout of the necessary offsite traffic improvements required for the Project based upon a maximum buildout of 26,250 square feet of medical-dental office buildings, and 637 units of storage facilities, including RV parking, as further detailed in **Exhibit A**, attached hereto and incorporated herein; and

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein, and with the intent to be legally bound and to bind their successors and assigns, the Developer, County, and City do hereby agree as follows:

1. Recitals. The recitals set forth above are true and correct, form a material part of this Agreement, and are incorporated herein by reference.
2. Proportionate Fair Share. For purposes of this Agreement, the calculated “Proportionate Fair Share” for the Property shall be Three Hundred Thirty-One Thousand One Hundred Seventy-Eight and Twelve Cents (\$331, 178.12) Dollars, as more particularly described in **Exhibit B**, attached hereto and incorporated herein (the “Proportionate Fair Share”). Developer shall satisfy the Proportionate Fair Share obligation through payment of the sum of the Proportionate Fair Share (“PFS Payment”). The entire amount of the Proportionate Fair Share shall be paid to the County within thirty (30) days of execution of this Agreement by all Parties. If Developer does not pay the Proportionate Fair Share within one (1) year of the date of the execution of this Agreement by all parties hereto, then the Proportionate Fair Share shall be revised based on the applicable Florida Department of Transportation published inflationary rate. If the proportionate fair-share amount is not paid prior to December 31, 2025, then the TIA must be updated and the proportionate fair-share amount recalculated based on conditions at that time. Once Developer has paid the Proportionate Fair Share, Developer agrees to waive the right to request a return of the Proportionate Fair Share payment.
3. County’s Application of Proportionate Fair Share. The parties intend that the County will apply the Proportionate Fair Share funds received for the purpose of installing improvements in the Impact Area. Developer acknowledges that it has no right to direct or claim a right to direct the application of the Proportionate Fair Share to making any specific public roadway infrastructure improvements.
4. Impact Fees. Subsequent to payment of funds, Developer shall be entitled to County thoroughfare road impact fee credits against and in an amount equal to the Proportionate Fair Share. County Impact fee credits shall be issued as detailed in **Exhibit C**.
5. Developer Acknowledgement/Waiver. Developer acknowledges that the payment of the Proportionate Fair Share does not release the Developer from payment of any other City development or building related fees including other impact fees, or such other City fees as may be prescribed by law.
6. Effective Date. The effective date this Agreement shall be the last date upon which all parties hereto cause this Agreement to be executed as indicated below their respective signatures.
7. Binding Nature of this Agreement. This Agreement shall inure to the benefit of the parties hereto and the subject property, and shall be binding upon any person, firm, or corporation that may become a subsequent owner, successor in interest or assign, directly or indirectly, of the subject property or any portion thereof.

8. Venue. In the event of any claim, action, litigation or proceeding under this Agreement, venue shall be in Volusia County, State of Florida.
9. Recordation. This Agreement will be recorded in the Public Records of Volusia County, Florida, at Developer's expense.
10. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument. The electronic (i.e., facsimile or email) transmittal of an executed copy of this Agreement shall be deemed valid as if an original signature was delivered.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed on behalf of the respective entities, their successors and assigns.

**Signed, sealed and delivered in the presence of: THE CITY OF DELTONA, FLORIDA, a Florida municipal corporation**

\_\_\_\_\_  
**Witness 1**

\_\_\_\_\_  
**Print Name of Witness 1**

\_\_\_\_\_  
**Witness 2**

\_\_\_\_\_  
**Print Name of Witness 2**

**By:** \_\_\_\_\_  
**Santiago Avila, Jr., Mayor**

**Attest:** \_\_\_\_\_  
\_\_\_\_\_, **City Clerk**

**Date:** \_\_\_\_\_

STATE OF FLORIDA  
COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization, this \_\_\_\_ day of \_\_\_\_\_, 2024 by Santiago Avila, Jr. and \_\_\_\_\_, Mayor and City Clerk, respectively, of The City of Deltona, Florida, a chartered municipal corporation, on behalf of the City. They are personally known to me and did not take an oath.

\_\_\_\_\_  
Notary Public

Printed Name:  
\_\_\_\_\_

Commission No. \_\_\_\_\_

Approved as to form by:

**By:** \_\_\_\_\_  
\_\_\_\_\_, City Attorney

Attest

By: \_\_\_\_\_  
George Recktenwald, County Manager

**COUNTY OF VOLUSIA, a political  
subdivision of the State of Florida**

\_\_\_\_\_  
**Jeffrey S. Brower, County Chair**

Approved as to form by:

By: \_\_\_\_\_  
Christopher Ryan, Deputy County Attorney

Signed, sealed and delivered in the presence of:

**LEHA INVESTMENT PROPERTIES, INC  
a Florida profit corporation**

\_\_\_\_\_  
Witness 1

\_\_\_\_\_  
Print Name of Witness 1

By: \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Witness 2

\_\_\_\_\_  
Print Name of Witness 2

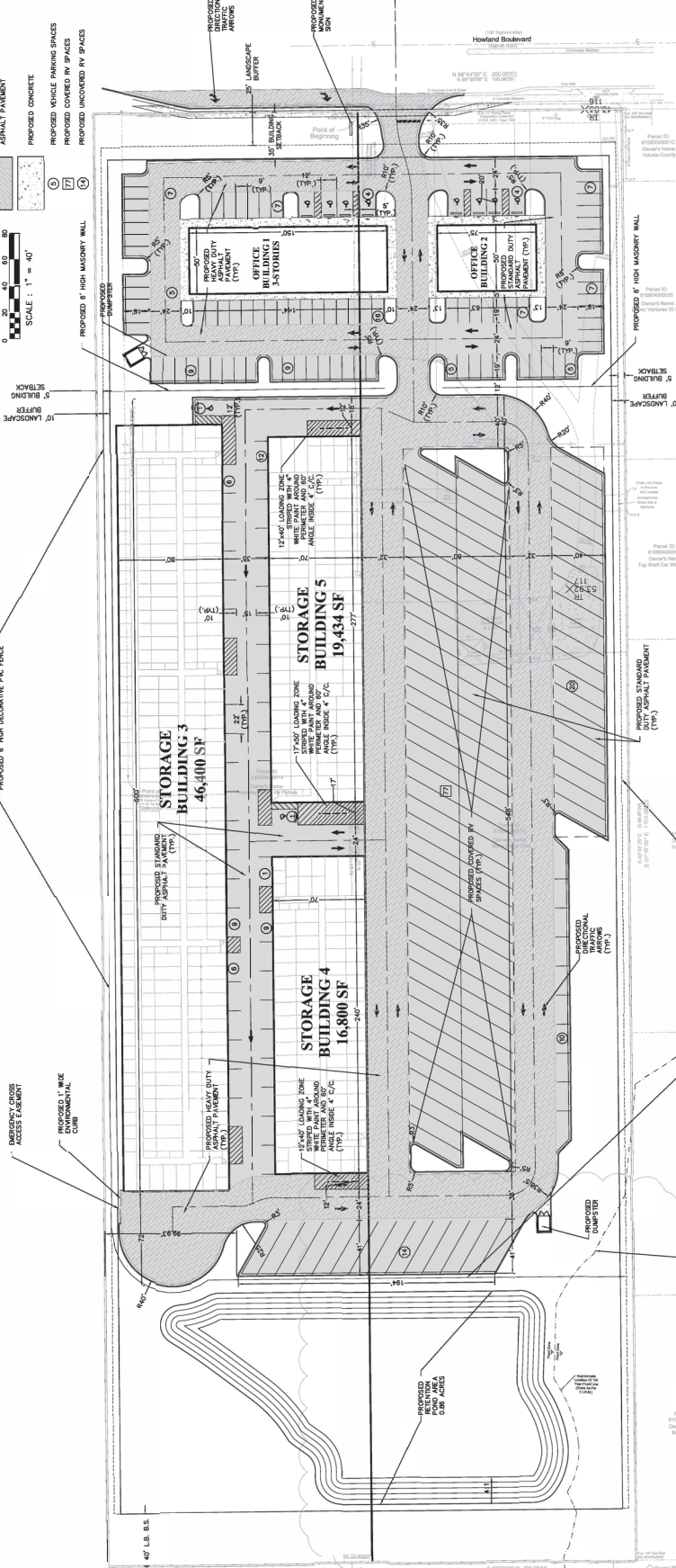
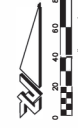
STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me by means of  physical presence or  online notarization, this \_\_\_ day of \_\_\_\_\_ 2024, by \_\_\_\_\_, as \_\_\_\_\_ of **LEHA INVESTMENT PROPERTIES, INC a Florida profit corporation**. He/she is [ ] personally known to me or [ ] produced as identification and did not take an oath.

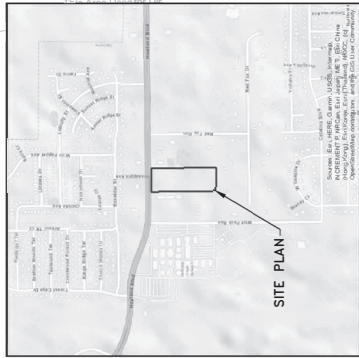
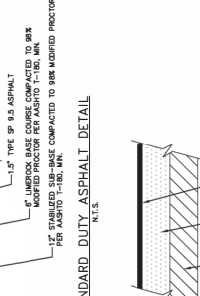
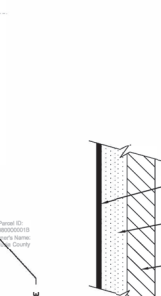
Notary Public \_\_\_\_\_  
Printed Name: \_\_\_\_\_  
Commission No. \_\_\_\_\_

# EXHIBIT A - MASTER PLAN

**LEGEND:**  
 PROPOSED STANDARD DUTY ASPHALT PAVEMENT  
 PROPOSED HEAVY DUTY ASPHALT PAVEMENT  
 PROPOSED CONCRETE  
 PROPOSED VEHICLE PARKING SPACES  
 PROPOSED COVERED RV SPACES  
 PROPOSED UNCOVERED RV SPACES



| AREA  | 439,945 SF                              |
|---|---|
| IMPERVIOUS  | 287,157 SF                              |
| TOTAL PARKING COUNT   | 256                                     |
| BUILDING 1  | 3 STORIES @ 7,500 SF EACH, 22,500 TOTAL |
| BUILDING 2  | 3,750 SF                                |
| MINIMUM PARKING REQUIRED OFFICE (3.25 SPACES PER 1,000 SF)        | 86                                      |
| PARKING PROVIDED OFFICE   | 93                                      |
| MINIMUM PARKING REQUIRED STORAGE (< 1 SPACE PER 10 CUBICLE UNITS) | 52                                      |
| PARKING PROVIDED STORAGE  | 55                                      |
| BUILDING 3  | 46,400 SF                               |
| BUILDING 4  | 16,400 SF                               |
| BUILDING 5  | 19,341 SF                               |
| MIN OPEN SPACE REQUIRED %   | 25%                                     |
| MIN OPEN SPACE PROVIDED %   | 25%                                     |
| FAR   | 0.55                                    |
| TOTAL IMPERVIOUS AREA   | 6.59 AC. (65,277)                       |
| EXISTING FLOOD PLAIN ACREAGE                                      | 0.74 AC. (32,276 SQFT)                  |



VICINITY MAP  
SCALE: 1" = 100'

# EXHIBIT B - Proportionate Fair Share Calculation

## LEHA Business Park - Volusia County Proportionate Share (PS) Determination

| Segment                     | From:                    | To:                  | VC Cost per Mile Model <sup>1</sup> | Estimated Length (miles) | Improvement                | Base Improvement Cost | Additional Cost <sup>2</sup> | Total Estimated Improvement Cost (including 25% CEI when applicable) <sup>3</sup> | Segment Background Volume (a) | Unimproved Lane Capacity (b) | Available Capacity (c)=(b)-(a) | Project Volume (d) | Project Volume over Available Capacity (e)=(d)-(c) | Improved Lane Capacity (f) | Increased Lane Capacity (g)=(f)-(b) | PS (%) (h)=(g)/(b) | Proportionate Share Cost |
|-----------------------------|--------------------------|----------------------|-------------------------------------|--------------------------|----------------------------|-----------------------|------------------------------|---|-------------------------------|------------------------------|--------------------------------|--------------------|--|----------------------------|-------------------------------------|--------------------|--------------------------|
| Howland Blvd                | I-4/SR 472               | Wolf Pack Run        | \$4,723,934                         | 0.73                     | Widen 4 to 6 lanes (Urban) | \$3,448,472           | \$900,000                    | \$5,436,590   | 3,350                         | 3,410                        | 60                             | 62                 | 2  | 5,140                      | 1,730                               | 0.12%              | \$6,283.92               |
| Howland Blvd                | Howland Blvd             | Sixma Rd             | \$4,717,890                         | 0.55                     | Widen 2 to 4 lanes (Urban) | \$2,594,840           | \$650,000                    | \$4,056,049   | 2,972                         | 960                          | 0                              | 8                  | 8  | 3,410                      | 2,450                               | 0.33%              | \$13,244.24              |
| Catalina Blvd               | Sixma Rd                 | Lake Helen-Osteen Rd | \$2,713,321                         | 0.43                     | Widen 2 to 4 lanes (Rural) | \$1,166,728           | \$500,000                    | \$2,083,410   | 1,198                         | 960                          | 0                              | 8                  | 8  | 3,410                      | 2,450                               | 0.33%              | \$6,802.97               |
| Graves Ave                  | Veteran's Memorial Pkwy  | Kentucky Ave         | \$4,777,890                         | 0.33                     | Widen 3 to 4 lanes (Urban) | \$1,555,904           | \$300,000                    | \$2,321,130   | 2,154                         | 1,935                        | 0                              | 7                  | 7  | 3,410                      | 1,475                               | 0.47%              | \$11,015.53              |
| Veteran's Memorial Pkwy     | Kentucky Ave             | N. Normandy Blvd     | \$3,250,379                         | 0.38                     | Widen 2 to 4 lanes (Rural) | \$1,235,144           | \$0                          | \$16,606,430  | 2,600                         | 1,620                        | 0                              | 8                  | 8  | 3,410                      | 1,790                               | 0.45%              | \$74,218.68              |
| Providence Blvd             | Harley Strickland Blvd   | Rhode Island Ave     | \$6,041,666                         | 1.22                     | Widen 2 to 4 lanes (Rural) | \$2,442,000           | \$0                          | \$2,442,000   | 1,921                         | 1,540                        | 0                              | 2                  | 2  | 3,410                      | 1,870                               | 0.11%              | \$2,611.76               |
| Saxon Blvd                  | I-4                      | Elkcam Blvd          | \$4,777,890                         | 0.76                     | Widen 2 to 4 lanes (Urban) | \$4,591,666           | \$0                          | \$4,591,666   | 1,167                         | 1,020                        | 0                              | 15                 | 15   | 3,410                      | 2,390                               | 0.63%              | \$28,817.99              |
| Normandy Blvd               | Finland Dr               | Normandy Blvd        | \$4,717,890                         | 0.35                     | Widen 4 to 6 lanes (Urban) | \$1,651,262           | \$300,000                    | \$2,439,077   | 4,379                         | 4,280                        | 0                              | 0                  | 0  | 5,140                      | 860                                 | 0.00%              | \$0.00                   |
| Normandy Blvd               | Graves Ave (old Howland) | Rhode Island Ave     | \$2,713,321                         | 1.37                     | Widen 2 to 4 lanes (Rural) | \$3,717,250           | \$150,000                    | \$4,834,062   | 1,606                         | 1,150                        | 0                              | 6                  | 6  | 3,410                      | 2,260                               | 0.27%              | \$12,833.79              |
| <b>Segment PS Subtotal:</b> |                          |                      |                                     |                          |                            |                       |                              |   |                               |                              |                                |                    |  |                            |                                     |                    |                          |
| <b>\$155,928.89</b>         |                          |                      |                                     |                          |                            |                       |                              |   |                               |                              |                                |                    |  |                            |                                     |                    |                          |

| Off-Site Intersections                   | FDOT Cost per Mile Model <sup>1</sup> | Estimated Lane Length (feet) | Improvement                   | Base Improvement Cost | Additional Cost <sup>2</sup> | Total Estimated Improvement Cost (including 25% CEI) <sup>3</sup> | Project Volume (a) | Unimproved Available Capacity (b) | Improved Available Capacity (c) | PS (%) (d)=(c)-(b) | Proportionate Share Cost |
|--|---------------------------------------|------------------------------|-------------------------------|-----------------------|------------------------------|---|--------------------|-----------------------------------|---------------------------------|--------------------|--------------------------|
| Howland Blvd at Catalina Blvd            | \$4,000.00                            | -                            | Optimize signal timing splits | \$4,000.00            | \$0.00                       | \$5,000.00  | -                  | -                                 | -                               | 100.00%            | \$5,000.00               |
| <b>Offsite Intersection PS Subtotal:</b> |                                       |                              |                               |                       |                              |   |                    |                                   |                                 |                    |                          |
| <b>\$5,000.00</b>                        |                                       |                              |                               |                       |                              |   |                    |                                   |                                 |                    |                          |

| Turn Lane Length Extensions             | FDOT Cost per 300 ft. <sup>4</sup> | Improvement                       | Additional Cost <sup>2</sup> | Improvement Cost (including 25% CEI) <sup>3</sup> | Lane Length Deficiency Due to Project Trips <sup>5</sup> | Proportionate Share Cost (c)=(b)/300*(a) |
|---|------------------------------------|-----------------------------------|------------------------------|---|--|--|
| Howland Blvd at Graves Ave              | \$210,603.13                       | Extend eastbound left-turn lane   | \$0.00                       | \$263,253.91                                      | 25   | \$21,937.63                              |
| Howland Blvd at Forest Edge Dr          | \$210,603.13                       | Extend eastbound left-turn lane   | \$0.00                       | \$263,253.91                                      | 40   | \$36,100.52                              |
| Howland Blvd at Roseapple Ave           | \$210,603.13                       | Extend westbound left-turn lane   | \$0.00                       | \$263,253.91                                      | 10   | \$8,775.13                               |
| Howland at Catalina Blvd                | \$210,603.13                       | Extend southbound left-turn lane  | \$0.00                       | \$263,253.91                                      | 75   | \$65,813.48                              |
| Howland Blvd at Providence Blvd         | \$210,603.13                       | Extend northbound left-turn lane  | \$0.00                       | \$263,253.91                                      | 25   | \$21,937.63                              |
| Providence Blvd at Elkcam Blvd          | \$210,603.13                       | Extend eastbound left-turn lane   | \$0.00                       | \$263,253.91                                      | 10   | \$8,775.13                               |
| Providence Blvd at Elkcam Blvd          | \$210,603.13                       | Extend westbound left-turn lane   | \$0.00                       | \$263,253.91                                      | 25   | \$21,937.63                              |
| Providence Blvd at Elkcam Blvd          | \$205,980.08                       | Extend southbound right-turn lane | \$0.00                       | \$257,475.10                                      | 20   | \$17,165.01                              |
| <b>Turn Lane Extension PS Subtotal:</b> |                                    |                                   |                              |   |  |  |
| <b>\$144,404.40</b>                     |                                    |                                   |                              |   |  |  |

| PS GRAND TOTAL: | Sept 2024 Consumer Price Index for Transportation | PS and June 2024 CPI |
|-----------------|---|----------------------|
| \$305,233.29    | 8.50%   | \$331,178.12         |

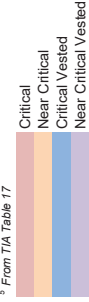
<sup>1</sup> Cost obtained from FDOT Long Range Estimates (LRE) or from Volusia County's Master PFS Table for improvement identified, unless otherwise stated.

<sup>2</sup> Additional costs pertain to site specific modifications associated with the improvement (examples include traffic signal updates, right-of-way, bridge modifications, etc.).

<sup>3</sup> Includes Design & CEI (25%) when applicable per Volusia County Master PFS Table.

<sup>4</sup> Turn lanes are measured in feet and unit cost is based on 300 feet unless otherwise stated.

<sup>5</sup> From TIA Table 17





## EXHIBIT C - Impact Fee Credit Instructions

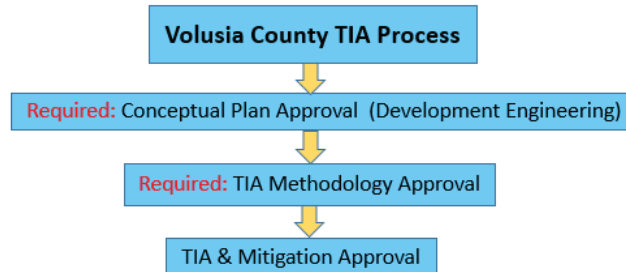


### TRAFFIC IMPACT ANALYSIS, PROPORTIONATE FAIR SHARE PAYMENT & COUNTY TRANSPORTATION IMPACT FEE CREDIT PROCESSES

As of October 1, 2021, Volusia County Traffic Engineering and Development Engineering established the following processes for Use Permit TIA reviews, PFS payments and agreements, and Impact Fee crediting:

#### TRAFFIC IMPACT ANALYSIS (TIA)

The following steps must be followed in *sequential order* to submit TIA methodologies & TIAs to Traffic Engineering:



#### 1) Preliminary Conceptual Plan Coordination: (Allow 1 Week Minimum)

- Conceptual plan approval is required **prior** to the review of the TIA methodology and must be coordinated through the Use Permit process. A Use Permit Application is required to initiate this process. Please contact Land Development staff at (386) 736-5942 if you require information regarding the permit process, application, fees, etc. For further conceptual plan coordination, please contact Joe Spiller of Development Engineering ([jspiller@volusia.org](mailto:jspiller@volusia.org) or 386-736-5967 x 12466).
- Use Permits are ultimately permits for construction. The TIA methodology and conceptual plan approvals are prerequisites for construction plan approval. <https://www.volusia.org/services/growth-and-resource-management/planning-and-development/land-development/applications-and-forms.stml>

#### 2) TIA Methodology Review and Approval: (Allow 1-2 Weeks Minimum)

- TIA methodologies must be submitted through the Use Permit application process and must follow the River to Sea TPO Guidelines. <https://www.r2ctpo.org/planning-studies/tia-guidelines/>
- Development Engineering will send Traffic Engineering's comments to the applicant or applicant's authorized agent, which is typically the Engineer of Record for the proposed development. Traffic Engineering shall identify additional contacts and addresses to be copied regarding the TIA methodology.
- The TIA Methodology approval by Traffic Engineering, valid for 6 months, will be issued once all county comments have been addressed as well as the final methodology is provided. The TIA must be submitted before the methodology expires.

#### 3) TIA Review and Approval: (Allow 2-3 Weeks Minimum)

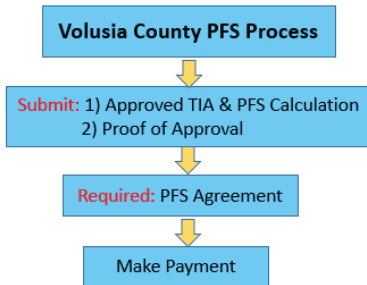
- All TIAs must have an approved methodology. No TIAs will be reviewed without one.
- All TIAs must be submitted through the Use Permit Process. The following items are required -- Incomplete TIA packages will not be reviewed:
  1. TIA PDF containing PFS calculation if applicable
  2. TIA Computer Input Files (Synchro, HCS, Model Distribution Files; etc.)\*\*
  3. Completed TIA Checklist
  4. PFS Calculation (if required)
  5. Response to All Reviewer Comments

*\*\*Please be sure the developer submits the computer input files. These are frequently omitted, which causes TIA review delay.*

- Development Engineering will send TIA comments to the applicant or applicant's authorized agent which is typically the Engineer of Record for the proposed development. Traffic Engineering shall identify additional contacts and addresses to be copied regarding the TIA review.
- If mitigation is required, Traffic Engineering will request a PFS calculation when the TIA has minimal Level of Service analyses comments. Such calculation must be included in the TIA document. Premature PFS calculations will not be reviewed.
- The TIA approval by Traffic Engineering will be issued once all county comments have been addressed and the final TIA, which shall contain the approved PFS calculation (if applicable), is provided.
- PFS mitigation discussions and coordination should be completed prior to starting the PFS payment process. Please contact Tadd Kasbeer, County Engineer at 386-736-5978 x 12177.

## PROPORTIONATE FAIR SHARE (PFS) AGREEMENTS & PAYMENTS

All steps are required to be followed in *sequential order* to be able to make a PFS payment to Volusia County:



1. **First, Submit the Approved TIA and/or PFS Calculation for Validation.** To enter into a PFS Agreement and pay PFS to Volusia County, the project's TIA or technical memorandum will be used to review the proposed PFS calculation and amount for consistency and accuracy regarding construction costs, segment and intersection PFS calculation application, and critical/near-critical road mitigation.

Please Email the following to Melissa Winsett ([mwinsett@volusia.org](mailto:mwinsett@volusia.org)) of Traffic Engineering:

For Developments that Required a TIA – 2 Required Items:

- Local Jurisdiction\*-Approved TIA PDF that includes the PFS calculation
- Proof of TIA/PFS Approval from Local Jurisdiction\* – Dated Correspondence with official's name, signature, contact info

For Developments requiring PFS Payment but weren't required to complete TIAs – 2 Required Items:

- Local Jurisdiction\*- Approved Technical Memorandum\*\* & PFS calculation
- Proof of Tech Memo/PFS Approval from Local Jurisdiction\* – Dated Correspondence with official's name, signature, contact info

\* *Local Jurisdiction: The local government that is officially reviewing and approving the project – typically a city.*

\*\**Technical Memorandum: Document that identifies a project's trip generation and distribution onto roadway segments that has insufficient capacity and require mitigation to obtain approval.*

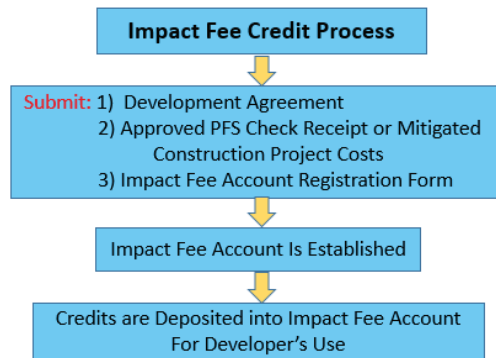
Upon satisfactory confirmation, Traffic Engineering will notify the respective city and County Attorney's Office that the PFS Amount has been validated. The approved PFS amount is valid for one year. Expired PFS will require resubmission to Traffic Engineering.

2. **Second, the Developer Must Enter Into a PFS Legal Agreement (Allow 4-6 Weeks Minimum for County Council Approval):**
  - Once Traffic Engineering Validates the PFS Amount, the developer may coordinate a PFS agreement with the County Attorney's office. Please contact Russ Brown ([rbrown@volusia.org](mailto:rbrown@volusia.org) or [386-736-5950](tel:386-736-5950) x12947).
  - Note: All Parent Tract TIAs must pursue "Master PFS Agreements" in lieu of separate PFS agreements for each lot or parcel with in the parent tract or PUD.
3. **Third, the Developer Must Provide the PFS Payment to Volusia County:**
  - Once the PFS Agreement has been Fully Executed, the PFS Payment can be made.
  - The developer must submit the following two items to Kristen Vieira ([kvieira@volusia.org](mailto:kvieira@volusia.org) or [386-736-5967](tel:386-736-5967) x 12177)
    - 1) Final Executed County PFS Agreement or Master Agreement:
    - 2) PFS check with same amount outlined in the PFS Agreement: Checks can be addressed to: "County of Volusia." In return, a receipt will be provided. PFS checks should be sent to the address below:

Attn: Kristen Vieira  
Volusia County Engineering  
123 West Indiana Avenue, Room 402  
Deland, FL 32720-4262

## IMPACT FEE CREDITS

The following steps are required to be able to obtain impact fee credits for PFS payment or construction mitigation improvement:



### 1. Establish an Impact Fee Credit Account:

- After the PFS payment is made or constructed improvements are complete, contact Engineering & Construction to establish an impact fee credit account and obtain credits. Contact: Scott Carraro ([scarraro@volusia.org](mailto:scarraro@volusia.org), (386) 736-5967 x12287). Please allow 5-7 business days.
  - For Impact Fee Credits related to PFS Payments, please submit the following supporting documentation to Engineering and Construction:
    - Copy of the project's recorded development agreement
    - Copy of your PFS check and receipt.
    - Completed Volusia County Impact Fee Account Registration form\*\* attached. Registration forms require original signatures. Copies or PDF's will not be accepted.
    - .
  - For Impact fee credits related to Constructed Improvements, please submit the following to Engineering & Construction:
    - Copy of the project's recorded development agreement.
    - Actual costs incurred such as executed construction contracts or contractor invoices. Engineers' estimates are not accepted. An itemized tabulation delineating eligible costs is required when contracts or invoices include ineligible items. Note: Eligible costs include design, permitting, right-of-way (if applicable), and construction & CEI.
    - Completed Volusia County Impact Fee Account Registration form\*\*, attached. Registration forms require original signatures. Copies or PDF's will not be accepted.

**\*\*Note:** Your Transportation Impact Fee Credit Account is like a bank account. The "List of Person(s) authorized to sign for this account", on the form, will be the people authorized to make withdrawals from your Transportation Impact Fee Credit Account.

### 2. Allow Staff to Process Information and Make Deposit:

- The submittal will be reviewed by county engineering staff and additional information may be requested of the applicant.
- Engineering & Construction will deliver the original executed Registration Form to County Growth and Resource Management (GRM). Contact: Beth Branton ([bbranton@volusia.org](mailto:bbranton@volusia.org), (386) 736-5924, ext. 12097).
- GRM will not accept executed forms from anyone other than Engineering & Construction.
- GRM will establish the Transportation Impact Fee Credit Account and send the applicant an email with instructions on how to pay County Transportation Impact Fees with credits, or if desired, transfer your credits. Please be aware that the county auditor completes audits our transportation impact fee credit files.

**For questions regarding the following, please call:**

- **Impact Fee Credit Registration** - Scott Carraro at (386) 736-5967, ext. 12287, [scarraro@volusia.org](mailto:scarraro@volusia.org)
- **Impact Fees or Impact Fee Credit Account balance** - Beth Branton at (386) 736-5924, ext. 12097, [bbranton@volusia.org](mailto:bbranton@volusia.org).
- **PFS Agreements**, please contact Russ Brown at [386-736-5950](tel:386-736-5950) x12947, [rbrown@volusia.org](mailto:rbrown@volusia.org)
- **PFS payments**, please contact Kristen Vieira at 386-736-5968, ext. 12177, [kvieira@volusia.org](mailto:kvieira@volusia.org)
- **PFS calculations**, please contact Melissa Winsett at 386-736-5968, ext. 12322, [mwinsett@volusia.org](mailto:mwinsett@volusia.org)



**VOLUSIA COUNTY IMPACT FEE ACCOUNT REGISTRATION**

Growth and Resource Management Department  
Permit Center www.volusia.org/permitcenter  
123 West Indiana Avenue, Room 203  
DeLand, FL 32720-4604

TELEPHONE: DeLand (386) 738-5924, ext. 2087  
Daytona Beach (386) 257-6000, ext. 2087  
New Smyrna Beach(386) 423-3300, ext. 2087  
FAX: (386) 943-7096 E-MAIL: permitctr@co.volusia.fl.us

Collection Zone \_\_\_\_\_

I P Account Number \_\_\_\_\_

NOTE: Credit must be applied to projects within the above zone

**PLEASE PRINT OR TYPE**

Date: \_\_\_\_\_

**APPLICANT/PROPERTY OWNER:**

Name \_\_\_\_\_ E-Mail Address \_\_\_\_\_

Business Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
( ) ( )

Telephone Number \_\_\_\_\_

Fax Number \_\_\_\_\_

**Answer the following questions on the subject property:**

**1. Physical Address:**

**City:**

The correct numeric street address for the site must be furnished. If unsure, contact the City or County where the project is located for the correct address.

**2. Property Tax Parcel Number(s):**

\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-  
\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-  
\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_-

**3. List of Person(s) authorized to sign for this account:**

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

Signature of Applicant/Property Owner: \_\_\_\_\_

**THIS AREA TO BE COMPLETED BY VOLUSIA COUNTY PERSONNEL**

Total credits to be awarded: \$ \_\_\_\_\_

Proportionate Fair Share Payment: Yes \_\_\_ No \_\_\_

Additional Details: \_\_\_\_\_

\_\_\_\_\_  
Approved by (signature)

Tadd Kasbeer, P.E., County Engineer  
Title

\_\_\_\_\_  
Date